August 9, 2024

Resource User Group

Sent via email.

Re: Wetzin'kwa Community Forest Corporation Forest Stewardship Plan extension

The Wetzin'kwa Community Forest Corporation (WCFC) provides this letter to invite the Resource User Group to review and comment on the extension of WCFC's Forest Stewardship Plan (FSP).

The *Forest and Range Practices Act* requires that a community forest tenure have an FSP. The Act also includes provisions to extend an FSP. Please find attached a draft copy of the FSP extension, a draft copy of the FSP Supplemental Information, a brief description of changes made to both documents, and required maps. As the FSP is an extension of the current FSP we have provided a version that shows where changes have been made in the FSP using the Tracked Changes tool in Microsoft Word. We have also provided line numbers and page numbers that we hope provide easy reference for any feedback you may want to provide.

WCFC's current FSP expires in November 2024 and could be extended by five years to 2029. Please provide comments within the next 30 days via email or if you prefer to set up a meeting to discuss the FSP extension, please respond to management@wetzinkwa.ca or phone the undersigned at (250) 847-3680 or (250) 634-4050.

Sincerely,

Sam Coggins, PhD RPF
General Manager
Wetzin'kwa Community Forest Corporation

Cc:
Natasha Lebiadowski, TFT, Project Manager – Operations

Forest Stewardship Plan

for

Wetzin'kwa
Community Forest Corporation

in the

Skeena-Stikine Forest District,

Bulkley Timber Supply Area

Extension Approved: ?????
Extension Submitted: ?????
Original Approved: November 2020
Original Submitted: May 5, 2020

Table of Contents

1.0 INTERPRETATION

1.1 Wetzin'kwa Community Forest K2P - Management Plan

In addition to the current planning framework, including the Bulkley LRMP and its attendant management zones, guidance on the management of the Wetzin'kwa Community Forest licence is also provided in the Wetzin'kwa Community Forest K2P – Management Plan. The approved Wetzin'kwa Community Forest Management Plan sets important management direction through its 'Management Goals' and 'Guiding Principles'. This direction is non-legal from the standpoint of the *Forest and Range Practices Act* and therefore is not addressed specifically in the Wetzin'kwa Forest Stewardship Plan, but is essential to the management of the tenure. See the Supplemental Information document for details on how the Forest Stewardship Plan (FSP) links to the Management Plan.

1.1.1 Forest Stewardship Plan – Contributing Sections

Section 1.0 is a preamble referencing the approved Wetzin'kwa Community Forest Management Plan and is not part of the legal Forest Stewardship Plan. The Sections of this document that comprise the Forest Stewardship Plan are provided in Section 1.2 through Section 8.0, as well as the Appendices A through C. The headings in this FSP and the provisions titled "Background Information", including the contents thereof, are for ease of reference only and are not to be construed as part of, or to serve as an aid to interpreting, this FSP.

1.1.2. Forest Stewardship Plan Extension

This FSP was originally developed in 2020, submitted and approved in the same year. In light of forest landscape planning being undertaken in the Bulkley-Morice Timber Supply Areas (TSA's) Wetzin'kwa Community Forest Corporation submitted a request to Ministry of Forests, District of Skeena-Stikine to extend the FSP.

The extension uses the current FSP as a baseline. The extension is subject to District Manager expectations, as provided in the District Manager Expectations Letter.

Since 2020 reconciliation efforts, provincial and District-level legal and non-legal guidance have each advanced. Therefore, the FSP extension addresses comments and concerns provided through consultation completed with First Nations, specific to the extension. Furthermore, guidance was provided by the Ministry of Forests staff from District of Skeena-Stikine.

1.2 Definitions

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

(a) **"Access Control Point":** is a physical feature or combination of features, such as road deactivation, placed or developed on a road to restrict motorized access.

(b) **"CHR"** means a cultural heritage resource that is the focus of a traditional use by an aboriginal people, has evidence of past use, is of continuing importance to that people and is not regulated under the *Heritage Conservation Act*;

(c) **"Closed Road or Inaccessible Road"** means a road where motorized access is restricted through the use of a one or combination of, access control points, gates , or

road deactivation activities. (note that gated roads that have no other restriction on motorized access are not considered "closed")

(d) **"Effective Date"** means the date the **Term** commences, as specified in Division 3.2

(e) **"FSP Holder"** means a holder of a licence specified in Division 2.1

(f) **"Legislated Planning Date"** means:

(i) subject to sub-clause (ii), the date 4 months before the **Submission Date**; or

(ii) if an enactment or an established objective requires that a date different than the date referred to in sub-clause (i) be applied under this FSP, then that different date;

(g) **"Main Haul Road"** means a forestry road used to access an entire landscape unit or operating area and, for greater certainty, but without limiting the foregoing, means, as of the **Submission Date**, the following road in the community forest agreement area: 7000 road.

(h) **"Map"**, when followed by a number, means the map of that number in Appendix C to this FSP;

(i) **"Mapped Habitat"** means the area of wildlife habitat for a species, as shown on Map 2 of this FSP.

(j) **"Mature Stand"** and **"Over Mature Stand"** is defined as >120 yr in the MHmm2 and ESSFmc/mk/wv; as >100 yr in the ICHmc1/mc2 and SBSdk/mc2; and as >80 yr in the CWHws2.

(k) **"Motorized Access"** means access that permits the passage of insurable 2 wheel drive or 4 wheel drive motor vehicles not intended for off-road usage;

(l) **"Open Road"** means a road without restrictions on motorized access (note that gated roads that have no other restriction on motorized accesss are considered "open");

(m) **"Open Road density"** means the linear distance of open roads per square kilometer.

(n) **"Patch"** means stand of trees that is larger than 1 hectare in size, even aged and differing in age from adjacent stands by more than 20 years;

(o) **"Permanent Road"** means a road intended to facilitate long term harvesting, hauling and silviculture activities, typically planned to be maintained for longer than 5 years.

(p) **"Classified Riparian Feature"** means a stream, wetland or lake with a riparian class determined under Division 3 *(Riparian areas)* of Part 4 (*Practice requirements) of the* **FPPR**;

(q) **"Qualified Professional"** means a person who by education, experience and professional credentials is considerable knowledgeable and able to provide expert advice on a given subject in a given situation.

(r) **"Rotation"** means the time needed from regeneration of crop trees until those trees are harvestable timber and, for greater certainty, but without limiting the foregoing, means for the SBS 80-100 years and for the ESSF/ICH/CWH/MH 100-120 years;

(s) **"Submission Date"** means the date this FSP is submitted for approval, as specified in Division 3.1:

(t) **"Temporary Road"** means a road intended to facilitate short term harvesting, hauling and silviculture activities, typically planned to be an **Inaccessible Road** within two years of construction; and

(u) **"Term**" means the period during which this FSP is in effect, as determined from Divisions 3.2.

(v) **"WTRA"** means Wildlife Tree Retention Area and is an area occupied by wildlife trees that is (a) located in a cutblock, (b) in an area contiguous to a cutblock, or (c) in an area close to the cutblock that the wildlife trees could directly impact on, or directly impacted by, a forest practice carried out in the cutblock.

1.3 Definitions for legislation

In this FSP, unless the FSP specifies, or the context requires, otherwise, words and phrase defined in FRPA or the Forest Act have the same meaning as those definitions as they were on the Legislative Planning Date.

1.4 Abbreviations

(a) **"Act"** means the Forest and Range Practices Act SBC 2002, c.69

(b) **"BEC"** means biogeoclimatic ecological classification

(c) **"DBH"** means diameter at breast height

(d) **"DDM"** means Designated Decision Maker

(e) **"Forest Act"** means the Forest Act RSBC 1996 c.157

(f) **"FPC"** means the Forest Practices Code of British Columbia Act RSBC 1996, c.159 and regulations thereunder

(g) **"FLRNORD"** means the Ministry of Forests, Lands and Natural Resource Operations and Rural Development

(h) **"FRPA"** means the Forest and Range Practices Act and regulations thereunder

(i) **"FPPR"** means the Forest Planning and Practices Regulation B.C. Reg 14/2004

(j) **"FSP"** means the forest stewardship plan

(k) **"FDU"** means a forest development unit specified in Division 4.1

(l) **"OGMA"** means Old Growth Management Area(s)

(m) **"MITD"** means Minimum Inter-Tree Distance

(n) **"NAR"** means the Net Area to be Reforested

(o) **"NDT"** means Natural Disturbance Type

(p) **"VQO**" means Visual Quality Objective

1.5 Organization

This FSP is divided into parts, divisions' paragraphs, subparagraphs, clauses and subclauses, illustrated as follows:

1. Part;
1.1 Division;
1.1.1 Paragraph;
1.1.1.1 Subparagraph;
(a) Clause;
(i) Sub-clause,

and a reference to a paragraph, subparagraph, clause, or sub-clause is to be construed as a reference to a paragraph, sub-paragraph or clause, or sub-clause of the division, paragraph, sub-paragraph, or clause as the case may be, in which the reference occurs.

1.6 Changes to Legislation

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.

1.7 Appendices Part of FSP

The Appendices to this FSP are a part of this FSP and any reference in this FSP to this FSP includes a reference to the Appendices.

1.8 Objectives Cancelled

If an established objective for which a result or strategy is included under this FSP is cancelled, the result or strategy under this FSP pertaining to that objective is no longer practicable, effective on the date of cancellation of the objective.

2.0 APPLICATION OF THIS FSP

2.1 Licences

In respect of Wetzin'kwa Community Forest Corporation this FSP applies to Community Forest Licence K2P.

2.2 Application of this FSP to Permits Issued during Term of Previous FSP

For the purposes of Section 21(2) of the FRPA, with the exception of Stocking Standards, this FSP does not apply to a cutting permit or road permit issued under a previous FSP.

2.3 Application of this FSP's Stocking Standards

In respect of Wetzin'kwa Community Forest Corporation, for the purposes of sections 197(5) and (7) of the Act, the stocking standards described in Part 7 of this FSP apply to the standard units of each cutblock to which those sections apply that:

(a) are within an FDU; and

~~(b)~~ on or after the Effective Date become subject to an obligation to establish a free growing stand.

~~(c)~~

~~(d)~~(b)

2.4 Review and Comment by First Nations and the Public

Engagement and consultation will be completed with First Nations as described in section 5.7 of this plan. In addition the draft plan will be provided for review and comment by First Nations whose values and interests have the potential to be impacted by forest harvesting and road building activities conducted by Wetzin'kwa Community Forest Corporation.

Throughout the **Term** of the plan information about proposed harvesting and road building activities will be provided to a forum of stakeholders, referred to in this Plan as the Resource User Group. Information will be provided in order to elicit feedback. The Resource User Group was formed to encourage stakeholders to participate in conversations about potential recreational impacts.

3.0 TERM OF THIS FSP

3.1 Commencement of Term

The **Term** of this FSP commences on the date this plan is approved by the DDM.

3.2 ~~–~~Length of Term

The length of the **Term** of this FSP is 5 years or as specified by the DDM unless:

(a) the **FSP Holder** elects to replace it with another approved forest stewardship plan; or

(b) it is extended pursuant to FRPA.

4.0 IDENTIFYING FOREST DEVELOPMENT UNITS

4.1 Boundaries of FDU

For the purposes of sections 5(1)(a) of the Act and 14(1) of the FPPR, the boundary of the forest development unit under this FSP are as shown on Map 1, and coincides with the boundary of the community forest.

4.2 Areas Considered Approved

For the purposes of sections 14(3)(j) of the FPPR, the cutting permits and road permits held by the **FSP Holder** under the licence referred to in Paragraph 2.1 and within the FDU- are ~~as follows~~: is a 1 CP: K2P-AA.

~~RP R16534~~	~~CP 238~~
~~CP 237~~	~~CP 123~~
~~CP 124~~	~~CP 307~~

4.3 Designations in Effect Four Months Prior to 2024 Extension ~~Submission~~ of the FSP

Table 1: The designations in effect at the time of the submission of this FSP are

Designation	**Legal Order Reference Number**	**Effective Date**
Fisheries Sensitive Watersheds	F-6-004: Toboggan Creek	December 28, 2005
Bulkley LRMP Objectives set by Government (HLP-2006)	Section 93.4 (1) of the Land Act	November 6, 2006
Bulkley Land and Resource Management Plan – Higher Level Plan Order Appendix 2, 3, and 4	Sections 3(1) and 3(2) of the Forest Practices Code~~, and~~ remain in effect as per section 181 of the FRPA.	December 19, 2000
Visual Quality Objectives Bulkley LRMP – Higher Level Plan Order	Remains in effect as per section 181 of the FRPA.	December 19, 2000
GAR order UWR# U-6-007 Bulkey Mountain Goats	UWR#U-6-007	September 3, 2019

Maps 1, 2 and 3 Appendix C identifies all of the other things, required to be identified in section 14(3)(a)-(i) of the FPPR.

5.0 RESULTS OR STRATEGIES

5.1 Objectives set by Government for Biodiversity

5.1.1 Ecosystem Representation: Core Ecosystems

Background Information	
Summary of Objective	*a. Maintain biodiversity by representing a cross section of naturally-occurring ecosystems in identified core ecosystem on map 2.* *b. Maintain biodiversity by maintaining some areas with forest interior conditions in identified core ecosystems on map 2.* *c. Maintain biodiversity by retaining representative examples of rare and endangered plant communities in core ecosystems on map 2 by* *i. Not expanding range use in core ecosystems; and* *ii. Not timber harvesting in core ecosystems unless it is necessary for:* *a) Protecting the integrity and function of the ecosystem;* *b) Mineral and energy exploration and development;* *c) Providing access to timber outside the core ecosystem that would otherwise be isolated, or* *d) Forest health control where there is a risk to operable timber outside of the core ecosystem*
Source of Objective	*Bulkley LRMP (HLP 2006) Objectives (Objective 1.2) established under section 93.4 (1) of the Land Act*
Date Objective in Effect	November 6, 2006

Result or Strategy

5.1.1.1 Definitions

~~(a)~~**"rare and endangered plant communities"**: means indigenous plant species or plant communities, that have been red listed and blue listed by the BC Ministry of Environment Conservation Data Centre, that are extirpated, endangered or threatened in British Columbia.

5.1.1.2 Limitation on Roads and Harvesting in Core Ecosystems

If harvesting a cutblock or constructing a road to which this FSP applies and within a Core Ecosystem, the FSP Holder will:

(a) not construct a:

(i) permanent access structure; or

(ii) a permanent road,

in that Core Ecosystem unless:

(iii) in the case of either a permanent access structure or a permanent road, there is no other practicable option for conducting the harvesting described in clause (b); in which case roads will be permanently deactivated following harvesting; or

or

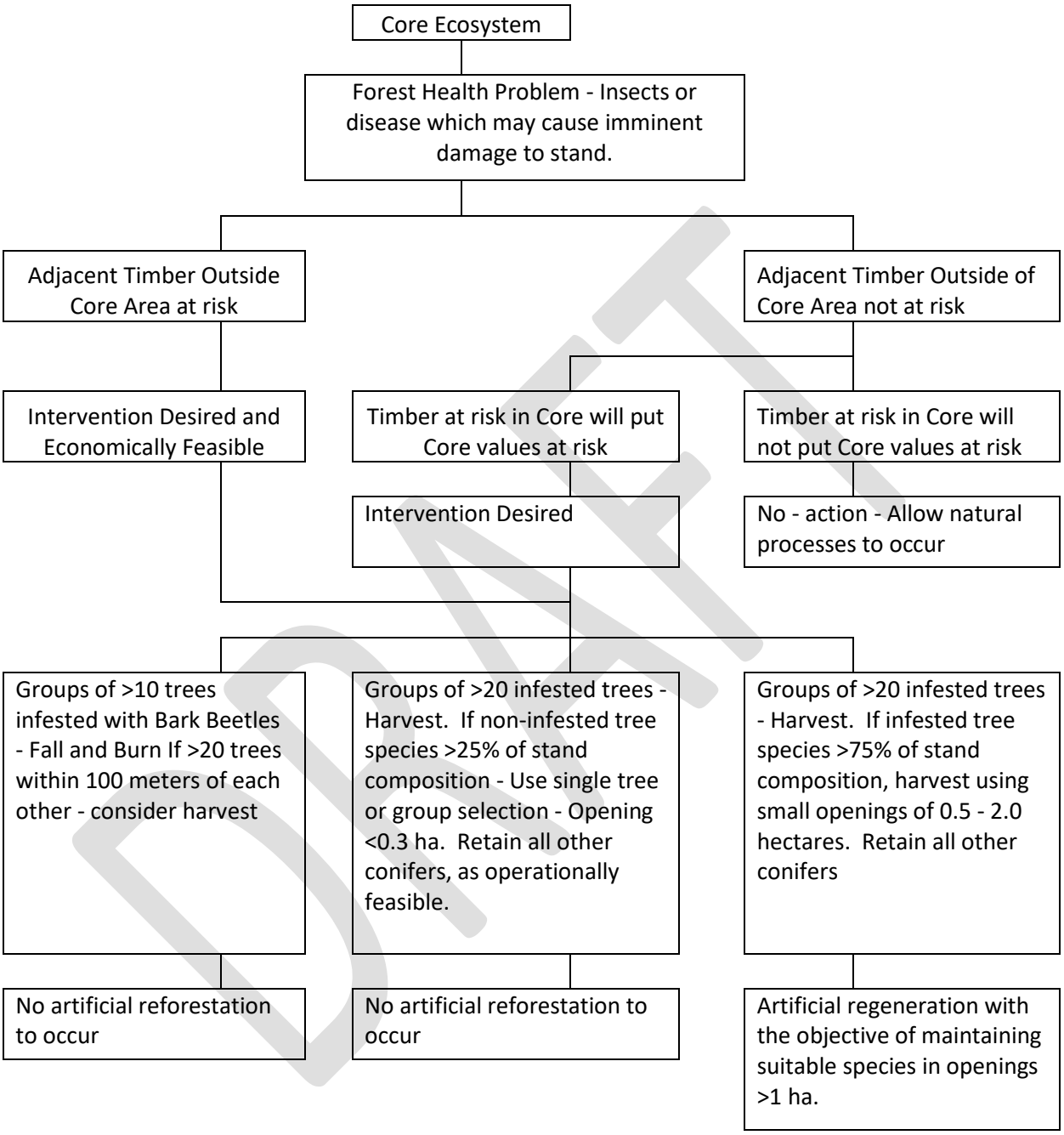
(iv) in the case of a road, it is the only practicable option for accessing operable timber outside the Core Ecosystem; and

(b) undertake that harvesting in accordance with Figure 1.

(c) Ensure timber harvesting and road building do not occur within rare and endangered plant communities located in Core Ecosystems.

(d) This subsection applies where timber in a Core Ecosystem is in danger of being damaged, significantly reduced in value, lost or destroyed, and/or poses a hazard to public safety and the original Core Ecosystem values are at risk. In these circumstances the FSP holder may develop treatment unit plans, subject to approval from the District Manager that facilitates harvesting of the affected timber. In all cases, the Bulkley TSA LRMP balance must be maintained through the introduction of an offsetting constrained area deemed acceptable by the District Manager.

273 **Figure 1. Decision Matrix for Harvesting in Core Ecosystems**
274



Silviculture - Commitment to stocking. Plant only to maintain ecological integrity of the stand.

Site Plans required only for opening >1.0 ha

Where harvesting within CORE Ecosystems results in opening > 1 ha, the Reforestation Target Stocking Standard (TSS) will be equal to the Minimum Stocking Standards (MSS) as defined by Appendix A for the corresponding BEC site series of the site.

5.1.2 Connectivity: Landscape Corridors

Background Information	
Summary of Objective	a. *Maintain, within a managed forest setting, habitat connectivity across the landscape by maintaining landscape corridors dominated by mature tree cover and containing most of the structure and function associated with old forest identified in Map 2.* b. *Maintain within a managed forest setting, movement and dispersal of organisms in landscape corridors identified in Map 2.*
Source of Objective	*Bulkley LRMP (HLP-2006) Objectives (Objective 1.3)*
Date Objective in Effect	*November 6, 2006*

Result or Strategy

5.1.2.1 Definitions

In Subparagraph 5.1.2.2:

(a) **"Functional Old Forest"** means coniferous leading or deciduous leading forest older than 80 years; and

(b) "**Landscape Corridor"** means a landscape corridor shown on Map 5 in the **Bulkley LRMP (HLP - 2006)** as of the **Legislated Planning Date**.

(c) **"Infested"** means an area of timber where on average greater than 30% of the gross volume has been affected by spruce or pine bark beetles.

5.1.2.2 Limits on Activities in Landscape Corridors

If harvesting a cutblock or constructing a road to which this FSP applies within a Landscape Corridor, the **FSP Holder** will:

a) not cause, as a result, and as of the conclusion, of that harvesting, the area of **Functional Old Forest** on Crown forested land associated with a cutblock within a **Landscape Corridor** to be less than 70% of such area;

b) ensure the area of **Functional Old Forest** associated with a cutblock in a **Landscape Corridor** is contained within the landscape corridor being harvested and is not associated with any previous timber harvesting activities.

c) limit the size of each clearcut opening within the cutblock, so that it does not exceed the greater of:

(i) 3.0 hectares; or

(ii) if the **Landscape Corridor** is infested by insects;

A. the area necessary to harvest the infested timber and
B. if the clear-cut opening is greater than 3.0 hectares maintain a minimum 100 meter wide **Functional Old Forest** corridor associated with the clear-cut opening within the **Landscape Corridor**.

d) Within harvested areas greater than 1 ha retained to the extent practicable, a minimum of 60 stems per hectare of which 50% are greater than or equal to 15 cm at DBH.

e) not build a permanent access structure unless no other practicable alternative exists for accessing or extracting timber; and

f) not construct a road outside a cutblock but within the **Landscape Corridor** unless no other practicable option exists for accessing or extracting timber outside the **Landscape Corridor**.

5.1.3 Seral Stage

Background Information	
Summary of Objective	*Maintain biodiversity by maintaining a natural seral-stage distribution specified in the objective*
Source of Objective	*Bulkley LRMP (HLP-2006) Objectives (Objective 1.1)*
Date Objective in Effect	*November 6, 2006*

Result or Strategy

5.1.3.1 Definitions

In Subparagraphs 5.1.3.2 and 5.1.3.3:

(a) **"Seral Stage Target"** means the seral-stage targets by landscape unit and **BEC** subzone set out in Table 1 of Objective 1.1 in the **Bulkley LRMP (HLP - 2006)** as of the **Legislated Planning Date**; and

(b) **"Old"**, **"Mature"** and **"Young"** have the meaning given them in Objective 1.1 in the **Bulkley LRMP (HLP - 2006)** as of the **Legislated Planning Date**.

5.1.3.2 Limits on Activities to Maintain Natural Seral Stage Distribution

Subject to Subparagraph 5.1.3.3, if harvesting a cutblock greater than 1 hectare in size to which this FSP applies, the FSP Holder will not by, and as of the conclusion of, that harvesting, cause the amount of:

(a) **Old, or Mature and Old** timber to fall below; or

(b) **Young** timber to exceed,

the applicable **Seral Stage Target**.

5.1.3.3 Limits on Activities Where Targets Already Not Met

If, as of the commencement of harvesting referred to in Subparagraph 5.1.3.2, the amount of:

(a) **Old or Mature and Old** timber is less than; or

(b) **Young** timber is greater than,

the applicable Seral Stage Target, such harvesting will be limited to an amount that is:

a) consistent with a rate of harvesting that enables the **Seral Stage Targets** for **Old and Mature and Old** to be achieved over a **Rotation** and,

b) where the amount of **Old** is below the applicable **Old Seral Stage Target**, not harvest in areas~~apply for cutting permits~~ containing **Old** seral forest, unless, harvesting is required to develop an access structure and no other practicable alternative exists for accessing or extracting timber.

