ALBERNI VALLEY COMMUNITY FOREST CORPORATION

Alberni Valley Community Forest

Forest Stewardship Plan

Extension 2016-2021 DRAFT





April 4, 2016

Prepared by:



l certify that this work fulfills accepted standards and that I did personally supervise this work

March 30, 2016

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I certify that this draft Forest Stewardship Plan extension is authorized on behalf of the Alberni Valley Community Forest Corporation.

April 4, 2016

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1.0 INTRODUCTION

This Forest Stewardship Plan has been prepared for the Alberni Valley Community Forest Licence (AVCF), operated by the Alberni Valley Community Forest Corporation (AVCFC). Formerly a part of TFL 44, the AVCF is located within the Sproat Landscape Unit (LU) west of Port Alberni, and is comprised two operating areas known as `Sproat` and `Taylor`. (Figure 1). The Alberni Valley Community Forest (AVCF) has a total land base of 6378 ha and an annual allowable cut of 18,156m³.

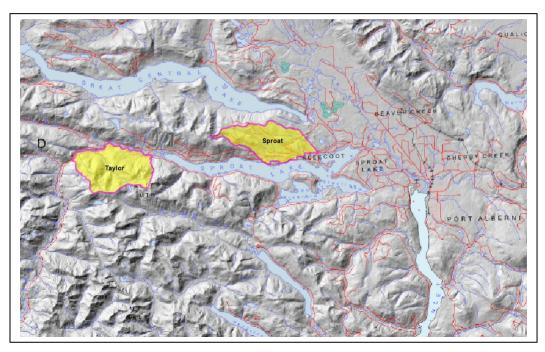


Figure 1: Location of Alberni Valley Community Forest

The Forest Stewardship Plan (FSP) is a requirement of the *Forest Range and Practices Act (2004)*. The FSP is a landscape level plan, which is focused on establishing strategies and results for conserving and protecting timber and non-timber resource values for forest management activities over the life of the plan. The FSP states measurable, enforceable results and strategies that must be consistent with objectives set by government for a variety of forest values (e.g. fish, water, biodiversity cultural and heritage resources, etc). The FSP is a plan, that shows how the AVCFC will manage all stated government objectives from a site-specific level to the landscape level over the life of the plan. Forest Stewardship Plans are intended to allow tenure holders to be responsive to changing market conditions and to allow forest professionals to be innovative in applying management strategies to meet and exceed environmental standards in a manner specific to their operating area.

The FSP takes direction from the Vancouver Island Land Use Plan (VILUP), the Forest and Range Practices Act (FRPA), the Land Act (LA), the Government Actions Regulation (GAR), the Forest Planning and Practices Regulation (FPPR),

grandfathered sections of the Forest Practices Code Act of British Columbia (FPC), and other pertinent legislation that governs forest practices in British Columbia. The FSP has also considered the objectives, results and strategies stated in the approved Management Plan for the Alberni Valley Community Forest (which includes references to the Hupacasath First Nation Land Use Plan) and incorporates these where applicable.

The FSP is intended to be a succinct document stating the management objectives for the resources present in the operating areas or Forest Development Units (FDU) as they are called in the FSP. The FSP is not intended to state methodology or give direction regarding how the management objectives are to be met; that is the role of the AVCFC and their forest professionals to decide. The FSP results and strategies must be consistent with government objectives for the management of all resources, and they must be measurable and verifiable.

Throughout the FSP there are several references to the Forest Planning and Practices Regulation (FPPR) and the sections therein that are relevant to the FSP document. The FPPR can be viewed at the BC Laws website:

http://www.bclaws.ca/civix/document/id/complete/statreg/14_2004

There are also references to higher-level plans, government orders and related documents applicable to the FSP. For more information about objectives set by government and links to this related information visit the South Island Forest District `Objectives Matrix` which can be found at the South Island Natural Resource District website:

http://www.for.gov.bc.ca/dsi/Stewardship/Objectives Matrix.htm

The FSP is the primary referral process, together with the Community Forest Management Plan, for increasing community awareness and providing a notification and engagement process for the public, First Nations, and government agencies as to the future location of Forest Development Units (FDU's) and of the intended results and strategies.

This draft FSP Extension version includes a variety of editorial and content updates described in the document changes summary. These updates include updates and clarifications consistent with the Chief Foresters Guidance on the Replacement of Forest Stewardship Plans and designed to improve the measurability of results and verifiability of strategies.

1.1 Acronyms used in this FSP

In this forest stewardship plan:

"AVCF"	means Alberni Valley Community Forest Agreement.
"AVCFC"	means the Alberni Valley Community Forest Corporation.
"FDU"	means a forest development unit.
"FPPR"	means the Forest Planning and Practices Regulation B.C. Reg 14/2004.
"FRPA"	means the Forest and Range Practices Act.
"FSP"	means this forest stewardship plan.

"MOE" means the Ministry of Environment.

"MFLNRO" means the Ministry of Forests, Lands and Natural

Resource Operations, (formerly the Ministry of Forests and

Range, (MOFR).)

"OGMA" means old growth management area.

"SINRD" means the South Island Natural Resource District.

"VILUP" means Vancouver Island Land Use Plan Higher Level Plan

Order

"VQO" means visual quality objective.

2.0 DATE OF SUBMISSION

The date of submission of this draft Forest Stewardship Plan (FSP) extension is April 5, 2016. A final submission version will be submitted for approval subsequent to MFLNRO review and First Nations Consultation.