5.1.4 Wildlife and Biodiversity – Landscape Level.

Background Information	
Summary of Objective	*The objective set by government for wildlife and biodiversity at the landscape level is, 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.~~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.~~*
Source of Objective	*FPPR s.9*
Date Objective in Effect	*January 31, 2004*

Result or Strategy

5.1.4.1 Limitations on Harvesting to Provide Patch Size Distribution

The **FSP Holder** will limit the size of cutblocks it harvests and to which this FSP applies such that the Patch size distribution created by that harvesting, by landscape unit, and natural disturbance types, will trend over time towards the applicable ranges specified in Table 2.

TABLE 2: PATCH SIZE DISTRIBUTION BY NATURAL DISTURBANCE TYPE (NDT).

Natural Disturbance Type	**Patch Size Distribution**		
	<40 hectares	40-80 hectares	>80 hectares
NDT 1 and 2 [a]	30-40%	30-40%	20-40%
	<40 hectares	40-250 hectares	>250-1000 hectares
NDT 3 [b]	10-20%	10-20%	60-80%

[a] includes ESSFmk/wv, MHmm2, CWHws2, ESSFmc and ICHmc1/mc2

[b] includes SBSdk/mc2

5.1.5 Tree Species Diversity

Background Information	
Summary of Objective	*Maintain a diversity of coniferous and deciduous species representing the natural species composition for each biogeoclimatic subzone*
Source of Objective	*Bulkley LRMP (HLP – 2006) Objectives (Objective 1.4)*
Date Objective in Effect	*November 6, 2006*

Result or Strategy

5.1.5.1 Activities Pertaining to Tree Species Diversity

a.) If harvesting a cutblock to which this FSP applies, where the volume of standing timber of deciduous species in the cutblock is greater than 10% of the net merchantable volume, the FSP Holder will retain at the conclusion of that harvesting, deciduous species in wildlife tree retention areas or riparian reserve zones that relate to the cutblock.

b.) Reforest cutblocks as per the stocking standards, which have been designed to maintain a diversity of coniferous species representing the natural species composition for each biogeoclimatic subzone.

5.1.6 Stand Structure

Background Information	
Summary of Objective	*Maintain a diversity of attributes of old forest, such as coarse woody debris and standing dead and live trees, in managed stands in the percentage identified in Table 2 in the objective.*
Source of Objective	*Bulkley LRMP (HLP – 2006) Objectives (Objective 1.5)*
Date Objective in Effect	*November 6, 2006*

TABLE 3. Percentage of cutblock NAR to be retained in wildlife tree retention areas by BEC subzone and landscape unit.

LU	CWHws2	ESSFmc	ESSFmk	ESSFwv	ICHmc1	ICHmc2	MHmm2	SBSdk	SBSmc2
Bulkley Valley		5			3	5		5	7
Telkwa	3	3	1	1				3	7
Copper	5	1		3			1		5
Trout Creek				1	7	3		1	1

Result or Strategy

5.1.6.1 Wildlife Tree Retention

(a) Where the **FSP Holder** completes harvesting on its ~~one or more~~ cutting permit~~s~~ within a landscape unit ensure that, at the end of that 12 month period, beginning on April 1 of any harvest year, the total area covered by wildlife tree retention areas that relate to the combined cutblocks harvested by the **FSP Holder**, will be a minimum percentage of the total harvested area, in each landscape unit and BEC subzone combination identified in Table 3.

(b) If harvesting a cutblock to which this FSP applies that is 15 hectares or greater in size, the **FSP Holder**:

i. will, subject to clause (b), retain at the completion of that harvesting, a wildlife tree retention area that relates to the cutblock of not less than 50% of the amount specified in Table 3;

ii. may relate a wildlife tree retention area required under clause (a) to more than one cutblock if all of the cutblocks that relate to the wildlife tree retention area collectively meet the applicable requirements of clause (a); and

iii. will specify a wildlife tree retention area required under clause (a):

(i) in an area that contains attributes of old forest stand structure such as standing dead trees, standing live trees, and coarse woody debris; or

(ii) where the attributes referred to in sub-clause (i) are not available within the cutblock, in an area that is representative of the cutblock conditions immediately before the harvesting commenced.

(c) If harvesting a cutblock to which this FSP applies that is less than 15 hectares in size, the **FSP Holder**:

i. will subject to clause (b), retain at the completion of that harvesting, a wildlife tree retention area within 500 meters of the ~~cutting permit~~harvested area and that relates to the amount specified in Table 3;

ii. may relate a wildlife tree retention area required under clause (a) to more than one cutblock if all of the cutblocks that relate to the wildlife tree retention area collectively meet the applicable requirements of clause (a).

(d) The **FSP Holder** will ensure that the **WTRAs** applicable under this clause or the trees within such **WTRAs** include one or more of the following attributes:

i. Diversity of wildlife tree retention strategies (e.g., range of patch sizes combined with dispersed trees);
ii. Diversity of habitat types;
iii. Internal decay (heart rot or natural/excavated cavities present
iv. Crevices present (loose bark or cracks suitable for bats);
v. Large brooms present;
vi. Active or recent wildlife use;
vii. Tree structure suitable for wildlife use (eg large nest, hunting perch, bear den);
viii. Large trees for the site (height and diameter) and veterans;
ix. Representative of the size, age and species of the pre-harvest stand

5.1.6.2 Restriction on Harvesting Wildlife Tree Retention Areas

The **FSP Holder** will not harvest a wildlife tree retention area referred to in clause (a) unless:

(a) the trees on the net area to be reforested of the cutblock to which the wildlife tree retention area relates have developed attributes that are consistent with a mature seral condition; or

(b) the **FSP Holder** specifies one or more wildlife tree retention areas that provide an area, number of trees or habitat that is equivalent to the portion of the wildlife tree retention area that is harvested.

5.2 Objectives set by Government for Wildlife

Background Information		
Summary of Objective	Source of Objective	Date Objective in Effect
For mountain goat: (a) GAR Order UWR # U-6-007	*GAR Order UWR#U-6-007*	September 3, 2019
For moose: *(a) Provide woody browse in moose winter habitat identified in Map2.* (b) *Provide visual screening, security, thermal and snow interception cover in moose winter habitat identified in Map 2.*	*Bulkley LRMP (HLP-2006) Objective 2.2*	November 6, 2006
For deer: *(a) Provide woody browse during winter in deer habitat identified in Map 2.* *(b) Provide visual screening, security, thermal and snow interception cover in deer habitat identified in Map 2.* (c) *Provide mature cover adjacent to steep, south facing slopes within deer* habitat identified in Map 2.	*Bulkley LRMP (HLP-2006) Objective 2.6*	November 6, 2006
For wildlife: *Provide for wildlife habitat and populations by implementing and timing road location, development and maintenance activities in a manner that minimizes the effects on these values.*	*Bulkley LRMP (HLP-2006) Objective 2.1*	November 6, 2006

Result or Strategy

5.2.1 Definitions

In Paragraph 5.2.2:

(a) **"Mapped Habitat"** means the area of wildlife habitat for a species, as shown on Map 2 of this FSP;

(b) **"V~~v~~isual ~~s~~Screening"** means the retention to the extent practicable of deciduous species, non-merchantable conifers, non-commercial stems and brush species present when harvesting commences, that are located with:

i) Within the first 30 m adjacent to a Main Haul Road measured from the outside of the road ditch line considering site lines and road safety or

ii) Within 30 m of a classified wetland edge.

5.2.2 Activities Related to Wildlife Species

If harvesting a cutblock to which this FSP applies, the FSP Holder will:

a.) in respect of GAR Order UWR # 6-007 – Bulkley Mountain goats

i.) follow the general wildlife measures outlined in Schedule 1 of the order.

b.) In respect of Mapped Habitat for moose:

i.) retain at the conclusion of such harvesting within such Mapped Habitat:

A.) where the volume of deciduous species is greater than 5% of the net merchantable stand volume of the cutblock immediately prior to commencing harvesting, wildlife tree retention areas or riparian reserve zones containing a deciduous component; and

B.) ~~v~~Visual ~~s~~Screening within a cutblock located immediately adjacent to Main Haul Roads, provided that such screening is available and need not be removed for safety reasons or to fulfill any other requirement under this FSP or at law;

C.) thermal and snow interception cover by the results and strategies specified in sections 5.1.1 (CORE Ecosystems), 5.1.2 (Landscape Corridors), 5.1.3 (Seral Stage) and 5.1.4 (Landscape level biodiversity) and 5.1.6 (stand structure) of this FSP.

ii.) where permitted to do so at law, deactivate all roads within a cutblock in such Mapped Habitat not required for future timber development by date as soon as practicable after the FSP Holder completes for that cutblock all activities required to achieve the stocking standards that apply under this FSP to the regeneration date; and

iii.) not use pesticide or herbicide to treat brush in a cutblock;

c.) in respect of Mapped Habitat for deer:

i. retain at the conclusion of such harvesting within such Mapped Habitat:

A.) where the volume of deciduous species is greater than 5% of the net merchantable stand volume of the cutblock; immediately prior to commencing harvesting, wildlife tree retention areas or riparian reserve zones containing a deciduous component; and

B.) where harvesting occurs adjacent to steep south facing slopes, wildlife tree retention areas adjacent to or on the steep south facing slopes; and

C.) ~~v~~Visual ~~s~~Screening within a cutblock located immediately adjacent to Main Haul Roads, provided that such screening is available and need not be removed for safety reasons or to fulfill any other requirement under this FSP or at law;

D.) thermal and snow interception cover by the results and strategies specified in sections 5.1.1 (CORE Ecosystems), 5.1.2 (Landscape Corridors), 5.1.3 (Seral Stage) and 5.1.4 (Landscape level biodiversity) and 5.1.6 (stand structure) of this FSP.

ii) where permitted to do so at law, deactivate all roads within a cutblock in such Mapped Habitat not required for future timber development by date as soon as practicable after the FSP Holder completes for that cutblock all activities required to achieve the stocking standards that apply under this FSP to the regeneration date; and

iii.) not use pesticide or herbicide to treat brush in a cutblock;

d.) in respect of wildlife general (*Bulkley LRMP Objective 2.1*) the result and strategy are specified in section 5.2.2 (b) and (c).

5.3 Objectives set by Government for Fish Habitat and Water Quality

5.3.1 Objectives set by Government for Water, Fish, Wildlife and Biodiversity within Riparian Areas

Background Information	
Summary of Objective	~~*Without unduly reducing the supply of timber from British columbia's forets,*~~ *The objective set by government for water, fish, wildlife and biodiversity within riparian areas is to conserve, at the landscape level, the water quality, fish habitat, wildlife habitat and biodiversity associated with those riparian areas.*
Source of Objective	*FPPR s.8*
Date Objective in Effect	*January 3, 2004*

Result or Strategy

5.3.1.1 Definition

In Subparagraph 5.3.1.3:

(a) **Directly adjacent"** means the portion of any riparian feature with a riparian management class that due to its location is within its riparian management zone distance from a block harvested under this FSP.

(b) **"RMZ"** means a riparian management zone"

(c) **"Stub"** means a live or dead tree that has had its top removed, leaving a high stump greater than 3.0 m in height.

(d) **"Sensitive S6 Stream"** means the first 500 meter portion of an S6 stream measured from its confluence with a fish bearing stream, and

i.) has a channel width of greater than 1.0 meter, and

ii.) has the same stream order as the most downstream reach of the tributary.

(e) **"Retain"** or **"Retention"** relates to standing live or dead trees. Blowdown of retained trees following harvest of the RMZ are considered retention.

5.3.1.2 Activities in Riparian Areas

The FSP Holder adopts as a result or strategy under this FSP, applicable to the **FDU**, sections 47, 48, 49, 50, 51, 52(2) and 53, 55, 56, 57 and 58 of the FPPR.

The FSP holder will not use within the RMA of a riparian classified feature pesticides or herbicides to treat brush.

5.3.1.3 Retention in RMZ's

For the purposes of section 12(3) and 12.3 (6) of the FPPR, the FSP Holder, when felling trees in a cutblock to which this FSP applies within an RMZ of a riparian feature, will, at the conclusion of that activity:

a.) Retain the amounts referenced in Table 4 for each portion of the RMZ within or **directly adjacent** to the cutblock harvested under this FSP,

Table 4: Retention of trees within RMZ of Wetlands and Lakes and Features with a Riparian Reserve Zone

Riparian Class	Basal Area or Unharvested Area to be retained with Riparian Management Zone
S1A or S1B	>= 20%
S2	>= 20%
S3	>= 20%
W1 or W5	>= 10%
L1-B	>= 10%
L-3	>= 10%
The basal area or areas % retained unharvested shall count both live and dead merchantable and non-merchantable trees and stubs.	

b.) For W3 wetlands, retain within a 10 meter zone not less than 25% of the area or not less than 25% of the pre-harvest stems/ha greater than 15 cm DBH as stubs or full stems.

c.) For S4, S5, or sensitive S6 streams, retain within a 20 meter zone (consists of 10 meters on either side) greater than 50% of the basal area.

d.) For S6 streams, that is not sensitive, retain within a 20 meter zone (consists of 10 meters on either side) greater than 15% of the basal area.

e.) Retain to the extent practicable, the brush and non-merchantable conifer and non-commercial stems present when harvesting commenced
   (i) within 10 meters that begins at both sides of the edge of the stream channel bank of each S4, S5 and sensitive S6 stream within or directly adjacent to a cutblock.
   (ii) within 5meters that begins at both side of the edge of the stream channel bank of each S6 stream that is not sensitive within or directly adjacent to a cutblock
   (iii) within 5 meters for W3 wetlands, L1-A or L3 lakes within or directly adjacent to a cutblock.

5.3.2 Objectives Set by Government for Fish Habitat in Fisheries Sensitive Watersheds

<table>
<tr><th colspan="2">Background Information</th></tr>
<tr><td>Summary of Objective</td><td>
To provide within the normal forest Rotation, special management to the amount, timing and distribution of primary forest activities, in order to;

a.) Conserve the natural hydrological conditions, natural stream bed dynamics and integrity of stream channels in the Fisheries Sensitive Watershed.
b.) Conserve the quality, quantity and timing of water flows required by fish in the Fisheries Sensitive Watershed, and
c.) Prevent the cumulative hydrological effects of primary forest activities in the Fisheries Sensitive Watershed from resulting in material adverse impact on the fish habitat of the watershed.

For the purposed of this FSP, the objective applies to the following fisheries sensitive watershed:
<table>
<tr><th>Watershed Common Name</th><th>Watershed Gazetted Name</th><th>Forest District</th><th>GIS FSW Identifier</th><th>Watershed Code</th></tr>
<tr><td>Toboggan Creek</td><td>Toboggan Creek</td><td>Skeena Stikine</td><td>F-6-004</td><td>4602429</td></tr>
</table>
</td></tr>
<tr><td>Source of Objective</td><td>OrderBCReg 62/2005 dated December 28, 2005 under schedule 2 of the Forest Planning and Practices Regulation.</td></tr>
<tr><td>Date Objective in Effect</td><td>December 28, 2005</td></tr>
</table>

Result or Strategy

5.3.2.1 Definition

In Subparagraph 5.3.2.2, "**FSW**" means the Toboggan Creek Fisheries Sensitive Watershed, as it was on the **Legislated Planning Date** unless, after that date, any fisheries sensitive watershed is reduced in area, in which case from the date of reduction, it means that part of that fisheries sensitive watershed remaining after the reduction.

5.3.2.2 Activities within the Fisheries Sensitive Watersheds

If harvesting a cutblock or constructing a road to which this FSP applies:

a.) The **FSP Holder** will not cause as of the conclusion, and by virtue of that harvesting or construction a target specified in Table 5 to be exceeded, or

b.) If timber is in danger of being damaged, significantly reduced in value, lost or destroyed and/or poses a hazard to public safety. In these circumstances the FSP holder may develop harvest plans, subject to District Manager approval, that facilitate harvesting of the affected timber specified in Table 5.

Table 5: Fisheries Sensitive Watershed Targets

FSW Gazetted Name	Targets			
	Equivalent Clearcut Area (% of total FSW area)	Peak flow Index associated with the FSW	Open Road Density (km/km^2 in the FSW)	Stream Crossing Density (#/km^2 in the FSW)
Toboggan Creek	25	32	1.4	Not Available

5.3.3 Objectives Set by Government for Water in Community Watersheds

Background Information	
Summary of Objective	*Where water is being diverted for human consumption through a licenced waterworks in specified community watersheds is to, prevent, within specified limits of impact on timber supply, the cumulative hydrological effects of primary forest activities within the watershed from resulting in:* *a.) A material adverse impact on the quantity of water or the timing of the flow of the water from the waterworks, or* *b.) The waterworks having a material adverse impact on human health that can not be addressed by water treatment required under* *i.) An enactment, or* *ii.) The licence pertaining to the waterworks.*
Source of Objective	*FPPR s.8.2*
Date Objective in Effect	*February 25, 2005*

Result or Strategy

5.3.3.1 Definition

Community Watershed means the proposed Kathlyn Creek Community Watershed, as shown on FSP map **2**.

5.3.3.2 Activities within a Community Watershed

The **FSP Holder** adopts as a result and strategy under this FSP, applicable to the FDU, sections 59, 60, 61, 62, 63, 82(1), and 84 of the FPPR.

The **FSP Holder** will not use pesticide or herbicides to treat brush within all of the FDU.

If the **FSP Holder** proposes road construction or timber harvesting within the proposed Kathlyn Creek Community Watershed, the **FSP Holder** will harvest within any thresholds/targets established for this watershed. In the absent of any established thresholds/targets, the **FSP Holder** will develop targets and thresholds with the Kathlyn Creek Watershed Group, before any road construction and timber harvesting commences.

If timber is in danger of being damaged, significant reduced in value, lost or destroyed and/or poses a hazard to public safety. In these circumstances the **FSP Holder** may develop harvest plans, subject to District Manager approval, that facilitate harvesting of the affected timber within the community watershed.

5.3.3.3 Activities in watersheds with a licenced waterworks

The FSP holder adopts as a result or strategy under this FSP, applicable to the FDU sections 59, 60, 82(1), and 84 of the FPPR

The **FSP Holder** will not use pesticides or herbicides to treat brush within all of the FDU.

5.3.4 Objectives for Fish Habitat

Background Information	
Summary of Objective	*Provide for lakes containing high-value fish habitat by maintaining lakes in a full spectrum of settings including semi-primitive and primitive*
Source of Objective	*Bulkley LRMP (HLP-2006) Objectives (Objective 3.0)*
Date Objective in Effect	*November 6, 2006*

Result or Strategy

5.3.4.1 Definition

In Subparagraph 5.3.4.2, **"Wilderness Lake"** means a lake that, as of the **Legislated Planning Date**, has been designated by the District Manager to be a wilderness lake unless, after that date, that designation is removed from such lake, in which case from the date of removal, that lake will no longer be included within this definition.

5.3.4.2 Activities Related to Wilderness Lakes

The FSP holder will:

a.) not construct a P**ermanent Road** to which this FSP applies within 1 kilometer of a Wilderness Lake; and

b.) subject to any restrictions in law that limit or prevent it from doing so, as soon as practicable after it has completed use of a road that, was built after the commencement of the **Term**, the **FSP Holder** constructed within 1 kilometer of a

Wilderness Lake, modify the road so that it will not provide **Motorized Access** to that Wilderness Lake.

5.4 Enhanced Timber Development Areas

Background Information	
Summary of Objective	*Enhance available timber supply and improve timber quality on Enhanced Timber Development areas identified in Map 2*
Source of Objective	*Bulkley LRMP (HLP-2006) Objectives (Objective 4.1)*
Date Objective in Effect	*November 6, 2006*

Result or Strategy

5.4.1 Activities Related to Mapped Enhanced Timber Development Areas

The **FSP Holder** will give priority to exercising the timber harvesting rights in **Mature Stands** and **Over Mature Stands** except where:

1) Other resource values reduce this priority;

2) Such harvesting will be inconsistent with the obligations of the **FSP Holder** under this FSP, FRPA, those licences, the Forest Act or any other legislation governing such harvesting;

3) Other areas become a higher priority for harvest because of pest or disease outbreaks, fire suppression or salvage or safety issues;

4) Prioritizing these areas for harvest impairs the ability of the FSP Holder to exercise those timber harvesting rights in a manner consistent with section 6 of the FPPR;

5) Third party harvesting, resource development or use or other action impairs the ability of the **FSP Holder** to harvest according to this priority;

6) The **FSP Holder** is unable to obtain authority to harvest according to this priority; or

7) The **FSP Holder** is directed by government to harvest in a manner inconsistent with this priority.

5.5 Outdoor Recreation

5.5.1 Recreation Opportunities

Background Information	
Summary of Objective	*Maintain or enhance a diverse range of recreational values and opportunities*
Source of Objective	*Bulkley LRMP (HLP – 2006) Objectives (Objective 5.1)*
Date Objective in Effect	*November 6, 2006*

Result or Strategy

In section 5.5.1.1, a recreation trail and site includes the following FRPA section 56 and non-FRPA recreation trails and sites as identified on Map 1:

1.) Dennis Lake Recreation Site (S56)
2.) Piper Down Recreation Site (S56)
3.) Ptarmigan Recreation Trails (S56)
4.) Smithers Community Forest Trails Recreation Site - Recreation Emphasis Area (S56)
5.) Twin Falls Recreation Site (S56)
6.) The Bluff Recreation Site (S56)
7.) Any FRPA section 56 interpretative forest sites, recreation sites and recreation trails, which may be designated, after the **Legislated Planning Date.**
8.) Passby Creek Trail
9.) Toboggan Creek Trail
10.) Glacier Gulch Trail
11.) Silvern Lake Trail
12.) Opal Ridge Trail
13.) Pine Creek Connector Snowmobile Trail
14.) Duthie West Trail
15.) Rockpile (aka Heavenly Bowl) Trail
16.) Backdoor Opal Trail

In section 5.5.1.2, the recreational emphasis area is the same as the Smithers Community Forest Trails Recreation Site.

5.5.1.1 Activities Related to Recreation Trails and Recreation Sites

The **FSP Holder** will not harvest or construct a road to which this FSP applies within the Dennis Lake Recreation Site and Twin Falls Recreation Site, unless directed by the District Recreation Officer in collaboration with the **FSP Holder**.

If harvesting a cutblock or constructing a road to which this FSP applies, the **FSP Holder** will:

1.) If the harvesting or construction
    a.) is adjacent to or on a recreation trail and/or within a recreation site, and
    b.) results in debris on the trail or site preventing access to the trail by recreational users,

as soon as practicable, after conclusion of the harvesting or construction either

c.) remove the debris; or

d.) if the District Manager agrees with the **FSP Holder**, establish new access to the trail in accordance with that agreement.

5.5.1.2 Activities Related to the Recreation Emphasis Area

If the harvesting a cutblock or constructing a road is within the Recreation Emphasis Area, the **FSP Holder** will:

1.) Design forest harvesting and silviculture systems that proactively address windfall hazards.

2.) Not create new access points to the trail unless no practicable alternatives exist.

3.) Not plan forestry activities that will result in cross-country ski trail closures during the period between November 15th and April 1st. If no practicable alternative exists, the FSP holder will:

a.) Plan activities in a manner that has the least impact to access

b.) Notify the Bulkley Valley Cross Country Ski Club prior to any planned forestry, harvesting and road building activities during the period of November 15th and April 1st.

4.) Ensure trails or staging areas used for log hauling and/or skidding will be left free of debris and rutting on completion of forestry activities.

5.) Not paint or blaze trees

6.) Remove, after planting is completed, all flagging used to mark block boundaries

7.) Post signage regarding forestry activities and safety.

5.5.1.3 Activities Related to Recreational Opportunities

The **FSP Holder** will form a Resource User Group to provide a forum for stakeholders to develop recreational opportunities within the community forest area.

5.5.2 Recreation Access

Background Information	
Summary of Objective	*Maintain reasonable access to a diverse range of recreational values and opportunities.*
Source of Objective	*Bulkley LRMP (HLP-2006) Objectives (Objectives 5.2)*
Date Objective in Effect	*November 6, 2006*

Result or Strategy

In section 5.5.2.1, a recreation feature includes the following known recreation trails and sites as identified on Map 1.

1) Dennis Lake Recreation Site
2) Piper Down Recreation Site
3) Ptarmigan Recreation Trail
4) Smithers Community Forest Trails Recreation Site
5) Twin Falls Recreation Site
6) Passby Creek Trail (Rec 203938)
7) Toboggan Creek Trail (Rec 203944)

8) Hudson Bay Glacier Trail (Rec 2041123)
9) Silvern Lake Trail (Rec 0651)
10) Opal Ridge Trail (Rec 241236)
11) Pine Creek Connector Snowmobile Trail (SSA)
12) Duthie West Trail
13) Rockpile (aka Heavenly Bowl) Trail
14) Backdoor Opal Trail
15) Any FRPA section 56 interpretative forest sites, recreation sites and recreation trails, which may be designated, after the **Legislated Planning Date.**

5.5.2.1 Activities Related to Recreation Access

If as of the **Date of Submission**, the FSP Holder is maintaining a road or portion thereof to which this FSP applies over which **Motorized Access** to a recreation trail or recreational site established under **FRPA** or **the FPC** by the **Legislated Planning Date** and still in effect, then if and when the **FSP Holder** deactivates the road, the **FSP Holder** will:

(a) if site conditions permit **Motorized Access** to be retained as of the conclusion of the deactivation, retain that access at that time; or

(b) if site conditions do not permit **Motorized Access** to be retained as of the conclusion of the deactivation, notify the District Manager before deactivating the road and, if the District Manager and the **FSP Holder** agree, not deactivate the road.

5.6 Visual Quality

Background Information	
Summary of Objective	*Manage viewpoints and associated scenic areas as mapped (see Appendix C) and made available at the Landscape Level. (Scenic areas, viewpoints and visual quality objectives have been identified in Landscape Unit Plans and Bulkley Valley SRMP).*
Source of Objective	*Visual quality objectives under the Bulkley LRMP-Higher Level Plan Order signed December 19, 2000 apply to scenic areas in Bulkley TSA as grandfathered through FRPA section 181.*
Date Objective in Effect	*December 19, 2000*

Result or Strategy

5.6.1 Definitions

In Subparagraph 5.6.2,

"Alteration" means a change or something different as a result of the FSP holder conducting timber harvesting;

"Category of Alteration" means the applicable visual quality objective; and

"Public Viewpoint" means a viewpoint as determined as part of the Bulkley TSA Landscape Unit Plans and located on FSP map 3.

5.6.2 Activities in Scenic Areas

a) If the **FSP Holder** harvests timber in a cutblock to which this FSP applies and that is located in scenic areas identified on Map 3 the cutblock will, at the conclusion of harvesting, be consistent with the characteristics of alteration indicated in Table 6 for the applicable Category of Alteration or any category above it in Table 6.

Table 6: Characteristics of Alteration by Alteration Category

Category of Alteration (as identified through the process provided in Objective 10 of the Bulkley LRMP (HLP-2000) as of the Legislated Planning Date)	Characteristics of Alteration Caused by a Cutblock
Preservation	Forest management activities are to have no visible activity from the designated viewpoints.
Retention	Forest management activities may be discernable but not clearly visible to average viewer from the designated viewpoint. Disturbance should appear to be from natural causes.
Partial Retention	Forest management activities may be noticeable but must blend well with the natural appearance of the landscape from the designated viewpoint.
Modification	Forest management activities must have natural appearing characteristics and blend with existing landforms.

b) The characteristics for a cutblock in subparagraph (a) are assessed:
   (i) From the public viewpoint applicable to the cutblock; and
   (ii) Evaluated to the prespective landform(s).

5.6.3 Activities Adjacent to Private Land:

For blocks and roads within 150 meters of private land, the **FSP Holder** will before commencing harvesting and/or road construction ~~applying for a road permit and/or cutting permit will~~ inform the owner of the private land of our intent to construct road and harvest timber within 150 meters of their private land. If the private landowner indicates concerns regarding the road construction or harvesting adjacent to their private land, the **FSP Holder** will make reasonable efforts to come to an agreement with the owner of private land on strategies in regard to constructing road and harvesting timber adjacent to their private property.

5.7 Objectives set by Government for Cultural Heritage Resources

Background Information	
Summary of Objective	*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 of that people, and* *b.) Not regulated under the Heritage Conservation Act.*
Source of Objective	*FPPR s. 10*
Date Objective in Effect	*January 31, 2004*

Result or Strategy

5.7.1 Definition

In Subparagraph 5.7.2
"CHR" means a ***cultural heritage resource*** that is the focus of a traditional use by an aboriginal people, has evidence of past use, is of continuing importance to that people and is not regulated under the *Heritage Conservation Act*;

"qualified person" means a person who, by education and experience, is knowledgeable in identifying CHR features.

"Cultural Heritage Resource Evaluation": means a process conducted by a qualified person and consisting of the following steps:

a.) Record the location and nature of any cultural heritage resource;

b.) Evaluate the direct impact of the planned development on the cultural heritage resource;

c.) If necessary, prepare recommendations in order to conserve, mitigate, or if necessary protect, the CHR considering the factors in FPPR Schedule 1(4), to address the objectives of FPPR s.10.~~;~~

5.7.2 Conserving or Protecting Cultural Heritage Resources

The **FSP Holder** will:

a) Provide information on proposed harvesting and road building activities to affected ~~aboriginal~~ Indigenous groups as per the consultation processes defined by government (for example, in Forestry Consultation and Revenue Sharing Agreements) and document CHR and other values and interests brought to the attention of the FSP holder through this process; and

b) Before completing harvesting and road building activities ~~applying for a cutting permit or road permit~~ the FSP holder will carry out a ~~c~~CHR~~ultural Heritage Resource~~ Evaluation within all blocks and roads; and

c) Where CHR features are found provide copies of completed CHR evaluations to affected aboriginal groups prior to ~~applying for a cutting permit or road permit~~implementing forest harvesting and road building activities;

~~c)~~d) Identify areas in which harvesting and road construction is proposed for the purpose of ~~for~~ potentially affected ~~aboriginal~~Indigenous groups to visit these areas to provide feedback to the FSP Holder about proposed harvesting and/or road construction; and

~~d)~~e) Conduct all harvesting, road construction and mechanical site preparation activities consistent with recommendations given in the CHR evaluation referred to in subparagraphs (b) and (d) that are practicable.

~~e)~~f) If the **FSP Holder** encounters a previously unidentified **CHR** during harvesting, road construction or mechanical site preparation activities:

i.) Modify the activity to the extent necessary to protect the **CHR** until a **CHR Evaluation** is completed;

ii.) Ensure subsequent harvesting, road construction, or mechanical site preparation activities that are carried out in the CHR area are consistent with recommendations given in the **CHR Evaluation**, and

iii.) Communicate the results of the **CHR Evaluation** to the affected aboriginal group(s) and to appropriate government staff within 30 days.

5.8 Objectives set by Government for Soils

Background Information	
Summary of Objective	*~~Without unduly reducing the supply of timber from British Columbia's forests,~~The objective set by government for soils is to conserve the productivity and hydrological function of soils*
Source of Objective	*FPPR s.5*
Date Objective in Effect	*January 31, 2004*

Result or Strategy

5.8.1 Conservation of Soils Values

The **FSP Holder** adopts as a result or strategy applicable in the **FDU** sections 35, 36, 37, 39 and 40 of the **FPPR**.

5.9 Resource Management Zones

Background Information		
Summary of Objective	**Source of Objective**	**Date Objective in Effect**
For Glacier Gulch Resource Management Zone (Sub-unit 10-1): Maintain: • Visual quality within view of major river and highway corridors and recreation focus points, • Rare ecosystems • Water quality for domestic consumption and fish habitat by developing timber in a manner which minimizes the effects on these values.	Objective 26 in Appendix 3 to the **Bulkley LRMP (HLP-2000)**	December 19, 2000
For Silvern Lake Resource Management Zone (Sub-unit 12-2): Maintain: • Backcountry recreation opportunities • Visual quality by harvesting timber only where required for approved mineral and energy exploration and development.	Objective 21 in Appendix 3 to the **Bulkley LRMP (HLP-2000)**	December 19, 2000
For Hudson Bay Mountain Resource Management Zone (Sub-Unit 10-2): Maintain: • Visual quality with view of recreational focus points, and • Recreational opportunities and access By developing timber in a manner which minimizes the effects of these values.	Objective 27 in Appendix 3 to the **Bulkley LRMP (HLP-2000)**	December 19, 2000
For Community Forest Resource Management Zone (Sub-Unit 10-4): Maintain: • Water quality for domestic consumption • The diversity and abundance of existing species • A desired mix of habitats for biodiversity • Recreational and educational opportunities and • Visual quality within the view of highway 16 and recreational focus points By developing timber in a manner which minimizes the effects in these values.	Objective 29 in Appendix 3 to the **Bulkley LRMP (HLP-2000)**	December 19, 2000
For Copper River Resource Management Zone (Sub-unit 12-2): Maintain: • Visual quality within the view of the Copper River corridor and recreational focus points. • Water quality for fish habitat • Important riparian ecosystem • Red and blue listed plant communities • Steelhead fishing opportunities in an uncrowded, natural setting along the Copper River By developing timber in a manner which minimizes the effects on these values, not	Objective 32 in Appendix 3 to the **Bulkley LRMP (HLP-2000)**	December 19, 2000

Background Information		
Summary of Objective	**Source of Objective**	**Date Objective in Effect**
constructing new permanent roads within a 1 kilometer of the copper River, not expanding existing range use, and including the majority of this corridor within the Core Ecosystem.		

5.9.1.1 Definitions

In Paragraphs 5.9.2.1:

1) **"Glacier Gulch RMZ"** means the Glacier Gulch Resource Management Zone (Sub-unit 10-1 as specified in the Bulkley LRMP (HLP-2000),

2) **"Silvern Lakes RMZ"** means the Silvern Lakes Resource Management Zone (Sub-unit 12-1 as specified in the Bulkley LRMP (HLP-2000),

3) **"Hudson Bay Mountain RMZ"** means the Hudson Bay Mountain Resource Management Zone (Sub-unit 10-2) as specified in the Bulkley LRMP (HLP-2000),

4) **"Community Forest RMZ"** means the Community Forest Resource Management Zone (Sub-unit 10-4) as specified in the Bulkley LRMP (HLP-2000),

5) **"Copper River RMZ"** means the Copper River Resource Management Zone (Sub-unit 12-2) as specified in the Bulkley LRMP (HLP-2000),

6) **"RMZ's"** means the Glacier Gulch RMZ, Silvern Lakes RMZ, Hudson Bay Mountain RMZ, Community Forest RMZ, Copper River RMZ, and to the extent any such Resource Management Zone is shown on Map 2.

7) **"Red-listed plant communities"** that are rare, threatened or extirpated in British Columbia and are set out by the British Columbia Ministry of Environment BC Species and Ecosystem Explorer website. The known "red-listed" plant communities are SBSdk 81 and SBSdk 82 at this time.

8) **"Blue-listed plant communities"** that are of special concern in British Columbia and are set out by the British Columbia Ministry of Environment BC Species and Ecosystem Explorer website. The known "blue-listed" plant communities are SBSdk 02, SBSdk 09 and ICHmc1 02 at this time.

5.9.2.1 Activities within Resource Management Zones

1.) The **FSP Holder** will not construct road or harvest timber within the Silvern Lakes RMZ or Hudson Bay Mountain RMZ.

2.) If harvesting a cutblock or constructing a road to which this FSP applies, the **FSP Holder** will in the RMZ's specified in Table 7, achieve the results or carry out the strategies specified for the RMZ in that Table;

TABLE 7: RESULTS AND STRATEGIES APPLICABLE TO RESOURCE MANAGEMENT ZONES

Resource Management Zone	**Applicable Result or Strategy (Paragraph of this FSP)**
Glacier Gulch Resource Management Zone	5.3.1 (Water, Fish, Wildlife, and Biodiversity within Riparian Areas), 5.3.2 (Fisheries Sensitive Watershed), 5.3.3 (Community Watershed), 5.6 (Visual Quality), 5.2.1 (Wildlife), 5.8 (Soils)
Community Forest Resource Management Zone	5.1.1 (Core ecosystem), 5.1.2 (Landscape Corridors), 5.1.3 (Seral Stage), 5.1.4 (Patch Size), 5.1.6 (Stand Structure), 5.3.3(Community Watershed), 5.5.1(Recreation Opportunities), 5.5.2(Recreation Access), 5.6.1 (Visual Quality), 5.2.1 (Wildlife)
Copper River Resource Management Zone	5.3.1 (Water, Fish, Wildlife, and Biodiversity within Riparian Areas 5.5.1 (Recreation Opportunities), 5.5.2 (Recreation Access), 5.6.1 (Visual Quality), 5.2.1 (Wildlife)

3.) In the Glacier Gulch Resource Management Zone and the Copper River Resource Management Zone, the **FSP Holder:**

i) will not harvest or construct a road within a **red-listed plant community**, unless there is no alternative for access or stream crossings, or if harvesting is required to address safety concerns.

ii) Will not harvest will not authorize harvesting that will result in greater than 30% of each occurrence of a **blue-listed plant community** being harvested.

iii) The identification, size and location of red and blue-listed plant communities will be verified by a qualified professional.

6.0 MEASURES

6.1 Measures for Preventing the Introduction or Spread of Invasive Plants

6.1.1 Definitions

"Disturbed Area" means contiguous areas of exposed mineral soil greater than 0.1 ha that are associated with access structures or harvesting activities excluding the running surface of **permanent roads** or pullouts.

"growing season" means the time period between the last freeze in the spring and first frost in the fall.

"Invasive Plants" means those plants listed in the Invasive Plant Regulation.

"revegetated" means the establishment of non-invasive plants over more than 50% of the disturbed area (including the natural in-fill of domestic plants) that could be reasonably expected to support vegetation.

"Seed" means seed that meets or exceeds Canada Common No. 1 forage mixture as defined by the Canada Seeds Act and Regulations and verified noxious weed free and invasive weed free with a certificate of seed analysis.

6.1.2 Measures

In relation to section 17 of the FPPR, the **FSP Holder** will:

(i) Seed disturbed areas no later than the end of the growing season following completion of harvesting or road construction activities.

(ii) If treated disturbed areas are not revegetated within two growing seasons, the area will be re-seeded.

(iii) The following best management practices will be followed as per the 2024 pocket guide for British Columbia Forest workers: *Preventing the Spread of Invasive Species During Forest Management Activities.*

Best management practices include:

1) Incorporate known invasive plant sites into development plans and report new sites as they are discovered.
2) Avoid infested sites for staging, parking, and log sorting, both in the bush and storage yards.
3) Work in uninfested sites before moving to infested sites.
4) Clean equipment before moving to a new work site or region.
5) Inspect and ensure fill and erosion-control materials are free of invasive plants before transport and use.
6) Minimize soil disturbance and maintain native vegetation.
7) Revegetate disturbed sites as soon as possible.
8) Promptly control infestations resulting from forestry activities.

6.2 Measures to Mitigate the Loss of Natural Range Barriers

6.2.1 Definitions

"Range Tenure" means an agreement under the *Range Act* that provides grazing rights.

"known natural range barrier" means a naturally occurring feature or a combination of naturally occurring features, including the following, that stops or significantly impedes livestock movement to and from an area adjacent to the feature or combination of features:

a. a lake, pond, river, creek or wetland;
b. a rock face;
c. a talus slope;
d. an embankment;
e. vegetation;
~~a.~~f. standing or non-standing timber.~~a range barrier that has been communicated to the **FSP** holder by a range tenure holder and/or the Ministry of Forests and Range.~~

The list of naturally occurring features within the definition is not limiting or meant to exclude other naturally occurring features. Therefore, a natural range barrier may include other types of naturally occurring features, if the feature(s) stop or significantly impedes the movement of livestock.

6.2.2 Measures

In relation to section 18 of the FPPR, the **FSP Holder** will:

(a) Annually, and at least 30 days before harvesting a cutblock or constructing a road to which this FSP applies and that is located within an area subject to a **Range Tenure**, inform the holder of that **Range Tenure** of the harvesting or construction; and

(b) where the **Range Tenure** holder or other qualified person indicates the harvesting or construction referred to in clause (a) will remove or render ineffective a known natural range barrier that a holder of a Range Tenure relies upon for the purposes of that Range Tenure:

(i) come to an agreement with that holder on mitigation measures, and
(ii) implement mitigation measures in accordance with the agreement referred to in subclause (i).

7.0 STOCKING REQUIREMENTS

7.1 Definitions

In Part 7.0:

a) **"NSR"** means not containing a regenerated stand meeting the stocking standards in Divisions 7.3 and 7.4 and Appendices A and B of this FSP;

b) **"M Value for Stocking and Free Growing Surveys**" means the maximum number of healthy, well-spaced trees that may be tallied in a single plot as calculated by dividing the target stocking standard for the standards unit by the plot multiplier, which, if not a whole number, is rounded to the nearest higher whole number; and

c) **"Countable Conifer"** means a conifer tree with a height that is:

(i) 30 % of the median height of the preferred and acceptable well-spaced trees in the same survey plot, if that median height is less than 2 meters; or

(ii) 50 % of the median height of the preferred and acceptable well-spaced trees in the same survey plot, if that median height is 2 meters or greater.

7.2 Election

For the purposes of section 16(1) of the FPPR, section 44(1) of that regulation will apply to each area to which this FSP applies where the **FSP Holder** is required to establish a free growing stand.

7.3 General Standards

For the purposes of section 16(3) of the FPPR, for each area to which this FSP applies where the Agreement Holder is required to establish a free growing stand:

a) the applicable regeneration date and applicable stocking standards referred to in section 44(1)(a) of the FPPR, and

b) the applicable free growing date and applicable stocking standards referred to in section 44(1)(b) of the FPPR, and

c) for the purposes of regeneration surveys and free to grow surveys the M Value for Stocking and Free Growing Surveys and Countable Conifer as defined in Division 7.1 will apply,

are, subject to the special circumstances in Division 7.4, as set out in Appendix A opposite the BEC site series that occupies the largest portion of the standards unit.

7.4 Special Circumstances

The special circumstances referred to in Division 7.3 are:

a.) where harvesting within Core Ecosystems results in openings > 1 ha, the Reforestation Target Stocking Standard (TSS) will be equal to the Minimum Stocking Standards (MSS), as defined by Appendix A for the corresponding BEC site series of the site, except if fire management stocking standards (WUI-HRV) are used.

b.) where a standards unit does not meet the tree height over deleterious competition at free growing specified in Appendix A:

i.) deleterious competition at the time of free growing will be assessed using Appendix 13 of the Silviculture Procedure Manual, May 1, 2018; and

ii.) the individual tree free growing assessment method (quadrant method) in *Appendix 13* will apply to all BEC subzones in the Bulkley Timber Supply Area; and

iii.) the definition of upland cottonwood in *Appendix 13* will be taken to mean any cottonwood not growing on a floodplain or fluvial deposit;

c.) aspen, cottonwood and birch are not considered deleterious competition:

i.) within the riparian management area of a stream, wetland or lake; or

ii.) where there is an incidence of greater than 20% of spruce crop trees by number affected by *Pissodes strobi* (White Pine Weevil);

d.) Whitebark pine is a federally blue-listed under the *Species At Risk Act*. Best management practices have been identified in the *Retain Whitebark pine* guidelines. The following practices will be used to ensure the continued

i. Harvesting inside Whitebark pine 2 km Regeneration and Recovery Zone buffers will be avoided whenever possible.

ii. If harvesting occurs inside these Zones, individual or groups of healthy whitebark pine trees will identified and will be retained in wildlife tree patches.

iii. Whitebark pine may be prone to wind damage (blow down), as such:

a. A minimum of eight trees will be retained to protect whitebark pine trees, within one tree length of an individual whitebark pine,

b. Patches will be oriented to the predominant wind direction,

c. Trees will be retained with long vertical crown length,

d. Trees of average height will be retained,

iv. After harvesting is completed, logging slash will be removed from the base of residual Whitebark pine trees.

v. Where Whitebark pine trees were identified in a harvested area within the Regeneration and Recovery Zones, Whitebark pine trees will be planted according to the attached stocking standards.

vi. Planting sites will be chosen that have little competing vegetation.

vii. Harvest machine operators or hand fallers will be trained to avoid harvesting healthy whitebark pine trees.

~~i.~~

~~d.)~~e.) brush species within 10 meters of a **Classified Riparian Feature** are not considered deleterious competition;

~~e.)~~f.) for a standards unit comprised of more than one BEC site series:

i.) the preferred and acceptable species for the standards unit includes all of the preferred and acceptable species for all of the BEC site series comprising the standards unit;

ii.) the preferred and acceptable species will be planted only where they are ecologically suited within the standards unit; and

iii.) the target stocking standards (stems per hectare), minimum preferred and acceptable (stems per hectare), minimum preferred (stems per hectare), minimum inter-tree distance (m) and minimum height at free growing (m) will be those of the dominant site series;

~~f.)~~g.) the maximum density of countable coniferous stems is 10,000 per hectare for all BEC site series, except for the fire management stocking standards, where the maximum density of countable coniferous stems will be 5,000 per hectare for the SBSdk and SBSmc2 BEC subzones.

~~g.)~~h.) The minimum inter-tree distance:

i.) May be reduced from 2.0 m to 1.6 m where Mechanical Site Preparation has been applied; or

ii.) Will be reduced to 1.6 m for hygric and sub-hygric Standard Units (SUs) identified by Appendix A, the minimum Inter-Tree Distance (MITD) is:

A. One Metre for a pair of well-spaced trees, if the next well-spaced tree is

B. 1.6 meters from either well-spaced trees in the pair.

~~h.)~~i.) exotic species planted in research trials, not exceeding the lesser of 2 hectares or 10% of the NAR of a cutblock, will be considered preferred trees;

~~i.)~~j.) for crop trees to be acceptable at the Regeneration Date and the Free growing Date they must meet the:

i.) Appendix 10 of the Silviculture Procedure Manual May 1, 2018.

ii.) Prince Rupert Forest Region, Regional Operating Standards # 1, Acceptability Criteria for Balsam Advanced Regeneration, July 22, 1997; and

iii.) Appendix 10b of the Silviculture Procedure Manual May 1, 2018

~~j.)~~k.) Partial cutting Silviculture Stocking Standards, Appendix B, may be applied to standard units, where partial cutting silviculture systems have been implemented, and where the retained stems greater than 12.5 centimeters at breast height have a combined basal area greater than 5 meter^2/hectare.

~~k.)~~l.) Division 7.3 does not apply to an area:

i.) Where the timber harvested was in danger of being significantly reduced in value, lost or destroyed; and

ii.) The harvested area, when taken together with an adjoining harvested area, will not result in an opening with a contiguous NSR greater than or equal to 1 hectare.

7.5 Intermediate Cutting or Special Forest Products

If the FSP Holder proposes to carry out timber harvesting on an area that is subject to:

a) commercial thinning,
b) removal of individual trees,
c) a similar type of intermediate cutting,
d) harvesting of special forest products,

and as such, section 16(4) and 44(4) of the FPPR have application to this FSP. The FSP holder will for each standards unit in which it carries out timber harvesting referred to in (a) to (d), for a period of 12 months after completion of harvest:

(i) remove less than 50% of the basal area that existed on the standards unit at commencement of harvest;

(ii) retain at the conclusion of harvesting trees of form, health and vigor representative of the original stand condition; and

(iii) create an opening not greater than 0.1 hectares.

8.0 SIGNATURE(S)

Signature of Person Required to Prepare the Plan Extension

General Manager for Wetzin'kwa Community Forest Corporation and Holder of this FSP

~~May 5, 2020~~

Authorized Signatory, ~~Jay Baker~~Sam Coggins, R~~P~~F~~T~~ Date

Signature of Person Preparing the Plan Extension

I certify that this document is prepared to the standard expected of a member of the Association of British Columbia Forest Professionals

~~May 5, 2020~~

~~David A Louwerse~~Sam Coggins, RPF ~~3562~~4756 Date

Appendix A: Even-aged Stocking Standards

Bio-geo-climatic											
Classification			Species		Stocking(i)			Regen	Assessment	Min. Height(ii)	
Zone/SZ	Series	Standards ID	Preferred (p)	Acceptable (a)	Target (well-spaced/ha)	MIN pa	MIN p	Delay (Max yrs)	Latest (yrs)	Species	Ht (m)
ESSFmc	01	1064481	Bl Sx	Pl[34] Pa	1200	700	600	7	20	Pl	1.60
										Others	0.80
ESSFmc	02	1064482	Pl	Bl Sx Pa	1000	500	400	7	20	Pl	1.20
										Others	0.80
ESSFmc	03	1064483	Pl	Bl Sx Pa	1000	500	400	7	20	Pl	1.20
										Others	0.60
ESSFmc	04	1064484	Pl Bl Sx	Pa	1200	700	600	7	20	Pl	1.60
										Others	0.80
ESSFmc	05	1064485	Bl Sx	Pl34 Pa	1200	700	600	4	20	Pl	1.60
										Others	0.80
ESSFmc	06	1064486	Bl Sx	Pl34 Pa	1200	700	600	4	20	Pl	1.60
										Others	0.80
ESSFmc	07	1064487	Bl Sx[32]		1200	700	600	4	20	All	0.80
ESSFmc	08	1064488	Bl Sx[32]		1000	500	400	4	20	All	0.60
ESSFmc	09	1064489	Bl[1] Sx[1,32]		1000	500	400	4	20	All	0.60
ESSFmc	10	1064490	Bl[1] Sx[1,32]		1000	500	400	4	20	All	0.60
ESSFwv	01	1064491	Bl Se	Hm Hw Pl[34] Pa	1200	700	600	7	20	Pl	1.60
										Others	0.80
ESSFwv	02	1064492	Pl	Bl Hm Se Pa	1000	500	400	7	20	Pl	1.20
										Others	0.80
ESSFwv	03	1064493	Pl	Bl Hm Se Hw Pa	1200	700	600	7	20	Pl	1.60

Bio-geo-climatic											
Classification		Species			Stocking(i)			Regen	Assessment	Min. Height(ii)	
Zone/SZ	Series	Standards ID	Preferred (p)	Acceptable (a)	Target (well-spaced/ha)	MIN pa	MIN p	Delay (Max yrs)	Latest (yrs)	Species	Ht (m)
										Others	0.80
ESSFwv	04	1064494	Pl Bl	Se Hm Pa	1200	700	600	7	20	Pl	1.60
										Others	0.80
ESSFwv	05	1064495	Bl Se	Hm Hw Pl34 Pa	1200	700	600	4	20	Pl	1.60
										Others	0.80
ESSFwv	06	1064496	Bl Se^{32}	Hm Hw Pa	1200	700	600	4	20	All	0.80
ESSFwv	07	1064497	Bl Se^{32}	Hm Hw	1000	500	400	4	20	All	0.60
ESSFwv	08	1064498	Bl^{1} $Se^{1,32}$		1000	500	400	4	20	All	0.60
ESSFwv	09	1064499	Bl^{1} $Se^{1,32}$		1000	500	400	4	20	All	0.60
ICHmc1	01	1064500	Bl^{29} Hw^{32} Sx^{56} Ba^{50}	Pl Pa	1200	700	600	4	20	Pl	2.00
										Others	1.00
ICHmc1	02	1064501	Pl	Bl Hw^{32} Pa	1000	500	400	7	20	Pl	1.40
										Others	0.80
ICHmc1	03	1064502	Bl^{29} Ba^{50} Hw^{32} $Sx^{35,56}$	Pl Pa	1200	700	600	4	20	Pl	2.00
										Others	1.00
ICHmc1	04	1064503	Bl^{29} Ba^{50} $Sx^{35,56}$ Hw^{32}	Pl Pa	1200	700	600	4	20	Pl	2.00
										Others	1.00
ICHmc1	05	1064504	Ba^{50} $Sx^{1,35,56}$ $Bl^{1,29}$	Pa	1200	700	600	4	20	All	1.00
ICHmc1	06	1064505	Ba^{50} $Sx^{1,56}$ $Bl^{1,29}$	$Hw^{1,32}$ Pa	1000	500	400	4	20	All	0.80
SBSdk	01	1064506	Pl Sx	$Fd^{9,18}$ Pa	1200	700	600	7	20	Pl	2.00
										Fd	1.40
										Others	1.00
SBSdk Climate Change 2013	01	1064507	Pl Sx $Fd^{9,18,32}$ Lw^{32}	-	1200	700	600	7	20	Pl	2.00

Bio-geo-climatic											
Classification		Species			Stocking(i)			Regen	Assessment	Min. Height(ii)	
Zone/SZ	Series	Standards ID	Preferred (p)	Acceptable (a)	Target (well-spaced/ha)	MIN pa	MIN p	Delay (Max yrs)	Latest (yrs)	Species	Ht (m)
										Fd	1.40
										Others	1.00
SBSdk	02	1064508	Pl	Sx^{28} Pa	1000	500	400	7	20	Pl	1.40
										Others	0.80
SBSdk	03	1064509	Pl	Sx^{28} Sb^{28} Pa	1200	700	600	7	20	Pl	2.00
										Others	1.00
SBSdk Climate Change 2013	03	1064510	Pl	Sb^{28} Sx^{28} $Fd^{9,32}$ $Lw^{9,32}$	1200	700	600	7	20	Pl	2.00
										Others	1.00
SBSdk	04	1064511	Fd Pl Sx^{28}	Pa	1200	700	600	7	20	Pl	2.00
										Fd	1.40
										Others	1.00
SBSdk Climate Change 2013	04	1064512	$Fd^{9,18,32}$ Pl Sx^{28} Lw^{32}		1200	700	600	7	20	Pl	2.00
										Fd	1.40
										Others	1.00
SBSdk	05	1064513	Pl Sx^{28}	$Fd^{9,18}$ Pa	1200	700	600	7	20	Pl	2.00
										Fd	1.40
										Others	1.00
SBSdk Climate Change 2013	05	1064514	Pl Sx^{28} $Fd^{9,18,32}$ Lw^{32}		1200	700	600	7	20	Pl	2.00
										Fd	1.40
										Others	1.00
SBSdk	06	1064515	Pl Sx	$Fd^{9,18}$ Pa	1200	700	600	4	20	Pl	2.00
										Fd	1.40
										Others	1.00
SBSdk Climate Change 2013	06	1064516	Pl Sx $Fd^{9,18,32}$ Lw^{32}	-	1200	700	600	4	20	Pl	2.00

Bio-geo-climatic											
Classification		Species			Stocking(i)			Regen	Assessment	Min. Height(ii)	
Zone/SZ	Series	Standards ID	Preferred (p)	Acceptable (a)	Target (well-spaced/ha)	MIN pa	MIN p	Delay (Max yrs)	Latest (yrs)	Species	Ht (m)
				- -						Fd Others	1.40 1.00
SBSdk	07	1064517	Sx[1,32]	Pl[1]	1000	500	400	4	20	Pl Others	1.40 1.00
SBSdk Climate Change 2013	07a	1064518	Sx[1,32] Fd[9,18,32] Lw[32]	Pl[1]	1000	500	400	4	20	Pl Fd Others	1.40 1.40 1.00
SBSdk	08	1064519	Sx[1,32]		1200	700	600	4	20	All	1.00
SBSdk	09	1064520	Pl[1] Sb[1]	Sx[1]	400	200	200	4	20	Pl Others	1.40 0.80
SBSdk	10	1064521	Pl[1] Sb[1] Sx[1,32]		400	200	200	4	20	Pl Others	1.40 0.80
SBSmc2	01	1064522	Pl Sx Bl[29]	Pa	1200	700	600	7	20	Pl Others	1.60 0.80
SBSmc2	02	1064523	Pl	Bl Sx[32] Pa	1000	500	400	7	20	Pl Others	1.20 0.80
SBSmc2	03	1064524	Pl Sx[32]	Bl[29] Sb Pa	1200	700	600	7	20	Pl Others	1.60 0.80
SBSmc2	05	1064525	Pl Sx Bl[29]	Pa	1200	700	600	4	20	Pl Others	1.60 0.80
SBSmc2	06	1064526	Pl Sx Bl[29]	Pa	1200	700	600	4	20	Pl Others	1.60 0.80
SBSmc2	07	1064527	Pl Sb Sx[32]	Bl	1000	500	400	4	20	Pl	1.20

Bio-geo-climatic											
Classification		Species			Stocking(i)			Regen	Assessment	Min. Height(ii)	
Zone/SZ	Series	Standards ID	Preferred (p)	Acceptable (a)	Target (well-spaced/ha)	MIN pa	MIN p	Delay (Max yrs)	Latest (yrs)	Species	Ht (m)
										Others	0.80
SBSmc2	08	1064528	Pl Sx Bl[29]		1200	700	600	4	20	Pl	1.60
										Others	0.80
SBSmc2	09	1064529	Sx Bl[29]	Pl	1200	700	600	4	20	Pl	1.60
										Others	0.80
SBSmc2	10	1064530	Sx[1,32] Bl[1,29]	Pl[1]	1000	500	400	4	20	Pl	1.20
										Others	0.80
SBSmc2	12	1064531	Sb[1] Sx[1,32]	Pl[1] Bl[1]	400	200	200	4	20	Pl	1.20
										Others	0.80
Fire management											
SBSdk	01- WUI-HRV	1064543	Pl Sx	Fd [9, 18] At, Ep	1000	500	500	7	20	Pl	2.00
										Fd	1.40
										Others	1.00
SBSdk climate change 2013	01- WUI-HRV	1064544	Pl Sx Fd[9,18,32] Lw[32]	At, Ep	1000	500	500	7	20	Pl	2.00
										Fd	1.40
										Others	1.00
SBSdk	02-WUI-HRV	1064545	Pl	Sx [28] At, Ep	1000	500	400	7	20	Pl	1.40
										Others	0.80
SBSdk	03-WUI-HRV	1064546	Pl	Sx[28] Sb[28] At	1000	500	500	7	20	Pl	2.00
										Others	1.00
SBSdk climate change 2013	03-WUI-HRV	1064547	Pl	Sb[28] Sx[28] Fd[9,32] Lw[9,32]	1000	500	500	7	20	Pl	2.00
										Others	1.00
SBSdk	04-WUI-HRV	1064548	Fd Pl Sx[28]	At, Ep	1000	500	500	7	20	Pl	2.00
										Fd	1.40

Bio-geo-climatic												
Classification		**Species**			**Stocking(i)**			**Regen**	**Assessment**	**Min. Height(ii)**		
Zone/SZ	**Series**	**Standards ID**	**Preferred (p)**	**Acceptable (a)**	**Target (well-spaced/ha)**	**MIN pa**	**MIN p**	**Delay (Max yrs)**	**Latest (yrs)**	**Species**	**Ht (m)**	
										Others	1.00	
SBSdk climate change 2013	04-WUI-HRV	1064549	Fd[9,18,32] Pl Sx[28] Lw[32]	At, Ep	1000	500	500	7	20	Pl	2.00	
										Fd	1.40	
										Others	1.00	
SBSdk	05-WUI-HRV	1064550	Pl Sx[28]	Fd[9,18] At, Ep	1000	500	500	7	20	Pl	2.00	
										Fd	1.40	
										Others	1.00	
SBSdk climate change 2013	05-WUI-HRV	1064551	Pl Sx[28] Fd[9,18,32] Lw[32]	At, Ep	1000	500	500	7	20	Pl	2.00	
										Fd	1.40	
										Others	1.00	
SBSdk	06-WUI-HRV	1064552	Pl Sx	Fd[9,18] Act, At, Ep	1000	500	500	4	20	Pl	2.00	
										Others	1.00	
SBSdk climate change 2013	06-WUI-HRV	1064553	Pl Sx Fd[9,18,32] Lw[32]	Act, At, Ep	1000	500	500	4	20	Pl	2.00	
										Others	1.00	
SBSdk	07-WUI-HRV	1064554	Sx[1,32]	Pl[1] Act, At, Ep	1000	500	500	4	20	Pl	1.40	
										Others	1.00	
SBSdk climate change 2013	07-WUI-HRV	1064555	Sx[1,32] Fd[9,18,32] Lw[32]	Pl[1], Ac,t At, Ep	1000	500	500	4	20	Pl	1.40	
										Others	1.00	
SBSdk	08-WUI-HRV	1064556	Sx[1,32]	Act, At, Ep	1000	500	500	4	20	All	1.00	
SBSdk	09-WUI-HRV	1064557	Pl[1] Sb[1]	Sx[1]	400	200	200	4	20	Pl	1.40	
										Others	0.80	
SBSdk	10-WUI-HRV	1064558	Pl[1] Sb[1] Sx[1,32]		400	200	200	4	20	Pl	1.40	
										Others	0.80	
SBSmc2	01-WUI-HRV	1064532	Pl Sx Bl[29]	At	1000	500	500	7	20	Pl	1.60	

Bio-geo-climatic											
Classification		Species			Stocking(i)			Regen	Assessment	Min. Height(ii)	
Zone/SZ	Series	Standards ID	Preferred (p)	Acceptable (a)	Target (well-spaced/ha)	MIN pa	MIN p	Delay (Max yrs)	Latest (yrs)	Species	Ht (m)
										Others	0.80
SBSmc2	02-WUI-HRV	1064533	Pl	Bl Sx[32] At	1000	500	400	7	20	Pl Others	1.20 0.60
SBSmc2	03-WUI-HRV	1064534	Pl Sx[32]	Bl[29] Sb At	1000	500	500	7	20	Pl Others	1.60 0.80
SBSmc2	05-WUI-HRV	1064535	Pl Sx Bl[29]	Act, At	1000	500	500	4	20	Pl Others	1.60 0.80
SBSmc2	06-WUI-HRV	1064536	Pl Sx Bl [29]	Act, At	1000	500	500	4	20	Pl Others	1.60 0.80
SBSmc2	07-WUI-HRV	1064537	Pl Sb Sx[32]	Bl At	1000	500	400	4	20	Pl Others	1.20 0.60
SBSmc2	08-WUI-HRV	1064538	Pl Sx Bl[29]	Act, At	1000	500	500	4	20	Pl Others	1.60 0.80
SBSmc2	09-WUI-HRV	1064539	Sx Bl[29]	Pl Act, At	1000	500	500	4	20	Pl Others	1.60 0.80
SBSmc2	10-WUI-HRV	1064541	Sx[1,32] Bl[1,29]	Pl Act, At	1000	500	400	4	20	Pl Others	1.20 0.60
SBSmc2	12-WUI-HRV	1064542	Sb[1] Sx[1,32]	Pl[1] Bl[1]	400	200	200	4	20	Pl Others	1.20 0.60

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Conifer Tree Species

"Ba" means amabilis fir;
"Bl" means subalpine fir;
"Fd" means douglas fir;
'Hm" means mountain hemlock;
"Hw" means western hemlock;
"Lw" means western larch;
"Pa" means Whitebark pine
"Pl" means lodgepole pine;
"Sb" means black spruce;
"Se" means Engelmann spruce;
"Ss" means Sitka Spruce;
"Sw" means white spruce;
"Sx" means hybrid spruce or interior spruce;

Broadleaf Tree Species

"Act" means black cottonwood;
"At" means trembling aspen
"Ep" means common paper birch

Footnotes:

1 suitable on elevated microsites
9 suitable on warm aspects
18 suitable in the eastern portion of biogeoclimatic unit
28 limited by moisture deficit
29 risk of heavy browsing by moose
32 limited by growing-season frosts
34 risk of snow damage
35 use resistant stock to mitigate risk of spruce weevil damage =see Ss Weevil decision tool
50 restricted to sites where the species occurs as a major species in a pre-harvest, natural stand

Appendix B Partial Cutting Stocking Standards

The following standards apply to assessing regeneration and free growing success for standards units, where partial cutting silviculture systems have been implemented

1.0 When do partial cutting stocking standards apply?

1.1 Standard Units with less than or equal to 5 m2/ha of retained basal area:

a.) Even-aged stocking standards, as per Appendix A, apply to standards where the retained basal area of overstorey (Layer 1) trees is less than or equal 5 m2/ha.

1.2 Standard Units with greater than 20 m2/ha of retained basal area:

a.) Where the basal area of acceptable retained overstorey (Layer 1) is greater than 20m2/ha, the standards unit will be considered adequately stocked.
b.) The free-growing assessment of this standards unit may not be made until two years after the harvest completion date.

1.3 Standard Units with greater than 5m2/ha and less than 20m2/ha of retained basal area

a.) Where the basal area of acceptable retained overstorey (Layer 1) trees is greater than 5 m2/ha and less than 20 m2/ha use the Deviation from Potential Productivity Standards (DFP) outlined below

2.0 Definitions

2.1 **Overstorey** (layer 1) is all live trees with a diameter at breast height (DBH) greater than or equal to 12.5 cm.

2.2 **Understorey** is all live trees with a diameter at breast height (dbh) less than 12.5 cm. The understorey includes poles (layer 2), saplings (layer 3) and seedlings (layer 4).

2.3 The deviation from potential productivity value is obtained from the attached **DFP (Table B).**

3.0 Tree Acceptability Criteria:

3.1 The following rules apply to measuring overstorey trees:

a.) All live acceptable overstorey trees count in the overstorey basal area prism sweep
b.) No minimum inter-tree distance is applied to overstorey trees

3.2 The following rules apply to tallying understorey trees:

a.) The even-aged minimum inter-tree distance (MITD) standard, for the standards unit, form Appendix A, will apply.

b.) Minimum Height:

a. The minimum height at regeneration date must be greater than 10 cm.
b. The minimum height at free growing must be greater than or equal 65% of the minimum free growing height in the even-aged stocking standard for the species for the standard unit.

c.) Understorey Minimum Stocking Standard (MSSp) requirement:

Preferred species ae those listed as preferred in the even-aged stocking standards, Appendix A, for the species for the standard unit. Preferred species must be greater than or equal to 50% of the well-speced, or free-growing, stems tallied in the stratum to meet minimum stocking standards.

d.) M Value:

The maximum of number of healthy, well-spaced that may be tallied in a plot is always 8.

4.0 Sample Size Rules and Declaration of Stocking:

a.) Stratum size <5 hectares: Declaration of stocking or free growing requires establishing a minimum of 5 plots that have a mean DFP equal to or greater than 0.20.
b.) Stratum size 5-20 hectares: Declaration of stocking or free growing requires establishing a minimum 1 plot per ha (or achieving a standard error mean DFP <=0.05) and a mean DFP less than or equal to 0.20.
c.) Stratum size greater than 20 hectares: Declaration of stocking or free growing requires establishing a minimum 1 plot per 2 ha (or achieving a standard error of mean DFP <= 0.05) and a mean DFP less than or equal to 0.20.

Table B: Deviation from Potential productivity (DFP) by understorey tree density and Overstorey basal area.

OS Basal Area	Well-spaced trees in plot								
m2/ha	0	1	2	3	4	5	6	7	8
0	1.00	0.76	0.52	0.34	0.22	0.13	0.07	0.03	0.00
1	0.98	0.74	0.51	0.34	0.21	0.13	0.07	0.03	0.00
2	0.96	0.73	0.50	0.33	0.21	0.13	0.07	0.03	0.00
3	0.93	0.71	0.49	0.32	0.2	0.12	0.07	0.03	0.00
4	0.90	0.68	0.47	0.31	0.2	0.12	0.06	0.03	0.00
5	0.86	0.65	0.45	0.30	0.19	0.11	0.06	0.02	0.00
6	0.82	0.62	0.43	0.28	0.18	0.11	0.06	0.02	0.00
7	0.77	0.58	0.40	0.27	0.17	0.10	0.05	0.02	0.00
8	0.72	0.55	0.38	0.25	0.16	0.09	0.05	0.02	0.00
9	0.67	0.51	0.35	0.23	0.15	0.09	0.05	0.02	0.00
10	0.62	0.47	0.32	0.21	0.14	0.08	0.04	0.02	0.00
11	0.57	0.43	0.30	0.20	0.12	0.07	0.04	0.02	0.00
12	0.52	0.39	0.27	0.18	0.11	0.07	0.04	0.01	0.00
13	0.47	0.35	0.24	0.16	0.10	0.06	0.03	0.01	0.00
14	0.42	0.32	0.22	0.15	0.09	0.05	0.03	0.01	0.00
15	0.38	0.28	0.20	0.13	0.08	0.05	0.03	0.01	0.00
16	0.33	0.25	0.17	0.11	0.07	0.04	0.02	0.01	0.00
17	0.29	0.22	0.15	0.10	0.06	0.04	0.02	0.01	0.00
18	0.26	0.19	0.13	0.09	0.06	0.03	0.02	0.01	0.00
19	0.22	0.17	0.12	0.08	0.05	0.03	0.02	0.01	0.00
20	0.19	0.14	0.10	0.07	0.04	0.02	0.01	0.01	0.00
21	0.16	0.12	0.08	0.06	0.04	0.02	0.01	0.00	0.00
22	0.13	0.10	0.07	0.05	0.03	0.02	0.01	0.00	0.00
23	0.11	0.08	0.06	0.04	0.03	0.01	0.01	0.00	0.00
24	0.09	0.07	0.05	0.03	0.02	0.01	0.01	0.00	0.00
25	0.07	0.05	0.04	0.02	0.02	0.01	0.00	0.00	0.00
26	0.05	0.04	0.03	0.02	0.02	0.01	0.00	0.00	0.00
27	0.04	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00
28	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00
29	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Bio-geo-climatic Zone			Species														Regen Delay	Assessment	Min. Height(ii)	
Classification					Layer 1			Layer 2			Layer 3			Layer 4				Latest	Species	Ht
Zone/SZ	Site Series	Standards ID	Preferred (p)	Acceptable (a)	Target	Min (p & a)	Min (p)	Target	Min (p & a)	Min (p)	Target	Min (p & a)	Min (p)	Target	Min (p & a)	Min (p)	(Max yrs)	(yrs)		(m)
ESSFmc	01	1064559	Bl Sx	Pl[34], Pa	600	300	250	800	400	300	1000	500	400	1200	700	600	7	20	Pl Others	1.60 0.80
ESSFmc	02	1064560	Pl	Bl Sx Pa	400	200	200	600	300	250	800	400	300	1000	500	400	7	20	Pl Others	1.20 0.80
ESSFmc	03	1064561	Pl	Bl Sx Pa	400	200	200	600	300	250	800	400	300	1000	500	400	7	20	Pl Others	1.20 0.80
ESSFmc	04	1064562	Pl Bl Sx		600	300	250	800	400	300	1000	500	400	1200	700	600	7	20	Pl Others	1.60 0.80
ESSFmc	05	1064563	Bl Sx	Pl[34] Pa	600	300	250	800	400	300	1000	500	400	1200	700	600	4	20	Pl Others	1.60 0.80
ESSFmc	06	1064564	Bl Sx	Pl34 Pa	600	300	250	800	400	300	1000	500	400	1200	700	600	4	20	Pl Others	1.60 0.80
ESSFmc	07	1064565	Bl Sx[32]		600	300	250	800	400	300	1000	500	400	1200	700	600	4	20	All	0.80
ESSFmc	08	1064566	Bl Sx[32]		400	200	200	600	300	250	800	400	300	1000	500	400	4	20	All	0.60
ESSFmc	09	1064567	Bl[1] Sx[1,32]		400	200	200	600	300	250	800	400	300	1000	500	400	4	20	All	0.60
ESSFmc	10	1064568	Bl[1] Sx[1,32]		400	200	200	600	300	250	800	400	300	1000	500	400	4	20	All	0.60
ESSFwv	01	1064569	Bl Se	Hm Hw Pl[34] Pa	600	300	250	800	400	300	1000	500	400	1200	700	600	7	20	Pl Others	1.60 0.80
ESSFwv	02	1064570	Pl	Bl Hm Se Pa	400	200	200	600	300	250	800	400	300	1000	500	400	7	20	Pl Others	1.20 0.80
ESSFwv	03	1064571	Pl	Bl Hm Se Hw Pa	600	300	250	800	400	300	1000	500	400	1200	700	600	7	20	Pl Others	1.60 0.80
ESSFwv	04	1064572	Pl Bl	Se Hm Pa	600	300	250	800	400	300	1000	500	400	1200	700	600	7	20	Pl Others	1.60 0.80
ESSFwv	05	1064573	Bl Se	Hm Hw Pl34 Pa	600	300	250	800	400	300	1000	500	400	1200	700	600	4	20	Pl Others	1.60 0.80
ESSFwv	06	1064575	Bl Se[32]	Hm Hw Pa	600	300	250	800	400	300	1000	500	400	1200	700	600	4	20	All	0.80
ESSFwv	07	1064576	Bl Se[32]	Hm Hw	400	200	200	600	300	250	800	400	300	1000	500	400	4	20	All	0.60
ESSFwv	08	1064577	Bl[1] Se[1,32]		400	200	200	600	300	250	800	400	300	1000	500	400	4	20	All	0.60
ESSFwv	09	1064578	Bl[1] Se[1,32]		400	200	200	600	300	250	800	400	300	1000	500	400	4	20	All	0.60
ICHmc1	01	1064579	Bl[29] Hw[32] Sx[56] Ba[50]	Pl Pa	600	300	250	800	400	300	1000	500	400	1200	700	600	4	20	Pl Others	2.00 1.00
ICHmc1	02	1064580	Pl	Bl Hw[32] Pa	400	200	200	600	300	250	800	400	300	1000	500	400	7	20	Pl	1.40

Bio-geo-climatic Zone			Species														Regen Delay	Assessment	Min. Height(ii)	
																			Others	0.80
ICHmc1	03	1064581	Bl^{29} Ba^{50} Hw^{32} Sx^{35,56}	Pl Pa	600	300	250	800	400	300	1000	500	400	1200	700	600	4	20	Pl Others	2.00 1.00
ICHmc1	04	1064582	Bl^{29} Ba^{50} Sx^{35,56} Hw^{32}	Pl Pa	600	300	250	800	400	300	1000	500	400	1200	700	600	4	20	Pl Others	2.00 1.00
ICHmc1	05	1064583	Ba^{50} Sx^{1,35,56} Bl^{1,29}	Pa	600	300	250	800	400	300	1000	500	400	1200	700	600	4	20	All	1.00
ICHmc1	06	1064585	Ba^{50} Sx^{1,56} Bl^{1,29}	Hw^{1,32} Pa	400	200	200	600	300	250	800	400	300	1000	500	400	4	20	All	0.80
SBSdk	01	1064586	Pl Sx	Fd^{9,18} Pa	600	300	250	800	400	300	1000	500	400	1200	700	600	7	20	Pl Fd Others	2.00 1.40 1.00
SBSdk climate change 2013	01	1064587	Pl Sx Fd^{9,18,32} Lw^{32}		600	300	250	800	400	300	1000	500	400	1200	700	600	7	20	Pl Fd Others	2.00 1.40 1.00
SBSdk	02	1064588	Pl	Sx^{28} Pa	400	200	200	600	300	250	800	400	300	1000	500	400	7	20	Pl Others	1.40 0.80
SBSdk	03	1065589	Pl	Sx^{28} Sb^{28} Pa	600	300	250	800	400	300	1000	500	400	1200	700	600	7	20	Pl Others	2.00 1.00
SBSdk climate change 2013	03	1064590	Pl	Sx^{28} Sb^{28} Fd^{9,32} Lw^{9,32}	600	300	250	800	400	300	1000	500	400	1200	700	600	7	20	Pl Others	2.00 1.00
SBSdk	04	1064591	Fd Pl Sx^{28}	Pa	600	300	250	800	400	300	1000	500	400	1200	700	600	7	20	Pl Fd Others	2.00 1.40 1.00
SBSdk climate change 2013	04	1064592	Fd^{9,18,32} Pl Sx^{28} Lw^{32}		600	300	250	800	400	300	1000	500	400	1200	700	600	7	20	Pl Fd Others	2.00 1.40 1.00
SBSdk	05	1064593	Pl Sx^{28}	Fd^{9,18} Pa	600	300	250	800	400	300	1000	500	400	1200	700	600	7	20	Pl Fd Others	2.00 1.40 1.00
SBSdk climate change 2013	05	1064594	Pl Sx^{28} Fd^{9,18,32} Lw^{32}		600	300	250	800	400	300	1000	500	400	1200	700	600	7	20	Pl Fd Others	2.00 1.40 1.00
SBSdk	06	1064595	Pl Sx	Fd9,18 Pa	600	300	250	800	400	300	1000	500	400	1200	700	600	4	20	Pl Fd Others	2.00 1.40 1.00
SBSdk climate change 2013	06	1064596	Pl Sx Fd^{9,18,32} Lw^{32}		600	300	250	800	400	300	1000	500	400	1200	700	600	4	20	Pl Fd Others	2.00 1.40 1.00

Bio-geo-climatic Zone			Species														Regen Delay	Assessment	Min. Height(ii)	
SBSdk	07	1064597	Sx[1,32]	Pl[1]	400	200	200	600	300	250	800	400	300	1000	500	400	4	20	Pl Others	1.40 0.80
SBSdk climate change 2013	07	1064598	Sx[1,32] Fd[9,18,32] Lw[32]	Pl[1]	400	200	200	600	300	250	800	400	300	1000	500	400	4	20	Pl Fd Others	1.40 1.40 0.80
SBSdk	08	1064599	Sx[1,32]		600	300	250	800	400	300	1000	500	400	1200	700	600	4	20	All	1.00
SBSdk	09	1064600	Pl[1] Sb[1]	Sx[1]	200	100	100	300	125	125	300	150	150	400	200	200	4	20	Pl Others	1.40 0.80
SBSdk	10	1064601	Pl[1] Sb[1] Sx[1,32]		200	100	100	300	125	125	300	150	150	400	200	200	4	20	Pl Others	1.40 0.80
SBSmc2	01	1064602	Pl Sx Bl[29]	Pa	600	300	250	800	400	300	1000	500	400	1200	700	600	7	20	Pl Others	1.60 0.80
SBSmc2	02	1064603	Pl	Bl Sx[32] Pa	400	200	200	600	300	250	800	400	300	1000	500	400	7	20	Pl Others	1.20 0.60
SBSmc2	03	1064604	Pl Sx[32]	Bl[29] Sb Pa	600	300	250	800	400	300	1000	500	400	1200	700	600	7	20	Pl Others	1.60 0.80
SBSmc2	05	1064605	Pl Sx Bl[29]	Pa	600	300	250	800	400	300	1000	500	400	1200	700	600	4	20	Pl Others	1.60 0.80
SBSmc2	06	1064606	Pl Sx Bl[29]	Pa	600	300	250	800	400	300	1000	500	400	1200	700	600	4	20	Pl Others	1.60 0.80
SBSmc2	07	1064608	Pl Sb Sx[32]	Bl	400	200	200	600	300	250	800	400	300	1000	500	400	4	20	Pl Others	1.20 0.60
SBSmc2	08	1064609	Pl Sx Bl[29]		600	300	250	800	400	300	1000	500	400	1200	700	600	4	20	Pl Others	1.60 0.80
SBSmc2	09	1064610	Sx Bl[29]	Pl	600	300	250	800	400	300	1000	500	400	1200	700	600	4	20	Pl Others	1.60 0.80
SBSmc2	10	1064611	Sx[1,32] Bl[1,29]	Pl[1]	400	200	200	600	300	250	800	400	300	1000	500	400	4	20	Pl Others	1.20 0.60
SBSmc2	12	1064612	Sb[1] Sx[1,32]	Pl[1] Bl[1]	200	100	100	300	125	125	300	150	150	400	200	200	4	20	Pl Others	1.20 0.60
Fire Management																				
SBSdk-WUI-HRV	01	1064623	Pl Sx	Fd[9,18] At Ep	400	200	200	600	300	250	800	400	300	1000	500	400	7	20	Pl Fd Others	2.00 1.40 1.00
SBSdk-WUI-HRV Climate Change 2013	01	1064624	Pl Sx Fd[9,18,32] Lw[32]	At Ep	400	200	200	600	300	250	800	400	300	1000	500	500	7	20	Pl Fd Others	2.00 1.40 1.00

Bio-geo-climatic Zone			Species														Regen Delay	Assessment	Min. Height(ii)	
SBSdk-WUI-HRV	02	1064625	Pl	Sx^{28} At Ep	400	200	200	600	300	250	800	400	300	1000	500	400	7	20	Pl Others	1.40 0.80
SBSdk-WUI-HRV	03	1064626	Pl	Sx^{28} Sb^{28} At	400	200	200	600	300	250	800	400	300	1000	500	400	7	20	Pl Others	2.00 1.00
SBSdk-WUI-HRV **Climate Change 2013**	03	1064627	Pl	Sx^{28} Sb^{28} $Fd^{9,32}$ $Lw^{9,32}$	400	200	200	600	300	250	800	400	300	1000	500	400	7	20	Pl Others	2.00 1.00
SBSdk-WUI-HRV	04	1064628	Fd Pl Sx^{28}	At Ep	400	200	200	600	300	250	800	400	300	1000	500	400	7	20	Pl Fd Others	2.00 1.40 1.00
SBSdk-WUI-HRV **Climate Change 2013**	04	1064629	$Fd^{9,18,32}$ Pl Sx^{28} Lw^{32}	At Ep	400	200	200	600	300	250	800	400	300	1000	500	500	7	20	Pl Fd Others	2.00 1.40 1.00
SBSdk-WUI-HRV	05	1064630	Pl Sx^{28}	$Fd^{9,18}$ At Ep	400	200	200	600	300	250	800	400	300	1000	500	400	7	20	Pl Fd Others	2.00 1.40 1.00
SBSdk- WUI-HRV **Climate Change 2013**	05	1064631	Pl Sx^{28} $Fd^{9,18,32}$ Lw^{32}	At Ep	400	200	200	600	300	250	800	400	300	1000	500	400	7	20	Pl Fd Others	2.00 1.40 1.00
SBSdk-WUI-HRV	06	1064632	Pl Sx	$Fd^{9,18}$ Act At Ep	400	200	200	600	300	250	800	400	300	1000	500	500	4	20	Pl Fd Others	2.00 1.40 1.00
SBSdk-WUI-HRV **Climate Change 2013**	06	1064633	Pl Sx $Fd^{9,18,32}$ Lw^{32}	Act At Ep	400	200	200	600	300	250	800	400	300	1000	500	500	4	20	Pl Fd Others	2.00 1.40 1.00
SBSdk-WUI-HRV	07	1064634	$Sx^{1,32}$	Pl^{1}	400	200	200	600	300	250	800	400	300	1000	500	400	4	20	Pl Others	1.40 0.80
SBSdk-WUI-HRV **Climate Change 2013**	07	1064635	$Sx^{1,32}$ $Fd^{9,18,32}$ Lw^{32}	Pl^{1} Act At Ep	400	200	200	600	300	250	800	400	300	1000	500	400	4	20	Pl Fd Others	1.40 1.40 0.80
SBSdk-WUI-HRV	08	1064636	$Sx^{1,32}$	Act At Ep	400	200	200	600	300	250	800	400	300	1000	500	400	4	20	All	1.00
SBSdk-WUI-HRV	09	1064637	Pl^{1} Sb^{1}	Sx^{1}	200	100	100	300	125	125	300	150	150	400	200	200	4	20	Pl Others	1.40 0.80
SBSdk-WUI-HRV	10	1064638	Pl^{1} Sb^{1} $Sx^{1,32}$		200	100	100	300	125	125	300	150	150	400	200	200	4	20	Pl Others	1.40 0.80
SBSmc2-WUI-HRV	01	1064613	Pl Sx Bl^{29}	At	400	200	200	600	300	250	800	400	300	1000	500	500	7	20	Pl	1.60

Bio-geo-climatic Zone			Species														Regen Delay	Assessment	Min. Height(ii)	
																			Others	0.80
SBSmc2-WUI-HRV	02	1064614	Pl	Bl Sx[32] At	400	200	200	600	300	250	800	400	300	1000	500	400	7	20	Pl Others	1.20 0.60
SBSmc2-WUI-HRV	03	1064615	Pl Sx[32]	Bl[29] Sb At	400	200	200	600	300	250	800	400	300	1000	500	500	7	20	Pl Others	1.60 0.80
SBSmc2-WUI-HRV	05	1064616	Pl Sx Bl[29]	Act At	400	200	200	600	300	250	800	400	300	1000	500	500	4	20	Pl Others	1.60 0.80
SBSmc2-WUI-HRV	06	1064617	Pl Sx Bl[29]	At Act	400	200	200	600	300	250	800	400	300	1000	500	500	4	20	Pl Others	1.60 0.80
SBSmc2-WUI-HRV	07	1064618	Pl Sb Sx[32]	Bl At	400	200	200	600	300	250	800	400	300	1000	500	400	4	20	Pl Others	1.20 0.60
SBSmc2-WUI-HRV	08	1064619	Pl Sx Bl[29]	Act At	400	200	200	600	300	250	800	400	300	1000	500	500	4	20	Pl Others	1.60 0.80
SBSmc2-WUI-HRV	09	1064620	Sx Bl[29]	Pl Act At	400	200	200	600	300	250	800	400	300	1000	500	500	4	20	Pl Others	1.60 0.80
SBSmc2-WUI-HRV	10	1064621	Sx[1,32] Bl[1,29]	Pl[1] Act At	400	200	200	600	300	250	800	400	300	1000	500	400	4	20	Pl Others	1.20 0.60
SBSmc2-WUI-HRV	12	1064622	Sb[1] Sx[1,32]	Pl[1] Bl[1]	200	100	100	300	125	125	300	150	150	400	200	200	4	20	Pl Others	1.20 0.60

Appendix C: Maps

Wetzin'kwa Community Forest Corporation

Forest Stewardship Plan 2019-2024
Forest Stewardship Plan Extended 2024-2029

Supplemental Information

Dated May 5, 2020
Extended MONTH DAY, 2024

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1.0 INTRODUCTION AND INTERPRETATION

In addition to the current planning framework, including the Bulkley LRMP and its attendant management zones, guidance on the management of the Wetzin'kwa Community Forest licence, is also provided in the Wetzin'kwa Community Forest K2P – Management Plan. The approved Wetzin'kwa Community Forest Management Plan sets important management direction through its 'Management Goals' and 'Guiding Principles'. This direction is non-legal from the standpoint of the Forest and Range Practices Act and therefore is not addressed specifically in the Wetzin'kwa Forest Stewardship Plan, but is essential to the management of the tenure.

Wetzin'kwa Community Forest Corporation (WCFC) is committed to:

- involving the community
- working with the Wet'suwet'en people,
- land stewardship
- enhancing outdoor recreation and education
- a healthy community forest economy.

Table 1 shows the correlation between the goals and guiding principles of WCFC Management Plan and the WCFC FSP's results and strategies. The WCFC Management Plan is included under Appendix A.

In addition to the forest management direction of WCFC, this supplemental information makes significant reference to the approved Pacific Inland Resources Forest Stewardship Plan and its' supporting document.

Table 1: Correlation of WCFC Management Plan and the WCFC FSP

Goals of WCFC Management Plan	Section of FSP to refer to Management of the Goal of the WCFC Management Plan	Comments
Planning and management that will reflect the local communities' values	Sec 5.1, 5.2. 5.4, 5.5, 5.6 & 5.9	Public participation in the Bulkley LRMP process initiated by the CRB provided direction on biodiversity, wildlife, enhances timber development, outdoor recreation and resource management zones
	Sec. 2.4	Additional input from the community of new information was considered for incorporation into the FSP document
Encouraging compatible multiple uses on the landbase by various users	Sec 5.2	Wildife viewing and hunting
	Sec 5.3	Management for water quality (community watershed) and fish habitat
	Sec 5.5	Management for access to recreation sites & trails
	Sec 5.6	VQO Management
	Sec 5.7	Management for cultural resources
	Sec 5.9	Management of multiple resources in the RMZ
	Sec 6.2	Range Management
	Public Review & Comment Period	Additional input of new information will be considered
Maintaining function integrity of ecosystems on the landbase for long term sustainability and diversity of plant and animal species	Sec 5.1	Management of Core Ecosystems, landscape corridors, seral stage targets and patch size distributions, trees species diversity, stand structure
	Sec 5.2	Management of wildlife habitat
	Sec 5.3	Management of fish wildlife and biodiversity
	Sec 5.8	Management of soil productivity

Goals of WCFC Management Plan	Section of FSP to refer to Management of the Goal of the WCFC Management Plan	Comments
	Sec 5.9	Management of multiple resources in a sustainable manner
	Sec 6.1	Prevention of spread of Invasive Plants
	Sec 6.2	Maintenance of natural range barriers
	Sec 7.0	Re-forestation of ecological suitable species
Guiding Principles of the WCFC Management Plan	**Section of FSP to refer to Management of the Guiding Principles of the WCFC Management Plan**	**Comments**
To sustain a financially viable forest resources business for the long-term benefit of residents in the Bulkley Valley	Sec 5.0 thru to sec 7.0	Sustainable management of all the resources will provide the foundation of a financially viable forest resource business over the long term Stocking standards and related commitments ensure forests long into the future
To maintain and sustain functional integrity of ecosystems	Sec 5.1	Management of Core Ecosystems, landscape corridors, seral stage targets and patch size distributions, trees species diversity, stand structure
	Sec 5.2	Management of wildlife habitat
	Sec 5.3	Management of fish wildlife and biodiversity
	Sec 5.8	Management of soil productivity
	Sec 5.9	Management of multiple resources in a sustainable manner
	Sec 6.1	Prevention of spread of Invasive Plants
	Sec 6.2	Maintenance of natural range barriers
	Sec 7.0	Re-forestation of ecological suitable species
To protect water quality in watersheds	Sec 5.3	Management of fish, wildlife and biodiversity
	Sec 5.8	Management of soil compaction and erosion
	Sec 5.9	Management of multiple resources in a sustainable manner
To maintain a healthy balance of all plants and animals	Sec 5.1	Management of Core Ecosystems, landscape corridors, seral stage targets and patch size distributions, trees species diversity, stand structure
	Sec 5.2	Management of wildlife habitat
	Sec 5.3	Management of fish, wildlife and biodiversity
	Sec 5.8	Management of soil productivity
	Sec 5.9	Management of multiple resources in a sustainable manner
	Sec 6.1	Prevention of spread of Invasive Plant
	Sec 6.2	Maintenance of natural range barriers
	Sec 7.0	Re-forestation of ecological suitable species
To recognize the Wet'suwet'en people and their culture	Sec 2.4 and 5.7	Management of cultural resources
To establish long lasting, respectful relationship between the partners	Sec 5.0 thru to sec 7.0	Sustainable management of all forest resources should create a long lasting respectful relationship between the partners
To expand local small business opportunities and employment when and where feasible		Provided through the sustainable management of the Community Forest Agreement
To provide a safe and environmentally friendly work environment		WorksafeBC provides direction for workplace safety
To enhance outdoor educational and recreational opportunities	Sec 5.5	Management of multiple resources in a sustainable manner
	Sec 5.9	Management of multiples in a sustainable manner
To increase community involvement in resource management	Public Review & Comment Period and sec 2.4	Additional input from the community of new information will be considered for incorporation into FSP document
To reflect community values in decision making	Public Review & Comment Period and sec 2.4	Additional input from the community of new information will be considered for incorporation into FSP document

1.1 Licensee Information

Wetzin'kwa Community Forest Corporation (WCFC) was established in 2007 and was granted a full Community Forest Agreement (K2P) in 2010. The K2P licence had an original AAC of 30,000 m^3, but in 2010 received a temporary (5 year) AAC uplift of 95,000 m^3 to address the salvage of mountain pine beetle infested pine. Upon the completion of this 5 year period a new management plan was completed in 2015. A new sustainable AAC of 30,304 m^3 was established in 2016.

1.2 Objective History

The Skeena-Stikine District (formerly the Bulkley District) has had a long history of land and resource management planning. The Community Resources Board was formed in 1991 with the intent of having individuals with a broad range of interests develop a land and resource management plan (LRMP) for the Bulkley TSA. The Bulkley LRMP was compiled over a number of years and it provides broad guidance to local resource planning. Further and more specific guidance is provided through the landscape unit plans which were developed by resource management professionals from the Ministry of Forests, Ministry of Environment, and Forest Licensees.

Under a Forest Stewardship Plan licensees are required to address objectives set by government. A brief overview of the objective history for the Bulkley TSA is:

- In March of 1998 the Bulkley Land and Resource Management Plan was completed. Approval and direction to implement this plan was given by Cabinet, however the content or objectives within the plan were not legislated,

- On November 4, 1998 Biodiversity objectives contained within landscape unit plans (Babine, Chapman, Copper, Deep Creek, Blunt, Harold Price, Nilkitkwa, Reiseter, Telkwa, Torkelson and Trout Creek) were approved by the District Manager of the Ministry of Forests and the Designated Environment Official,

- On December 19, 2000 an "Order Establishing Resource Management Zones and Resource Management Zone Objectives within the area covered by the Bulkley Land and Resource Management Plan, March 1998" was approved. This order took the key zonations and management objectives from the LRMP and made them legal.

- In September of 2005 the Bulkley Valley Sustainable Resource Management Plan was completed. This plan was approved by the Ministry of Agriculture and Lands as a policy objective. This plan equates to the previously compiled landscape unit plans.

Upon review of the objectives to be considered within the context of the Forest Stewardship Plan, other licensees found that duplication and lack of clarity existed. An initiative was undertaken by the government (Integrated Land Management Bureau) to clarify and restate the pertinent objectives in a clear and concise manner. As a result, a new order entitled "Bulkley LRMP Objectives Set by Government – September 2006" establishing objectives for the Bulkley TSA was developed and approved on November 6, 2006 under section 93.4 (1) of the *Land Act* This set of objectives replaces Appendix 1 of the "Order Establishing Resource Management Zones and Resource Management Zone Objectives within the area covered by the Bulkley Land and Resource Management Plan, March 1998" approved December 19, 2000.

Appendix 2 and 3 of the order approved on December 19, 2000 remain in effect as higher level plan objectives for the Bulkley TSA.

WCFC has incorporated the objectives out of this order into its FSP, as this order provides the latest and most refined compilation of legal direction.

1.3 Planning Intent

In compiling this FSP, WCFC has considered all of the pertinent and applicable Objectives Set by Government. The historic resource management direction in the Bulkley Timber Supply Area (TSA) was developed under the Forest Practices Code (FPC). This historic management direction developed under the FPC is not readily transferable and manageable under the Forest and Range Practices Act (FRPA) regime.

Where previous management direction was guided locally and contained flexibility, results and strategies associated with objectives compiled within the Forest Stewardship Plan become legally binding. For this reason WCFC's FSP has incorporated results and strategies that address legal objectives without creating unnecessary legal burdens. That being the case, WCFC recognizes that additional management direction exists outside of the legal context of the FSP.

2.0 APPLICATION OF THIS FSP

2.1 Licence

Basic information on WCFC's community forest licence K2P is contained in section 1.0 of this background information.

2.2 Application of this FSP to Cutting Permits, Cutblocks and Road Permits

Generally, only the activities carried out under this FSP will be subject to the results or strategies contained within this FSP. WCFC has several active cutting permits, but since these active cutting permits were all established after FRPA was in effect, all future timber harvesting will be under the FRPA and the associated regulations.

3.0 TERM OF THIS FSP

This FSP will have a term of five years following FSP approval or as specified by the District Manager. As the FSP contains objectives and results and strategies derived mainly from processes involving the public and lacks block specific information, WCFC's expectation is that the term will likely be extended pursuant to the Act and the regulations.

The FSP will be extended in November 2024. In 2023 a forest landscape process was started for the Bulkley and Morice Timber Supply Areas. This creates a period of significant uncertainty, that will require creating a forest operations plan to meet legal requirements for forest planning. An FSP extension at this time is significantly less time consuming for WCFC, First Nations, provincial government and stakeholders with interests in the community forest.

4.0 IDENTIFYING FOREST DEVELOPMENT UNITS

4.1 Boundaries of FDU's

The boundaries of the FDU are the same as the boundaries of the Wetzin'kwa Community Forest Corporation's Licence Agreement Area (K2P).

4.2 Areas Considered Approved

Cutting Permits and Road Permits that are currently held by the FSP holder are listed in this section.

5.0 RESULTS AND STRATEGIES

WCFC will manage under the direction of the Higher Level Plan Objectives. Therefore the results and strategies contained in WCFC's FSP were crafted in order to maintain a minimum standard that will continue to meet the intent of the Higher Level Plan Objectives as well as the intent of the Landscape Unit Plans in the Bulkley TSA.

Our intent in the measuring of landscape unit level results and strategies such as seral stage, patch size, and landscape riparian corridors is to measure them across the area of WCFC's FDU that overlaps a particular landscape unit. In the Telkwa, Bulkley Valley, Trout Creek, and Copper Landscape Units licensees other than WCFC have operating areas. In landscape units where more than one licensee has operating areas it is our assumption that it is each licensee's responsibility to achieve the results and strategies they have proposed over their operating area in each Landscape Unit. The community forest agreement area has exclusive rights to harvest timber within an area-based tenure. Other licensee cannot harvest timber within our area and Wetzin'kwa cannot harvest outside of their area.

5.1 Objectives set by Government For Biodiversity

The following sections include analyses that were completed for the initial version of the Forest Stewardship Plan Supplemental Information. Since then Wetzin'kwa has subscribed to analyses completed by Forsite Consultants Ltd. These analyses provide updated landscape unit-level information for each of the subsections below.

5.1.1 Ecosystem Representation: Core Ecosystems

Core Ecosystems have been established across the Bulkley TSA. The core ecosystems were established to cumulatively maintain the following values:

- represent a cross section of naturally occurring ecosystems
- provide some areas with interior forest conditions and
- provide some areas with examples of rare and endangered plant ecosystems.

The expectation is that by managing the entire core ecosystems across the Bulkley TSA, as proposed in WCFC's FSP, all the values listed above will be maintained.

No direction is provided within the LRMP as to how much harvesting can take place within a CORE ecosystem without compromising the integrity and function of the ecosystem. If salvage or santiation harvest is planned, the harvesting will be completed according to the FSP's Figure 1: "Decision Matrix for Harvesting in Core Ecosystems". WCFC will not harvest within a CORE Ecosystem unless the plan is directed and approved by the District Manager.

5.1.2 Connectivity: Landscape Corridors

WCFC's intent is to manage landscape riparian corridors (LRC) under the direction of the Bulkley landscape unit plans. As in our previous FSP, WCFC will continue with the following management tools:

i. Measuring of 70% Functional Old Forest

In the past, the 70% functional old forest has been evaluated for each LRC that was established in the Bulkley TSA. Wetzinkwa will continue with the "3 for 10 "rule where 70% functional old forest is measured at a stand level not across an entire LRC. Therefore, for each cutblock proposed in a LRC, harvesting will not result in the area associated with the cutblock to be less than 70% functional old forest. The area associated with a cutblock will be adjacent to the proposed cut block but may not be in the total area under the plan. It is the responsibility of the forester preparing a site plan and or harvest plan to ensure the area associated with the cut block meets the "3 for 10" rule. This allows for harvesting of timber in LRC's that currently may contain less than 70% functional old forest, as long as the area associated with a cut block maintains 70% functional old forest. For example if there is an area of functional old forest in an LRC that is 9 ha in size then a maximum clearcut area of 2.7 ha can be harvested. Where alternatives to clearcut harvesting such as group selection or single tree selection are used the area of harvest is not limited as long as the post-harvest stand is deemed to be functional old forest.

ii. Maximum Opening Size

The current management under LUP's, allows a maximum opening size in an LRC of 3.0 hectares if clearcut. This FSP proposes that where the stand is infested with beetles the maximum clearcut opening size should be that opening size required to remove the infestation. If openings greater than 3.0 hectares are required to remove beetle infested timber then WCFC will make all reasonable efforts to retain as much structure as possible post-harvest by retaining un-infested species, poles saplings, and stubs in wind firm patches. Any units harvested that are greater than 3.0 ha will contain at least 30% infestation (grey, red and green attack) of the pine measured in the cruise or if no cruise is available estimated during mountain pine beetle probing.

Any clearcut units that are greater than 3.0 ha in size must still meet the requirement of 70% functional old forest associated with the cutblock. For example if an area of 4.5 ha is infested with MPB then in order to harvest the entire 4.5 ha of infested timber the total area that will need to be associated with the cutblock is 15 ha. As well the blocks will require a 100 meter wide buffer to maintain a Functional Old Forest corridor associated with the clearcut opening within the Landscape Corridor.

Wetzinkwa also added in the FSP a statement regarding retention in openings greater than 1 ha. Wetzinkwa will retain >/=60 stems/ha of which 50% must be greater than 15 cm dbh to try to maintain mature tree cover within the corridor and provide continuity in the corridor for wildlife habitat.

The following table is the summary of two analyses of the amount of CFLB (Crown Forested Landbase) in the different landscape corridors within the community forest:

Table 2: Summary of two analyses of the amount of CFLB in the different landscape corridors within the Wetzin'kwa Community Forest agreement area

Landscape Corridor	HLPO 2021 - % of CFLB greater than 80 years old	Wetzin'kwa Analysis - % of CFLB greater than 80 years old
Aldrich Lake	89%	86%
Hankin East	83%	86.3%
Passby Creek	96%	96.7%
Pine Creek	87%	85.6%
Pine Creek West	96%	90%
Silvern	64%	72.9%
Toboggan Creek	100%	100%
Upper Copper	84%	77.8%
Willow Creek	70%	71%

5.1.3 Seral Stage

Seral Stage GIS analysis was completed by Forsite for all blocks harvested and approved within the community forest agreement area, for each landscape unit and BEC subzone in 2021. Each harvested and approved block was assigned the following:

1.) BEC subzone. If a block straddles more than 1 BEC subzone, the block would be split along the mapped subzone If the actual coverage BEC subzone in the field was different than the mapped BEC subzone coverage, the mapped coverage was still used.
2.) VRI information for the different seral stages (young, mid, mature and old). The VRI coverage used was the 2021VRI coverage created updated in June 2019

Summary of GIS analysis

The following table summarizes the seral stage analysis for the different landscape units and BEC subzones in the entire landscape units that overlap with the community forest agreement area. The maximum young, the minimum mature & old, and the minimum old are the seral stage targets that we are managing towards as found in the FSP and Bulkley LRMP.

Table 3: Summary of the seral stage analysis for the different landscape units and BEC subzones that overlap with and extend beyond Wetzin'kwa Community Forest

Landscape Unit & BEC Subzone	Target Young (%)	Actual Young (%)	Target Mat & Old (%)	Actual Mat & Old (%)	Target Old (%)	Actual Old (%)
Bulkley						
SBSdk	n/a	26	n/a	42	10	19
SBSmc2	n/a	30	n/a	50	10	34
ESSFmc	n/a	9	n/a	78	n/a	2
ESSFwv	n/a	0	n/a	100	n/a	15
ICHmc	n/a	21	n/a	71	n/a	4
Copper						
CWHws	36	1	34	99	9	81
ESSFmc	36	22	28	68	9	11
ESSFwv	22	6	36	90	19	40
SBSmc2	54	37	23	55	11	46
MHmm	22	1	36	99	19	81
ICHmc	n/a	22	n/a	61	n/a	27
Telkwa						
CWHws	36	7	34	92	9	56
ESSFmc	36	4	28	84	9	27
ESSFmk	22	0	36	95	19	52
ESSFwv	22	11	36	88	19	55
ICHmc	n/a	22	n/a	62	n/a	0
SBSdk	54	27	23	58	11	21
SBSmc2	54	33	23	60	11	46
Trout Creek						
ESSFmc	n/a	0	n/a	100	n/a	0
ESSFwv	22	5	36	90	19	27
ICHmc1	36	27	31	62	9	17

Target exceeded

Comments and Discussion

Table 3 shows the harvesting levels in the entire landscape units, rather than the portion of landscape units that overlap with the community forest.

Copper LU and Bulkley LU

In both the Bulkley and Copper LU, the seral stage targets have not been exceeded within the community forest agreement area.

Trout Creek LU

ESSFwv

Within the Trout Creek Landscape Unit within the ESSFwv, the amount of Old is below the established target. Over the entire Trout Creek Landscape Unit within the ESSFwv subzone (as per the Bulkley HLPO 2017 report) the amount of Old is also below the target. The strategy for achieving the 'old' target will be via the recruitment from the 'mature & old'

category. This recruitment area is about 367 ha and has been spatially located within the mapped mountain goat habitat within the community forest of the Trout Creek LU within the ESSFwv.

It should be noted that Wetzin'kwa has not undertaken any harvesting yet within the ESSFwv subzone of the Trout Creek LU.

Telkwa LU

ESSFmc

Within the Community forest portion of the Telkwa Landscape Unit within the ESSFmc, the amount of Old is below the established targets. The mature and old target does not exceed the target and is ample mature timber for old seral stage recruitment. The recruitment area will be mature timber in the CORE within Telkwa LU in the ESSFmc. This area of mature timber is approximately 123 ha.

ESSFwv

Within the Community forest portion of the Telkwa Landscape Unit within the ESSFwv, the amount of Old is below the established targets and the amount of early is above the target. No harvesting will take place in this unit until the early target falls below the maximum threshold.

It should be noted that Wetzin'kwa has not undertaken any harvesting yet within the ESSFwv subzone of the Telkwa LU.

SBSdk

Within the Community forest portion of the Telkwa Landscape Unit within the SBSdk, the amount of Young is above the target and the amount of Old is below the target. The harvesting in this area pre-dates the establishment of the K2P community forest area. To date, no harvesting by Wetzin'kwa has occurred within this Landscape Unit within this BEC subzone. If harvesting is proposed within the community forest within the Telkwa LU within the SBSdk, a strategy will be developed with other licencees which have an operating area within the Telkwa LU's SBSdk.

It should be noted that Wetzin'kwa has not undertaken any harvesting yet within the SBSdk subzone of the Telkwa LU.

Wetzinkwa intends to keep a running total of the Old, Mature, Juvenile and Young during the FSP term to ensure we are meeting the seral stage targets outlined in Table 1 of the Bulkley LRMP (HLPO 2006). An analysis will be completed on the community forest tenure area at the end of the FSP term to ensure we are meeting the targets within the community forest area.

5.1.4 Objectives set by Government for Wildlife and Biodiversity – Landscape Level.

Patch size distribution (PSD) analysis was completed for all blocks harvested and approved in the community forest agreement area as of May 31, 2019. Separate analysis was completed for each Landscape Unit and natural disturbance type (NDT) combination.

Two separate analyses were initially completed using two different rules.

The first analysis (pre-2017 PSD) the block was categories using the following rules;

1.) If the block straddles more than 1 NDT type, the block would be split along the NDT type.
2.) The NDT type line is derived from the mapped NDT type coverage. If the actual NDT in the field is different than the mapped NDT type coverage, the mapped coverage was still used.
3.) The block is tagged with an age since harvest.
4.) A patch size class is comprised of areas recently disturbed by harvesting that are contiguous and within the same 20 year age class.
5.) Areas within the same 20 year age class are considered to be contiguously if they are immediately adjacent to each other.
6.) The analysis includes all harvest areas that are younger than the age defined as "juvenile" (<40 years)

The second analysis (post-2017 PSD) the block was categories using the following rules;

1.) If the block straddles more than 1 NDT type, the block would be split along the NDT type.
2.) The NDT type line is derived from the mapped NDT type coverage. If the actual NDT in the field is different than the mapped NDT type coverage, the mapped coverage was still used.
3.) The block is tagged with an age since harvest.
4.) A patch size class is comprised of areas recently disturbed by harvesting that are contiguous and are under 20 year of age.
5.) Areas within the same 20 year age class are considered to be contiguously if they are within 100 meters of each other.
6.) The analysis includes all harvest areas that are younger than the age of 20 years.

All blocks that were harvested or approved before May 31, 2019 were included within both analyses.

The following tables (Table 4) are the patch size distribution for the community forest agreement area in the different NDT in each LU.

Table 4: Pre-2021 Patch Size Distribution in landscape units that overlap with and extend beyond Wetzin'kwa Community Forest *

	Large		Medium		Small	
Landscape Unit - NDT	**Target**	**Actual**	**Target**	**Actual**	**Target**	**Actual**
Bulkley – NDT2	20-40 %	67%	30-40 %	0.0 %	30-40 %	22%
Bulkley – NDT3	50-80 %	0.0 %	10-20 %	60%	10-20 %	40%
Copper – NDT1	20-40 %	57%	30-40 %	17%	30-40 %	27%
Copper – NDT2	20-40 %	51%	30-40 %	20%	30-40 %	29%
Copper – NDT3	60-80 %	0%	10-20 %	78%	10-20 %	22%
Telkwa – NDT1	20-40 %	58%	30-40 %	22%	30-40 %	20%
Telkwa – NDT2	20-40 %	23%	30-40 %	36%	30-40 %	40%
Telkwa – NDT3	60-80 %	9%	10-20 %	64%	10-20 %	27%
Trout Creek – NDT1	30-40%	0%	30-40%	47%	20-40%	53%
Trout Creek – NDT2	30-40%	29%	30-40%	21%	20-40%	49%
Trout Creek – NDT3	10-20%	0%	10-20%	51%	60-80%	49%

* Completed by Forsite with data compiled from all licensees within the Landscape Units.

Table 5: Wetzin'kwa post-2021 Patch Size Distribution:

	Large		Medium		Small	
Landscape Unit & NDT	**Target**	**Actual**	**Target**	**Actual**	**Target**	**Actual**
Bulkley – NDT2	20-40 %	0.0 %	30-40 %	0.0 %	30-40 %	100 %
Bulkley-NDT3	60-80 %	0.0 %	10-20 %	4.4 %	10-20 %	95.6 %
Copper-NDT1	20-40 %	0.0 %	30-40 %	21.0 %	30-40 %	79.0 %
Copper-NDT2	20-40 %	22.7 %	30-40 %	32.3 %	30-40 %	45.5 %
Copper-NDT3	60-80 %	8.0 %	10-20 %	71.0 %	10-20 %	21.0 %
Telkwa-NDT1	20-40 %	0.0 %	30-40 %	0.0 %	30-40 %	0.0 %
Telkwa-NDT2	20-40 %	0.0 %	30-40 %	100.0 %	30-40 %	0.0 %
Telkwa-NDT3	60-80 %	0.0 %	10-20 %	75.9 %	10-20 %	24.6 %

Comments

Wetzin'kwa has not undertaken any harvesting in the Trout Creek LU.

The majority of the Bulkley LU is located within the Community Forest RMZ. Within the Community Forest RMZ, Wetzin'kwa has stated in its previous FSP that no patches will be greater than 10 hectares in size. Therefore the patch sizes are distributed to the small size patch.

Wetzin'kwa has undertaken significant harvesting within the Telkwa LU. The majority of the area east of Pine Creek is located within the Community Forest RMZ. For the Community RMZ portion of this LU patch size, Wetzin'kwa has stated in their previous FSP that no patches will be will be greater than 10 hectares in size.

Harvesting within the remaining Telkwa LU has been targeting the Pine leading stands as part of it beetle salvage program. The strategy often results in creation of small or medium patches as areas of non-pine types were excluded. Opportunity for "large" patches has been constrained by other resource values placed in this LU such as hydrological values and visual values.

Wetzin'kwa has undertaken extensive harvesting within the Copper LU since the community forest licence came into existence. Harvesting within the Copper LU has been targeting the Pine leading stands and therefore patches have been medium to small for the most part. Due to previous harvesting before the community forest came into existence and the spatial distribution of the NDT3 as well as other resource values (CORE and Landscape Riparian Corridors), it is difficult to achieve large patches within the NDT3 (>250ha). Within NDT 2, the harvesting that has taken place is very close to the targets. Within NDT 1, very limited harvesting has taken place under the community forest agreement area so far.

Strategies for Achieving Patch Size Targets

Strategies for achieving target levels for patch size distribution have been significantly deferred as harvest attentions have be directed to the salvage of mountain pine beetle infested stands. The salvage of infested stands resulted in creation of small or medium patches as areas of non-pine types are excluded from the block areas. The rationale for excluding non-pine types conforms to both Wetzin'kwa's protocol of targeting infested timber for harvest, as well as the MFLNRO's stipulations attached to the K2P salvage AAC uplift, namely that, pine should represent a minimum of 80% of the timber harvested.

As Wetzin'kwa is out of its salvage AAC uplift, timber harvesting can be, for the first time, directed towards the full range of mature stand types. This move will enable the creation of units, either as stand-alone patches or as aggregations of smaller patches into the large patch category, which is deficient in area.

The portion of the Trout LU that falls within the K2P tenure is sufficiently small that achieving the target distribution of large patches, for either NDT category will be difficult due to other values such as visual quality objective and fishery sensitive watersheds. The strategy for achieving targets will be largely tied to cooperative planning with other licensees sharing the LU.

The majority of the Bulkley LU within the K2P tenure is located within the Community Forest RMZ which had been limited to patches less than 10 hectares in size. The remaining portion of the LU that falls outside of the Community Forest RMZ is sufficiently small that achieving the target distribution of large patches, for either NDT category will be difficult. The strategy for achieving target will be largely tied to continued cooperative planning with other licensees sharing the LU.

The portion of the LU that falls within the K2P tenure is sufficiently small that achieving the large distribution of large patches, for either NDT category will be difficult. The strategy for achieving target patch size distribution will be largely tied to cooperative planning with other licensees sharing the LU.

In the Copper LU, for NDT 1, the strategy is to try to amalgamate small patches into large patches. In the NDT 2 the strategy is to amalgamate small patches into medium and large patches. In NDT3, the strategy is try to increase the size of some of the medium patches to create larger patches.

In the Community Forest RMZ, Wetzin'kwa is dropping the 10 ha patch size restriction which we had in place in previous FSP. With the new patch size distribution rule of having 100 meters between patches to be considered a separate patch, this will be cumbersome and restrictive. Other resource values such as the recreation values and visuals place constraints on timber harvesting already. Management of forest health and forest fuel reduction may result in larger patches than the 10 hectare size.

Wetzinkwa intends to keep a running total of the small, medium and large patch size distribution within our FDU during the FSP term to ensure that we are trending towards the targets outline in Table 2 of the FSP. An analysis will be completed on the community forest tenure area at the end of the FSP term to ensure we are trending to the patch size targets within the community forest area.

5.1.5 Tree Species Diversity

In regards to conifer tree species diversity, this is being managed by following the preferred and acceptable species as outlined in the stocking standards.

Management practices proposed in this FSP in regards to deciduous species are:

- WCFC will focus WTP's and leave areas on deciduous species where the volume of standing timber of deciduous species in the cutblock is greater than 10% of the net merchantable volume of all standing timber in the cutblock
- WCFC will only conduct manual brushing treatments in areas designated as moose and deer winter habitat. These areas represent areas that naturally have a high component of deciduous species for ungulate winter browse. As a result a deciduous growing stock will be left on a significant portion of the community forest landbase.

In addition to the legal commitments in the FSP some management practices that WCFC will employ that will facilitate deciduous species being part of the future timber inventory are:

- WCFC generally will not target cutblocks where deciduous species is a major component of the merchantable volume.
- WCFC will retain and maintain an active deciduous component within our proposed fire management unit stocking standards. Within the fire management unit stocking standard units, aspen, birch and cottonwood will be considered as acceptable species.

5.1.6 Stand Structure

WCFC's intent is to manage stand structure under the direction of the Bulkley HLPO. The anticipation is that in most cases the WTP requirements found in Table 2 (FSP) of the Stand Structure objective will be managed on a cutblockbasis. However, flexibility has been built into the strategies to allow WTP's to be met across the BEC subzone of a landscape unit. Therefore, for blocks that are less than 15 hectares the prescribing forester does not have to assign a block specific WTP that would be relatively small may be subject to blow down, and not functional towards achieving the stand level biodiversity goals for a WTP. Instead the prescribing forester can lump the WTP requirements for these blocks together and assign them as part of a larger block in the same landscape unit and BEC zone as long as the WTP reflects the original cutblock conditions immediately before harvest.

Table 4 summarizes the Wildlife Tree Retention Area (WTRA) by LU and Subzone for all of the areas harvested under the K2P licence. You will note that for each subzone and LU combination that the retention percent exceeds the target specified in the Wetzin'kwa FSP.

Table 6: Wildlife Tree Retention Area – Summary

Landscape Unit	BEC Subzone	Gross Cutblock Area (ha)	WTRA Area (ha)	WTRA (%)	WTRA target (%)
Bulkley	**SBSdk**	103.0	7.7	7.5	5
Bulkley	**SBSmc2**	274.0	18.1	6.6	7
Bulkley	**ESSFmc**	0.7	0.1	14.3	
Bulkley	**ICHmc1**	22.1	0.3	1.4	
Copper	**SBSmc2**	614.5	43.0	0.5	5
Copper	**ESSFmc**	381.9	23.1	6.0	1
Copper	**ESSFwv**	51.9	2.6	5.0	3
Copper	**ICHmc1**	204.4	17.1	8.4	
Telkwa	**SBSmc2**	1168.1	96.4	8.3	7
Telkwa	**SBSdk**	9.0	0	0	0
Telkwa	**ESSFmc**	50.5	3.4	6.7	

The FSP expectations letter indicated under the Stand-Level Biodiversity section that the density of large snags and large diameter trees is lower than what is naturally expected both in terms of volume and density. In this respect, Wetzinkwa included in their FSP a list of WTRA attributes to help define areas that should be placed in WTRAs. One or more of these attributes will need to be form a WTRA, which should help in the retention of snags and larger diameter trees.

5.1.7 Sensitive Areas

A draft Sensitive Area Order has been written to protect rare vegetation in the northern portion of the Glacier Gulch/Toboggan Creek fan. The purpose of the draft sensitive area is to maintain hydrogeomorphic processes on the fan, and the mosaic of plant communities that are a product of these processes. To date, Wetzin'kwa has not harvested in this area nor does it have plans to harvest or construct road within the fan.

5.2 Objectives set by Government For Wildlife

5.2.1 Activities Related to Wildlife Species

5.2.1.1 Mountain Goat

Ungulate Winter Range Order #6-007 Bulkley Mountain Goats –Skeena Stikine Natural Resource District came into effect on September 3, 2019. The government is in the process of removing the mountain goat section from the Bulkley LRMP. Harvesting within the mountain goat order will follow the new GAR order and therefore no results and strategies are proposed for mountain goat in this FSP.

5.2.1.2 Moose

WCFC has proposed no significant changes in this FSP to the results and strategies currently being followed under the direction of the landscape unit plans. In regards to retaining woody forage species, the special circumstances under division 7.4, clauses (c) and (d) permit the retention of aspen, cottonwood, birch and brush species adjacent to riparian features during silviculture treatments.

An open road density of 0.6 km/km2 was suggested as a road density threshold within mapped moose winter range (CFLB) as an result/strategy for ensuring security cover. Although the WCFC is not opposed to such an idea on an open road density for moose security cover, we would be in non-compliance to begin with. The existing roads within the mapped moose habitat are some of the main roads through the community forest and beyond (ie portions of Wood Creek Road, 703 Road, McDonell Lake FSR and McDonell South FSR, 715 Road and 714 Road are within mapped Moose Winter Range). Within the community forest tenure area, the total area of the mapped moose habitat is roughly 19.8 km2 and the existing road within the mapped moose habitat is roughly 14.6 km. This gives us an open-road density of approximately 0.736 km/km2. All roads WCFC has built since its' inception within the moose habitat have been either winter roads, or have been deactivated or will be de-activated shortly. WCFC has stated in their FSP that all roads will be deactivated within a cutblock not required for future timber development once the block is planted.

5.2.1.3 Deer

WCFC has proposed no significant changes in this FSP to the results and strategies currently being followed under the direction of the landscape unit plans. In regards to retaining woody forage species the special circumstances under division 7.4 clauses (c) and (d) permit the retention of aspen, cottonwood, birch and brush species adjacent to riparian features during silviculture treatments.

Where WCFC proposes harvesting in mapped deer habitat that is adjacent to steep south facing slopes, the areas adjacent to these slopes will be targeted for wildlife tree retention areas. The intent of these wildlife retention areas is to provide mature cover adjacent to the steep south facing slopes. Steep slopes are intended to be areas with a sustained slope of greater than 60% and longer than 30 meters in slope distance.

5.3 Objectives set by Government For Fish Habitat and Water Quality

5.3.1.3 Retention in RMZ's

In general, in the last 10 years, Wetzin'kwa has left 5 m or greater unharvested buffers along small streams. This allowed Wetzin'kwa to meet or exceed their FSP stream retention requirements at that time.

The FSP expectations letter indicated that new FSP are expected to better reflect retention levels characteristics of what the healthy unmanaged plant community would be normally be within the first 10 meters for small streams (S4 and S6).

For riparian features with a reserve zone, the provision in the FSP is to retain merchantable timber in the riparian management zone. In most cases, it will be the additional area equivalent to the basal area to be retained in the RMZ. In circumstances, such as forest health issues or blowdown within the riparian management zone, the percentage of basal area retained may be used to calculate retention within the Riparian Management Zone. If trees to be retained within the RMZ are assessed as a high wind throw hazard or is a potential safety hazard, the tree maybe stubbed at >3 m in height and still contribute to retention within the RMZ.

For stream features that do not have a reserve zone, the FSP describes the type and amount of retention within 10 meters of the stream edge. The provision requires that care is taken during harvesting operations to retain 50% of the basal area of the merchantable timber within 10

meters, as well as retain as much non-merchantable vegetation as possible. Preference will be given to retaining trees that contribute significantly to stream bank or channel stability, such as streams rooted directly in the stream bank. If the retained tree is assessed as has having a high wind throw hazard or as a potential safety hazard, the tree may be stubbed at >3 m in height and still contribute to retention within the RMZ. Within the 10 meters of the stream edge, a falling away strategy will also be implemented to reduce the fine material ending up in the stream bed.

Retaining undisturbed herbaceous and woody vegetation, non-merchantable and merchantable trees adjacent to streams without reserve zones as part of the result or strategy is consistent with the following objectives (from FPPR section 52(2) and section 8):

- **stream bank and channel stability**: retaining vegetation will reduce surface erosion and live roots will stabilize the bank and channel;
- **fish habitat**: the vegetation provides shade for temperature control as well as leaf and insect fall for food;
- **water quality**: the vegetation filters sediment;
- **wildlife habitat**: the vegetation provides hiding and forage cover, and
- **biodiversity**: the vegetation provides vertical structure and a diversity of plants.

5.3.2 Objectives set by Government For Fish Habitat in Fisheries Sensitive Watersheds

This subparagraph of the FSP is related to the Fisheries Sensitive Watershed Order for the Skeena Region which came into effect on December 28, 2005. The results and strategies address forest management activities in the designated Fisheries Sensitive Watersheds. In particular how they relate to conserving natural hydrological conditions, conserving quality and quantity and timing of water flow, and preventing cumulative hydrological effects that would have a negative impact on fish and fish habitat.

This objective is managed via site specific results and strategies to protect fish passage, stream bank and channel stability, and to prevent adverse material from entering a stream when operations are occurring during harvesting and road building activities. These site level results and strategies are outlined in subparagraph 5.3.1.2, of the FSP. In addition sections 55 (1) (2), 56 (1) to (3), and 57 of the FPPR outline specific results that must be achieved in regards to stream crossings, fish passage, and protection of fish and fish habitat. In order to meet these results WCFC will follow the Skeena Region In-stream Work Windows and Measures May 2005.

Fisheries sensitive watersheds must also be managed to ensure forest management does not have cumulative hydrological effects resulting in negative impacts on fish and fish habitat. Toboggan Creek is the only fisheries sensitive watershed within WCFC license area. In addition to the targets set as part of the watershed assessments other management objectives such as Core ecosystems, landscape riparian corridor, a preservation VQO polygon will help to contribute to the overall management of fisheries sensitive watersheds. To date, Wetzin'kwa Community Forest Corporation has not harvested within the Toboggan Creek fisheries sensitive watershed.

5.3.3 Objectives set by Government for Water in Community Watersheds

No community watersheds are located within WCFC licence area at the time of submission. Kathlyn Creek area residents, who use Kathlyn Creek as a domestic water source, have

indicated that they have submitted to the Ministry of Environment a community watershed application. In anticipation of a successful application, the Kathlyn Creek Area residents have asked WCFC to incorporate results and strategies regarding community watersheds into the FSP. In addition to this, results and strategies for watersheds with licenced waterworks have been added to the FSP to help ensure the rights of water licence holders are protected in watersheds with a licenced waterworks.

Several letters from the FSP review and comment period were received by the community forest. In general the comments were positive in regard to Wetzin'kwa recognizing the proposed Kathlyn Creek community watershed. There is concern in regards to the cumulative effects of road construction and timber harvesting, mineral exploration in the past and potential road construction and timber harvesting in the future. Wetzin'kwa anticipates if the community watershed gets approved the watershed will be subject to some thresholds/targets for road construction or timber harvesting. If Wetzin'kwa plans to harvest in the watershed without any indicated targets and thresholds in place, Wetzin'kwa will meet with the Kathlyn Creek Watershed Group to come up with targets and thresholds before harvesting can take place. Wetzin'kwa only plans to harvest in that area if forest health issues (i.e., spruce beetles) arise or wildfire spreads through. The upper portion of the watershed contains steep unstable or potential steep slopes, and in conjunction with the visual quality area of retention in the area, will limit harvesting for most of the area.

Also a statement regarding pesticide and herbicide use has been included. WCFC will not use pesticides or herbicides to treat brush within the community forest.

In preparing this FSP, WCFC reviewed the location of existing points of diversion (POD's) for water licences in the community forest using BC Water Resource Atlas. Presently, three POD's are located within the Community Forest Licence, in the northeast corner of the licence area. WCFC will continue to rely on the BC Water Resource Atlas to locate and track all POD's in the community forest licence area to ensure in the future that operations do not occur within 100m upslope of a licenced waterworks.

5.3.4 Objectives for Fish Habitat

Relative to the Objective for Fish Habitat – WCFC's result or strategy incorporates a management strategy around "wilderness lakes" that have been designated as such by the District Manager. To date WCFC is aware of a listing of candidate wilderness lakes; however, we have not been informed of any formal wilderness lake designations by the District Manager. The current listing of proposed wilderness lakes in WCFC's proposed FDU, based on the draft wilderness lakes proposal dated July 2002, is as follows:

- Silvern (north)
- Silvern (south)

(Both of these lakes are located within Silvern Lakes RMZ-(Special Management Zone 1), which does not allow for timber harvesting, except for mineral development.

Until there is an official designation of wilderness lakes in the Bulkley TSA, WCFC will follow the strategies listed under subparagraph 5.3.4.2 when operations occur in the area of the lakes listed above.

5.4 Enhanced Timber Development Areas

WCFC will direct harvest activities to areas within the FDU that will benefit long term timber supply and productivity. As indicated in the FSP strategy, mature and over mature stands will

be targeted, as will stands that are at risk due to forest health factors. In the case of forest health, we will endeavor, where practical and economical, to salvage timber values prior to those values deteriorating significantly.

In Part 7 of the FSP the stocking standards are clarified for reforestation within the community forest. It should be noted that Wetzinkwa tries to use class A seed throughout the community forest and not just in the enhanced timber development areas.

5.5 Objectives for Outdoor Recreation

WCFC has implemented a Resource User Group (RUG) with various recreational user groups in the Community Forest. This group is open for the public to be involved within the community forest. Adjacent landowners and recreational users with tenures in the community forest are the main groups that attend these meetings. The group meets approximately once a year. If one or more groups have concerns regarding harvesting, Wetzin'kwa has also met and will continue to meet with individual groups to address concerns they have been brought to our attention.

Since the last FSP approved, several FRPA section 56 recreation sites and trails have been developed by various local recreation groups within the community forest tenure area. The following recreation site and trails have been developed;

1.) Community Forest Trails – Includes cross country ski trails of Bulkley Valley Cross Country Ski Club and hiking trails of the Bulkley Valley Backpackers Club.
2.) Piper Down Recreation Site, the Bluff Recreation Site and Ptarmigan Recreation Trails (all are partially located within the community forest) are operated by the Smithers Mountain Bike Association.

Wetzin'kwa Community Forest Corporation has developed a Memorandum of Understanding (MoU) with the Bulkley Valley Cross-country Ski Club and Smithers Mountain Bike Association which will guide Wetzin'kwa's forest management within their recreation tenure area. These MoU are included in this document under the Appendixes.

When the Wetzinkwa Community Forest began operations many of the established trails did not have any section 56 designations. At the time, the main concern by the ski club and Smithers Community Forest Society was that the trails could be harvested on and adjacent to trails with no legal protection. Therefore the MOU were established as bridging the gap until the trails have a legal section 56 designation. Wetzinkwa has and will continue to meet the various clubs when harvesting and road construction may affect their trails. Wetzinkwa will continue to work with Rec Sites and Trails BC and ensure that section 16 authorizations under Forest Recreation regulation are obtained for road construction and timber harvesting in the vicinity of recreation trails and sites.

5.5.1 Recreation Opportunities

Within WCFC's proposed FDU there are 2 designated recreation sites within which WCFC will not conduct any harvesting unless directed to do so by the District Manager.

- Dennis Lake
- Twin Falls (Glacier Gulch)

- The Bluff Recreation Site

Within WCFC's proposed FDU there are 3 designated recreation sites which are maintained by recreation site tenures:

- Piper Down – Smithers Mountain Bike Association. Another recreation site is being developed by the Smithers Mountain Bike Association and will added to the list of recreation sites.
- Smithers Community Forest Trails – Bulkley Valley Cross-Country Ski Club and Bulkley Valley Backpackers
- Ptargamin Recreation Trails – maintained by Smithers Mountain Bike Association

Within WCFC's proposed FDU there are 9 established recreational trails to which WCFC will manage as per the results and strategies in subparagraph 5.5.1.1

- Silvern Lakes Trail–non FRPA sec 56 trail
- Toboggan Creek Trail–non FRPA sec 56 trail
- Glacier Gulch Trail –non FRPA sec 56 trail
- Ptarmigan Recreation Trails – Smithers Mountain Bike Association
- Pine Creek Connector snowmobile Trail – Smithers Snowmobile Association
- Passby Creek – Bulkley Valley Backpackers
- Hudson Bay Glacier Trail – non FRPA sec. 56 trail
- Opal Ridge Trail – non FRPA sec. 56 trail
- Duthie West Trail – non FRPA sec 56 trail
- Opal Back Door Trail – non FRPA sec 56 trail
- Rockpile Trail – non FRPA sec 56 trail

Within WCFC proposed FDU, a "recreation emphasis area" has been delineated which incorporates many of the Northeast Slope Trails and the Bulkley Valley Cross Country Ski Trails (existing and proposed). WCFC will manage this "recreation emphasis area" as per the results and strategies in subparagraph 5.5.1.2 and the Memorandum of Understanding.

5.5.2 Recreational Access

Within WCFC's proposed FDU there are 4 designated recreation sites and 9 established recreational trail to which WCFC will manage access as per the results and strategies in subparagraph 5.5.2.1

- Silvern Lakes Trail–non FRPA sec 56 trail
- Toboggan Creek Trail–non FRPA sec 56 trail

- Twin Falls Trail–non FRPA sec 56 trail
- Glacier Gulch Trail –non FRPA sec 56 trail
- Ptarmigan Recreation Trails – Smithers Mountain Bike Association
- Pine Creek Connector snowmobile Trail – Smithers Snowmobile Association
- Passby Creek – Bulkley Valley Backpackers
- Hudson Bay Glacier Trail – non FRPA sec. 56 trail
- Opal Ridge Trail – non FRPA sec. 56 trail
- Duthie West Trail – non FRPA sec 56 trail
- Opal Back Door Trail – non FRPA sec 56 trail
- Rockpile Trail – non FRPA sec 56 trail

5.6 Visual Quality

Relative to the Objective for Visual Quality – the LRMP contains direction for the management of visual resources, as do the landscape unit plans; however visual quality has been omitted from the order entitled "Bulkley LRMP Objectives Set by Government– September 2006". WCFC has taken the viewpoints and scenic areas as well as the strategies identified to address the visual quality objectives from the landscape unit plans and incorporated those as strategies in our FSP.

WCFC will conduct visual impact assessments, which address the strategies listed in the FSP, where cut blocks greater than 1 ha are proposed in areas with visual quality objectives of preservation, retention and partial retention. If requested these visual impact assessments will be made available for government agencies to review.

Road location and construction is determined by engineering constraints, topography, critical control points and safety considerations. Therefore, the opportunity to amend road locations for visual management purposes is very limited. For this reason roads have not been included in the results and strategies for visual quality in WCFC's proposed FSP.

For activities within 150 meters of private land, Wetzin'kwa has changed the approach to harvesting near private property. Wetzin'kwa will engage the land owner early in the planning process and come up with strategies for timber development and access points adjacent to their property. This allows the community forest to use various different strategies for different issues (i.e., forest health and wildfire mitigation) for proposing activity within 150 meters of private land.

5.7 Objectives set by Government for Cultural Heritage Resources

The objective is to protect and conserve cultural heritage sites, features, and values and to maintain and enhance a good working relationship with Wet'suwet'en peoples. Maps of known

cultural heritage sites are kept confidential from the public by the Office of the Wet'suwet'en in order to better protect sites from disturbance. Hence these known sites are not shown on the LRMP and LUP maps. Consequently, harvesting and road development plans will be referred to the Office of the Wet'suwet'en to ensure known cultural heritage sites and resource values are identified and protected or conserved from harvesting disturbances, dependent upon their nature. Due to the chances of finding unknown cultural heritage sites / features when timber development is underway the following steps will be taken:

a. Stop any development work or harvesting in the vicinity of where there are indications of a cultural heritage resource site / feature being found;

b. GPS and map any heritage resource features; and

c. Provide a location map and communicate findings to the Office of the Wet'suwet'en and request their review of the importance of the feature and advice as to the steps to be taken to protect and conserve the heritage resource.

5.8 Objectives set by Government for Soils

The Agreement Holder adopts the "default" provisions, sections 35 and 36 of the Forest Planning and Practices Regulation (FPPR), as the result or strategy.

5.9 Resource Management Zones

Within the context of the LRMP and the LUPs, Resource Management Zones have been developed for 6 areas within the forest development unit described in the forest stewardship plan. The following sections describe WCFC intent in managing these Resource Management Zones for activities carried out under the forest stewardship plan.

(a) Glacier Gulch Resource Management Zone

The Glacier Gulch area was recognized in the LRMP process in terms of riparian, fisheries, biodiversity, visual and recreational values.

- A large part of the Toboggan Creek watershed, which is a fisheries sensitive watershed, is located within this resource management zone.
- VQO designations of either Preservation or Retention also cover the majority of the area in this resource management zone.
- Several recreational trails are located within this RMZ.

These designations and their associated objectives are managed within the forest stewardship plan.

(b) Silvern Lakes Resource Management Zone

The Silvern Lakes Resource Management Zone was recognized in the LRMP process in terms of its backcountry recreational opportunities and visual values. In this zone, timber harvesting will only take place for approved mineral and energy exploration and development.

(c) Hudson Bay Resource Management Zone

The Hudson Bay Mountain Resource Management Zone was recognized in the LRMP process in terms of its' recreational opportunities and visual values.

- VQO designation of Modification covers the majority of the area within the WCFC licence area.

- Within the Community Forest tenure area of the Hudson Bay Resource Management Zone approximately 75% of the area is in alpine area. Within the timbered area, approximately 75% of the area is within mapped mountain goat habitat. Of the remaining timber area, approximately 75% of the area is within a CORE ecosystem, leaving approximately 20 hectares, not constrained by non-timber values. The low potential harvest level should provide significant opportunity for developing recreation opportunities without having timber harvesting recreation conflicts develop.

These designations and their associated objective are managed within the forest stewardship plan.

(d) Community Forest Resource Management Zone

The Community Forest Resource Management Zone was recognized in the LRMP process in terms of water quality, biodiversity, recreational and educational opportunities and visual values.

- VQO designation of Retention covers this area within the WCFC licence area.

- A "Recreation Emphasis Area" covers the existing cross-country ski trail network area, and the existing hiking trail networks located within this RMZ. The area also includes proposed extension of the cross-country ski trails. Memorandum of Understanding (MOU) with the Bulkley Valley Cross-Country Ski Club, provide guiding principles as how to development will proceed within the "Recreation Emphasis Area".

These designations and their associate objectives are managed within the forest stewardship plan.

(e) Copper River Resource Management Zone

The Copper River area was recognized in the LRMP process in terms of riparian, fisheries, biodiversity, visual and recreational values.

- VQO designation of Modification covers the area surrounding Dennis Lake.

- The entire length of the Copper River RMZ within the Community Forest tenure area is in either a CORE ecosystem or landscape corridor. Reference to the CORE ecosystem and Landscape Corridors reflect the reduced levels of harvest that can occur in the area. It is anticipated that in addition to the FSP identified recreation provisions that the reduced harvest levels assisted with the CORE ecosystems and Landscape Corridors will merely reduce the possibility of harvest/recreation conflict both spatially and temporary.

- Recreational opportunities will be maintained in this area by having a reduced harvest levels imposed by harvesting restrictions within the CORE ecosystem and Landscape Corridors which cover the entire RMZ.

These designations and the associated objectives are managed within the forest stewardship plan.

6.0 MEASURES

Range use within the Bulkley TSA has been relatively limited in scope as compared to other portions of the interior. WCFC recognizes the significance of range use and are committed to working alongside the range tenure holder. The following section outlines management efforts that will be undertaken to accommodate range use. WCFC also has a strong expectation that range users will recognize forest use and particularly reforestation and riparian values when grazing cattle on forest land.

6.1 Measures for Preventing the Introduction or Spread of Invasive Plants

Historically, the management of invasive plants has not been a high priority in the Bulkley TSA. As range use expands and low elevation harvest associated with the mountain pine beetle infestation escalates, WCFC recognizes the need for improved management of invasive plants.

WCFC intends, as outlined in the FSP strategy, to gain a better understanding of the plants that are a concern within the FDU. We plan to arrange a session for pertinent staff to meet with local range experts to aid in the identification of plants and also to gain an understanding of the present areas of concern within the district. Through better knowledge of present problem areas, better identification knowledge and an understanding of spread factors, WCFC will be better able to prioritize areas for its grass seeding program. Where WCFC staff or consultants find invasive plants in our operating areas, these will be reported to the Northwest Invasive Plant Council annually by December 31.

Where invasive plants are present and further spread is a risk, WCFC intends to carry out a seeding program on areas of exposed soil greater than 0.1 ha in size, in order to re-vegetate the site. This seeding will occur within two growing seasons of the activity being initiated. For example if a road is built in July and August of 2007 it would need to be grass seeded by September of 2008 as the summer of 2007 would count as a growing season. Typically, a standard grass seed mix has been utilized; with occasional usage of specific seed mixes to aid in wildlife management all seed used will meet the Canada Common Number 1 requirements as per the *Canada Seeds Act*.

Wetzinkwa uses the Canada No. 1 Forage Mixture to seed disturbed areas. The mixture consists of the following:

Annual Ryegrass 35%
Fescue 35%
Red Fescue 20%
Timothy 10%

6.2 Measures to Mitigate the Loss of Natural Range Barriers

WCFC will communicate with range tenure holders on broad level development plan issues and to a lesser extent block specific issues. A map of range tenures will be maintained in our office and range tenure holders will be notified of impending harvest activities.

Where new range tenures are being proposed or existing tenures are being modified WCFC should be notified and asked for comments regarding these changes. Where range tenures exist, WCFC would like to receive information on where natural range barriers are considered to exist. Our assumption would be that many of the range tenure natural barriers are overlapping the boundary of the tenures or are a close approximation of the tenure boundary. Where natural range barriers are identified and WCFC activities compromise the intent or usefulness of the

barrier, we will utilize our FSP strategy of trying to come to a mutually agreeable arrangement with the range tenure holder.

7.0 STOCKING STANDARDS

As stated in section 2.3 of our Forest Stewardship Plan (FSP) Stocking Standards apply only to:

- Reforestation Obligations within the FDU associated with Community Forest License K2P; and to
- Site Plans approved after FSP Effective Date.

These Stocking Standards do not apply to:

- Other Forest Licenses, or to
- Silviculture Reforestation Obligations defined by Silviculture Prescriptions.

To maintain our ability to take full advantage of favorable microsites, WCFC has opted to continue using provisions for 1.0 m Minimum Inter-Tree Distance (MITD) for specific wet series (see appended stocking standards) The MITD used here conform to those used in the current WCFC FSP as well as those developed and used by PIR.

7.1 Definitions:

NSR, "M" Value, and Countable Conifers, have also been added to provide clarity and consistency to ensure specific and measurable standards for assessing FSP Stocking Standards in the future.

WCFC FSP Appendix "A" Even-Aged Stocking Standards

Defines the Even-Aged Stocking Standards for each Site Series within each Biogeoclimatic Ecological Classification (BEC) Sub-zone WCFC operates in.

These Even-Aged Stocking Standards will apply to all Standards Units where the retained basal area of overstory (Layer 1) trees is less than or equal to $5m^2$ / ha. This will most often be the case.

The footnotes provide clarity as to where different Standards may be applied for site specific circumstances.

7.2 Special Circumstances:

Define situations where deviations to the Stocking Standards apply.

7.3 Appendix "B" Partial Cutting Stocking Standards

WCFC will continue the use of partial cutting stocking standards from their previous FSP. These partial cutting stocking standards came from a previous West Fraser – PIR's FSP. The rationale supporting the approval of West Fraser-PIR's partial cutting stocking standards is as follows.

Defines the Partial Cutting Stocking Standards for Standards Units where the retained basal area of overstory (Layer 1) trees is greater than 5m2 / ha. This Standard has been developed in consultation with Pat Martin of the Forest Practices Branch. Two field reviews to introduce the Deviation from Potential (DFP) methods occurred with Pat Martin (Bulkley and Lakes TSAs). Tyhee Forestry Consultants also conducted a field test of the procedures. The DFP

productivity to define acceptable levels of stocking is based on the Universal Growth Law and Langsaeter's theory for determining B-level Stocking. The methodology has been tested both in the field and by the Inventory Branch, using TASS_TIPSY runs. The resulting Partial Cutting Stocking Standards has been passed by Pat Martin for his review and comment. PIR intends to use this methodology as a replacement for Multi-Storey Surveys, as we believe that the DFP method provides a better reflection of reality on the ground.

Trees are retained on-site to meet a multitude of values including: future crop trees, maintaining legacies of biological diversity, recruitment of snags and coarse woody debris, riparian protection, visual quality, wildlife habitat, and hydrologic recovery. These values may be met by both acceptable crop trees, as well as those that do not the acceptability criteria.

WCFC understands that any tree retained on-site must meet Forest Health and Damage criteria, as well as other stocking standards, in order to be classified as a "crop tree". In order to ensure this happens our FSP specifies these Silviculture Forest Health and Damage acceptability requirements.

- *The FSP Stocking Standards Special Circumstances, Section,7.4 (i) (i) references the Prince Rupert Free Growing Guidebook, Appendix 10, which includes Table A10-2, providing Acceptability and Damage Criteria for layers 1 and 2.*
- *Table A10-2 also links to Table 4 of the Tree wounding and Decay Guidebook.*
- *Any damage acceptability criteria for Balsam will be based on the Prince Rupert, Balsam Acceptability Criteria (BAC), as per Section 7.4 (i) (ii).*
- *When assessing Balsam, the BAC will take precedence over Appendix 10, Table A10-2 of the Prince Rupert Free Growing Guidebook.*

The MOFR has expressed concern over the possibility that an excessive amount of pulp trees (Layer 1) could be left behind taking up growing space and impacting site occupancy. WCFC will ensure adequate stocking is met with acceptable stems of Layers 1, 2, 3, and 4, as per the proposed Partial Cutting Standards. The term acceptable will be based on whether a tree meets the criteria defined in the above documents.

9.0 Climate Change Adaptation

9.1.1 Forest Health Issues

Due to the relatively young age of the K2P tenure, there are few Wetzin'kwa plantations that have achieved free growing status and therefore inferences related to forest health, outside of the immediate term, must be drawn from the health and vigor of other plantations within the tenure, data from the Timber Supply Area as a whole and presumptions related to potential climate change trajectories.

A review of the 2015 mapping of the rust and 2017 mapping of the dothistroma incidence level mapping indicate that, though there are two plantations exhibiting high levels of hard pine stem rusts, the area falling within the K2P tenure appears to have low levels of hard pine stem rusts relative incidence levels exhibited in the adjacent Burns Lake and Morice TSAs.

The current rust incidence levels notwithstanding, Wetzin'kwa will implement a rust monitoring protocol to gauge any changes to these incidence levels over time.

The rust incidence protocol will include;

- an annual review of any rust incidence mapping,
- A walk-through will be conducted in established plantations adjacent to openings planned for silviculture survey to assess rust incidence levels.
- Regeneration and Free-growing silviculture surveys of Wetzin'kwa openings will include a summary note specific to rust incidence.

The information/data gathered from the rust incidence protocol will be reviewed biennially to determine if any changes to initial planting density are warranted. As a result of forest health agents, mostly notably dothistroma and hard pine stem rusts, Skeena Stikine District personnel have voiced that a number of stocking parameters should be considered, namely

- species distribution
- planting densities
- free-growing height and age

9.1.1.1 Species

Since Wetzin'kwa's establishment, ten spring/summer plants were undertaken resulting in a total of the planting of approximately 2.68 million seedlings. The majority of the area planted fell within the SBSmc2 BEC subzone with a lesser amount within the SBSdk and ESSFmc.

Table 2 shows the distribution of species planted by year. You will note that, combined for all years, the average distribution is 61%, 35%, 1% and 3% for spruce, pine, balsam, and western larch respectively.

Table 7 – Species Distribution of Planted Stock

Year	*Species*					
	Sx	***Pli***	***Bl***	***Lw***	***Total***	***Pine %***
2009	72,225	48,000			120,225	**40%**
2010	52,710	73,545			126,255	**58%**
2011	175,260	96,800	27,360		299,420	**32%**
2012	211,050	49,860			260,910	**19%**
2013	405,045	210,000			615,045	**34%**
2014	139,860	69,720		22,140	231,720	**30%**
2015	139,635	100,380			240,015	**42%**
2016	194,868	97,434		32,478	337,350	**29%**
2017	215,528	107,442		29,520	352,490	**30%**
2018	34,752	81,088			115,840	**70%**
2019						
2020	277,560	119,160			396,720	**30%**
2021		77,152			77,152	**100%**
2022	85,700	47,000			132,700	**35%**
2023	94,900	35,300			130,200	**27%**
Total	**2,099,093**	**1,212,881**	**27,360**	**84,138**	**3,423,472**	**35%**
Distribution	**61%**	**35%**	**1%**	**2%**	**100%**	

In general Wetzin'kwa supports including climate change adaptation in the development of longer-term reforestation strategies but we are convinced that a prudent and measured approach to their application is critical. In particular, it is our contention that the maintenance of a robust mix of species is the most important safeguard against climate change and its impact on forest heath and ultimately on timber production.

Further, the K2P tenure is located at the western and upper elevational margins of the SBSdk in a highly transitional area with ESSFwv, ESSFmc, ICHmc1 SBSmc2 and SBSdk subzones all occurring within a span of 25km along the valley bottom (about 2.5 km perpendicular to the contour).

The combined factors of climate change and the transitional nature of the community forest suggest that we should be maintaining the full spectrum of traditional species in our stocking standards as well as including Douglas-fir and western larch to the extent provided for in the *Chief Forester Standards for Seed Use*.

The following bullets outline Wetzin'kwa's species selection strategies;

- Spruce (Sx): will continue to predominate the species distribution for plantation stock. It performs well across a wide range of site conditions and, to date, exhibits lower overall impact from damaging forest health agents than pine. Due to concerns about plantation diversity and the potential for forest health epidemics, it is our intent to keep the distribution to less than 70%.

- Pine (Pli) will continue play a significant position in the distribution of plantation stock. However due to know forest health impacts it is our intention to keep its distribution to less than 40% (based on a five year rolling average).

- Balsam (Bl) exhibits good levels of natural ingress after harvest and therefore is not required to form a significant component of our nursery growing program. In addition, for the Sub-Boreal Spruce BEC subzones, climate change trajectories seem to indicate a transition from the SBSmc2 where Bl is preferred, to SBSdk where it is not. The predominant use of Bl stock will be in ESSF subzones or in SBS subzones where, either Pli or Sx could not be planted

- Western Larch (Lw) does not have a long history in the K2P tenure, having been planted for the first time in 2014, but its use is expected to increase as we see more data indicating acceptable growth performance.

    - In SBSmc2 sites, Lw is not considered acceptable but will be used as trial species as provided for under the *Chief Forester's Standards for Seed Use*

    - In SBSdk sites, Lw distribution will be limited to a maximum 10% in the near term. If suitable growth performance is demonstrated, Lw distribution is expected to increase.

- Douglas-fir (Fd) acceptability has changed significantly in the SBSdk in the updated stocking standards and its use is expected to increase as we see more data indicating acceptable growth performance.

    - The SBSdk, within the K2P tenure, is at the western and upper elevation margins of the subzones distribution and therefore there are concerns related to its potential performance. The distribution of Fd will be limited to a maximum 10% in the near term. As growth performance is demonstrated, Fd distribution is expected to increase.

9.1.1.2 Density

Current FSP stocking standards are consistent with TSR assumptions at this time. Wetzin'kwa routinely establishes crops at densities exceeding 1400sph and has observed a significant amount of natural ingress at levels aligned with the latest TSR assumptions.

Current stand level establishment practices continue be based on the principle of risk aversion with respect to species composition and density and thus are designed to ensure the long term productivity of the forests development and health. This includes generally higher densities and greater diversity at time of crop establishment to safeguard against potential crop failures and/or poor long-term yields.

9.1.1.3 Free Growing Height and Age

As an area based tenure Wetzin'kwa motivated to having productive forests at all stages through to rotation. Under-producing stands of timber have an immediate impact on long-term timber production and its associated annual allowable harvest levels.

In the short term, Wetzin'kwa is committed to producing free-growing forests within the specified free-growing timing windows. In the mid and long-term Wetzin'kwa is committed to maintaining productive forests through the application of monitoring and treatment protocols that fall outside of the basic silviculture commitments.

9.1.2 Stocking Standards

9.1.2.1 Stocking Standards

As described in the Guidance for assessing FSP stocking standards alignment with addressing immediate and long-term forest health issues (Sutherland 2012), "FSP stocking standards must aim to maintain or enhance an economically valuable supply of commercial timber and be consistent with current TSR and forest Management assumptions".

To that end Wetzin'kwa will adopt *the Reference Guide for FDP Stocking Standards - Updated March 2019 with Climate Based species selection recommendations.*

9.1.2.1.1 Stocking Standards Exceptions

In keeping with Wetzin'kwa's position on species diversity, balsam has been changed from 'acceptable' to 'preferred' for the SBSmc2 01, 05, 06 and 08. This change is consistent with our existing stocking standards as well as Wetzin'kwa's position on species diversity.

9.1.3 Stocking Standards for Fire Management Stands

Wetzin'kwa has proposed stocking standards for WUI-HRV interface as shown on map 1 of Appendix C of the FSP. There are no approved fire management stocking standards developed yet for the SBSmc2 and SBSdk (NDT 3- frequent stand initiating events). Most stocking standards for fire management have been developed in the southern interior of BC in areas which have fire resistant species in a NDT 4 (frequent stand maintaining fires).

In preparing Wetzin'kwa's stocking standards for fire management, the following documents were reviewed and helped to establish our proposed stocking standards:

> *Guidance for Stocking Standards for Fire Management – Diane Nicholls and Robert Turner*
>
> *Fire Management Stocking Standards Guidance Document V1 February 2016*
>
> *Managing Forest Fuels Special Report Forest Practices Board June 2006*

Fire-Resilient Landscapes Discussion Paper December, 2010

Fire management/Wildland Urban Interface stocking standards for Selkirk Resource District South Columbia Nov 2018.

The proposed fire management stocking standards are there for two purposes:

1.) To promote the development of stand structural conditions that provide for reduced risk and enhance protection of values on the landbase such as human life and safety, property, infrastructure and the forest ecosystem.
2.) To develop landscape level fuel breaks that provides areas where fire behavior is reduced and provides options for fire suppression that enhance suppression success. Enhanced mitigation and fuel break effectiveness usually results from development of specific stand structural attributes that reduce fire behavior and improve fire suppression effectiveness.

The fire management stocking standards are to apply to areas treated for forest fuel reduction areas within Wetzin'kwa Community Forest Agreement (K2P) area within the Wildfire Urban Interface – High Recreation Value polygon within the SBSmc2 and SBSdk BEC subzone, as shown on map 1.

Ecological Suitability

Ecologically suitable species in the SBSmc2 and SBSdk are lodgepole pine which is moderate fire resistant species, and spruce which is low to moderate fire resistant species. Deciduous tree species such as cottonwood, aspen and birch are also ecological suitable within the SBSmc2 and SBSdk.

Western larch and Douglas fir are also ecological suitable species as part of the climate change stocking standards within the SBSdk.

Species Selection

For the fire management stocking standards in the community forest, spruce and lodgepole pine will be considered as preferred species. In the SBSdk, western larch and douglas fir will also be considered as preferred/acceptable species. Deciduous species such as cottonwood, aspen and birch will be considered as acceptable species.

Stand Densities

For the fire management stocking standards, less dense stands reduce the probability of crown fire spread and provide greater suppression capabilities and may allow crews to safely work in the area. Therefore Wetzin'kwa proposes to reduce the stand density to the following:
TSS decrease from 1200 sph to 1000 sph

MSSpa decrease from 700 sph to 500 sph
MSSp decrease from 600 sph to 500 sph
Max stem density decrease from 10,000 sph to 5000 sph for coniferous species.

Inter-tree Distance / Inter-crown distance

With reduced density, the inter-tree distance will increase and it is anticipated that will reduce the probability of crown fire.

Tree/Competition Height Ratios

With introducing cottonwood, aspen and birch as acceptable species in the fire management stocking standards, the height to brush % will not apply to acceptable species.

Partial Cut Stocking Standard Considerations

A form of partial cutting may apply to the areas treated under the fire management stocking standards. It is anticipated that within fire management areas, the majority of the areas will call for the removal of dead pine while retaining as much of the live mature canopy and understory.

Forest Succession and In-Growth including understory

It is anticipated especially in the SBSmc2, that there will likely be a lot of ingress from subalpine fir. At free-growing stands will be evaluated as per max density and will be spaced to below max density.

9.1.4 Other Initiatives Related to Reforestation and Climate Change

Wetzinkwa Community Forest has been involved with the Bulkley Valley Research Centre's program involving the restoration of endangered whitebark pine. Two different plantings were completed in the community forest.

Wetzinkwa Community Forest Corporation is concerned with global climate change impacts. The management team and board of directors have spent considerable effort in working towards better understanding of Wetzin'kwa's potential impacts on climate change. Wetzinkwa has drafted a document titled "Carbon Goals and Strategies for the Wetzin'kwa Community Forest Corporation". This document is work in progress document and changes are anticipated as new information comes available. A copy of this document is included in Appendix G.

As part of the above initiative, Wetzin'kwa is working to reduce the amount of annual slash-burning taking place. Dead, dry merchantable timber is being shipped to Seaton Forest Products and starting mid-winter 2019, harvest residue material has been shipped

to the pellet plant. There are operational challenges to overcome but it is definitively reducing the amount of slash Wetzin'kwa is burning annually.

10.0 Other topics from the Skeena Stikine Resource District Manager FSP Expectations Letter

10.1 First Nations, Stakeholders and Public Engagement

Wetzin'kwa Community Forest Corporation is committed to communicating and engaging with the public, stakeholders and First Nations that may be directly affected by Wetzin'kwa's forestry activities. Wetzin'kwa's communication and engagement of the public, stakeholders and First Nations is on an ongoing-basis. Wetzin'kwa's communication and enagagement strategies are as follows:

1.) Resource User Group meetings. Wetzin'kwa on an annual basis has a meeting with the various recreation user and stakeholder groups within the community forest. It is a meeting where Wetzin'kwa shares their development plans for their forestry activities. At the same time this meeting lets the various user groups and/or stakeholders ask questions regarding operations and share with us and other groups of any plans they are implementing.
2.) Wetzin'kwa Community Forest Annual General Meeting. This meeting is on an annual basis open to the general public. The meeting is rotated on an annual basis between the communities of Smithers, Telkwa and Witset. At this meeting, the public has the opportunity to voice any of their concerns.
3.) Wetzin'kwa Community Forest Community Grant Program. Every year for the past several years, Wetzin'kwa has held a public display on Main Street in Smithers to award money to the community grant program recipients. This provides opportunity for the public to engage with both management and board of directors of Wetzin'kwa.
4.) Wetzin'kwa participates in the Bulkley Web Map Service with all the other major licencees in the Bulkley TSA. It is a web-based portal in which all licencees show their proposed development information, which the public, First nations and stakeholders can view from their computers. Information is updated approximately every six months (June and December).
5.) For range tenure holder, guiding tenure holder and trapline tenure holders, Wetzin'kwa Community Forest sent out letters at the beginning of the 60 day Forest Stewardship Plan public review and comment period regarding the proposed Forest Stewardship Plan. During the development stage of the cutting permit, a letter and a map of the proposed layout are sent to the affected tenure holders so they can provide feedback.
6.) For recreation tenure holders (BV Cross-Country Ski Club, BV Backpackers, Smithers Mountain Bike Association and Smithers Snowmobile Association), Wetzin'kwa Community Forest sent out letters at the beginning of the 60 day Forest Stewardship Plan public review and comment period regarding the proposed Forest Stewardship Plan. If harvesting is proposed within a recreation

site or along proposed trail, the affected recreation user group will be notified of specific development near their trail or site. Also the local recreation officer of the Recreation Site and Trail BC will be notified as a FRR authorization (section 16) will be required.

7.) For landowners adjacent to the community forest, provisions were made in the FSP to engage them in the planning process if we proposed road construction or timber harvesting within 150 meters of their property.
8.) For water licence holders, which have their watershed within the community forest, provisions were made in the FSP to notify them 48 hours prior to any road construction and deactivation within the watershed.
9.) As part of the FSP information sharing process involving the First Nations, a letter and a copy of the review and comment FSP was sent to the Office of the Westsuwet'en as well as the Witset First Nation. Provisions were made in the FSP to communicate with the First Nations regarding cultural heritage resources (CHR) found along roads or cutblocks during road and cutblock development as well as if a previously unidentified CHR is identified during forestry activities. As part of the cutting permit submission process, proposed blocks and road as well as CHR evaluation reports are sent to the Office of the Wetsuwet'en.
10.) On a continual basis, Wetzin'kwa Community Forest has a website as well as a Facebook page, where both sites allow the public to give us feedback.
11.) On a continuous basis, the doors at Wetzin'kwa Community Forest are open at Silvicon Services Inc, 3560 Victoria Drive in which the public can communicate concerns or engage ideas to management.

10.2 Northern Goshawk

At this time, there are is one known goshawk nest within the community forest. If more nesting sites are discovered within the community forest these sites will be brought forward to the Northern Goshawk Team (Frank Doyle and Mike Buirs) as they are in process of developing management guidelines and a co-location process for goshawk territories. Until these management guidelines and co-location process for goshawk territories are in place, WCFC will follow the best management practices of Table 7 of *A Scientific Basis for managing Northern Goshawk Breeding Areas in the Interior of BC: Best Management Practices (Forrex Series 29, 2012)* to the extent practicable.

The Northern Goshawk Team is developing management guidelines and a checklist for redesigning Goshawk Territories using a co-location process as well as looking at how co-location might mitigate Timber Harvesting Landbase impacts. Wetzin'kwa is a willing participant in this process and is looking forward to the management guidelines within the two proposed goshawk territories within the community forest.

Appendix A: K2P Management Plan

Appendix B: MOU with Bulkley Valley Cross-Country Ski Club

Appendix C: MOU with Smithers Mountain Bike Association

Appendix D: Referral Distribution List Referral/Letters

Appendix E: Letters received from Review and Comment Period

Appendix F: Responses to Letters received from Review and Comment Period

Appendix G: "Carbon Goals and Strategies for the Wetzin'kwa Community Forest Corporation"

Appendix H: Wetzin'kwa Migratory Bird Policy (Draft)

FOREST STEWARDSHIP PLAN
MAP #1
2024 - 2029

WETZIN'KWA COMMUNITY FOREST CORPORATION

093L.083 093L.084 093L.085 093L.073 093L.074 093L.075 093L.063 093L.064 093L.065

TR0609T039 TR0609T032 TR0609T038 TR0609T031 TR0608T019 TR0609T029 TR0609T037 TR0609T028 TR0608T017 TR0609T026

601008 601057 601044

RAN075294

Legend

- Water Rights Licences
- Streams
- R16534 Roads
- Roads
- Proposed Roads
- Pipe and Powerlines
- Railway
- Recreation Trails
- Wetlands
- Lakes
- Rivers
- VRI Age Class 1
- WCF Boundary
- Range Tenure
- Guides and Outfitters - 601057
- Trappers Licences
- Recreation Site Poly
- Recreation Emphasis Area
- Community Watersheds
- WUI- High Recreation Values
- Mapsheet Grid 20K

Harvested Blocks

- Approved Blocks
- Harvested Blocks
- Free Growing Blocks

Proposed Blocks and WRR Treatment

- Block
- Treatment Area
- Wildfire Risk Reduction
- WTRA

Terrain Stability

- IV
- V

N

Scale: 1:50 000

0 ½ 1 2 3 4 5 Km

Contour Interval: 20m

Maps Prepared by:

Date: April 2020

SILVICON SERVICES INC.

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FOREST STEWARDSHIP PLAN
MAP #2
2024 - 2029

WETZIN'KWA COMMUNITY FOREST CORPORATION

093L.083 093L.084 093L.085 093L.073 093L.074 093L.075 093L.063 093L.064 093L.065

Kitseguecla Trout Creek Copper Reiseter Bulkley Telkwa

Silvern Lakes RMZ Glacier Gulch RMZ Hudson Bay Mountain RMZ Ski Smithers RMZ Copper River RMZ Community Forest RMZ

U-6-007

ICH mc 1 ICH mc 2 ESSFwvp ESSFwv ESSFmcp ESSFmc BAFAun SBS dk SBS mc 2

Legend

- Streams
- Roads
- Pipe and Powerlines
- Railway
- Recreation Trails
- VRI Age Class 1
- Community Forest Boundary
- BEC Zones
- Resource Management Zones
- Landscape Units
- Toboggan Area
- Wetlands
- Lakes
- Rivers
- Recreation Site
- Kathlyn Ck. Community Watershed Bdy
- Moose
- Moose and Mule Deer
- Mountain Goat Buffer- UWR# U-6-007
- Mountain Goat- UWR# U-6-007
- Parks and Protected Areas
- Agriculture/Wildlife Zones
- Whitebark Pine
- Mapsheet Grid 20K

Legal Planning Objectives

- Core Ecosystems
- Enhanced Timber Development Areas
- Landscape Corridors
- Fisheries Sensitive Watersheds

N

Scale: 1:50 000

0 ½ 1 2 3 4 5 Km

Contour Interval: 20m

Maps Prepared by:

Date: April 2020

SILVICON SERVICES INC.

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FOREST STEWARDSHIP PLAN
MAP #3
2024 - 2029

WETZIN'KWA COMMUNITY FOREST CORPORATION

Legend

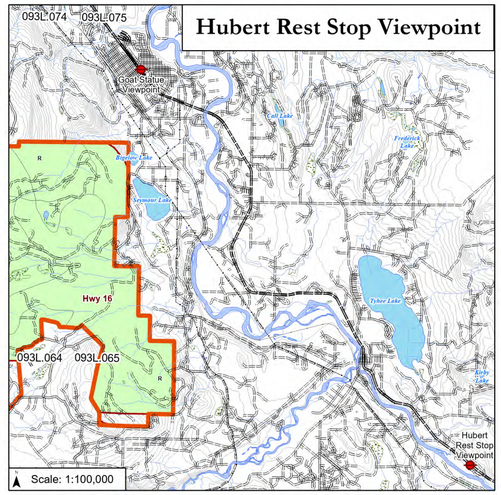
- Viewpoints
- Highway 16
- Roads
- Pipe and Powerlines
- Railway
- Streams
- VRI Age Class 1
- Wetlands
- Lakes
- Rivers
- Community Forest Boundary
- Mapsheet Grid 20K

Visual Quality Objectives

- VQO Boundary
- Modification - M
- Preservation - P
- Partial Retention - PR
- Retention- R

Viewpoints

Mc ..... McDonnel Lake
D ..... Dennis Lake
A ..... Aldrich Lake
S ..... Ski Hill
Hwy 16 ..... Hubert Rest Stop to Adams Igloo



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Scale: 1:50 000

0 ½ 1 2 3 4 5 Km

Contour Interval: 20m

Maps Prepared by:

Date: April 2020

SILVICON SERVICES INC.

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