3.0 TERM OF THE FSP AND COMMENCEMENT

The term of this plan will be 5 years from the date specified in the extension approval.

4.0 FSP MAP

The area to which this Forest Stewardship Plan applies, including the boundaries of the FDU's and all designations in effect, are indicated on the 1:20,000 scale FSP maps located in Appendix 3. These have been updated for the 2016 extension submission.

4.1 Forest Development Units

Forest Development Units (FDU's) identify areas of planned development activities for the next five years that will have a common set if objectives, results and strategies. FDU's are general in nature and do not reflect specific development plans (i.e. roads and blocks) for a particular FDU.

There are two FDU's included in this plan (based on the two operating areas) and they cover the entire community forest licence area (both operable and inoperable areas). Both FDU's are located within the Sproat Landscape Unit. The Taylor FDU is located within the Strathcona-Taylor Special Management Zone (SMZ # 17).

Table 1: Forest Development Units

FDU		Area (ha)
A (Sproat)		3000
B (Taylor)		3378
	Total	6378

4.2 Designations in Effect at Date of Submission of this FSP

The FSP maps identify the designations and requirements described in FPPR S.14(3) that apply and were in effect on the Date of Submission. These designations are listed below:

Table 2: FPPR 14(3) Designations in effect for AVCF FSP

FPPR 14 (3)(e)	LU	Date Designated
Scenic Areas		
2 (Highway 4 from Parksville to Ucluelet and Tofino) 3 (Sproat lake)	Sproat	November 13, 1998 Established in GAR order effective December 15, 2005.
FPPR 14 (3)(g)	LU	Date Designated
Community Watershed		
Sproat Community Watershed	Sproat	June 15, 1995
FPPR 14 (3)(h)	LU	Date Designated
Old Growth Management Area		
OGMAs as per Sproat Landscape Unit Plan	Sproat	July 18, 2005

4.3 Areas to which FRPA S196(1) or (2) or FPPR S.110 Applies

There are no areas to which FRPA Section 196(1) or (2) apply within this FSP's FDUs.

4.4 Areas within FDUs Subject to a RP but not subject to this FSP

The FSP maps identify the areas that are within the outer boundaries of the FDUs and are subject to an existing road permit (RP) but not to this FSP as per FPPR S.14(3)(k).

5.0 RESULTS, STRATEGIES AND MEASURES

Landscape level objectives for the Sproat Landscape Unit apply to the FSP areas. The Vancouver Island Land Use Plan (VILUP) Higher Level Plan Order includes several objectives related to resource management zones that apply to the FSP area. The Forest Planning and Practices Regulation (FPPR) identify government objectives that must be defined in an FSP. The Government Actions Regulation (GAR) lists measures that may be applicable to an area in an FSP. These are listed in tables 3 and 4 along with their applicability to the AVCF.

Table 3: Higher Level Plan Order and GAR Objectives and their Relevance to the AVCF

Category of Objective or Measure	Relevance to AVCF	FSP Table (section)
From Order to Establish A Landscape Unit a Landscape Unit, Legal Objectives	nd Objectives: Sproat La	ike
Objective 1: Old Growth Management Areas	Sproat + Taylor FDU	5.1.1a
Objective 2: Wildlife Tree Retention	Sproat + Taylor FDU	5.1.1b
Objective 3:Special Management Zone 17	Taylor FDU	5.1.1c
From Vancouver Island Land Use Plan Highe	er Level Plan Order (sect	ion II A)
Objective 1. Sustain Forest Ecosystem Structure	and Function in SMZ (17)	
a) Creating or maintaining stand structures and forest attributes associated with mature and old forests	Taylor FDU	5.1.2a
b) Retaining within cutblocks structural forest attributes and elements with important biodiversity functions	Taylor FDU	5.1.2b
c) Applying a variety of silvicultural systems, patch size and patch shapes across the zone subject to maximum cutblock sizes	Taylor FDU	5.1.2c
Objective 2.		
Larger cutblocks may be approved if harvesting is being carried out to recover timber that was damaged by fire, insects, wind or other similar events, cutblock to incorporate structural characteristics of natural disturbances.	Taylor FDU	5.2.1d
Order by Government Action Regulation		
SIFD - Visual Quality Objectives GAR Order (12.15.2005) and Amendment 12.30.2011) for established scenic areas	Sproat + Taylor FDU	5.3.1
Karst Resource Features for the South Island Forest District (12.11.2009)	Sproat + Taylor FDU	5.3.2

Table 4: FPPR objectives and their relevance to the AVCF

Category of Objective or Measure	Legislation	Relevance to AVCF	FDU	FSP Table (section)
Objectives from Forest	Planning and P	ractices Regulation		
Soils	FPPR s.5	Practice requirements are indicated	All	5.2.1
Timber (including forest health)	FPPR s.6	Strategies and results not required (FPPR 12.8)	-	N A
Wildlife	FPPR s.7	Results and Strategies required for Marbled Murrelet	All	5.2.2
Water, fish, wildlife and biodiversity within riparian areas	FPPR s.8	Practice requirements are indicated and strategies and results developed	All	5.2.3
Fish habitat in fisheries sensitive watersheds	FPPR s.8.1	No designated fisheries sensitive watersheds within plan area therefore no strategies or results developed.	All	N A
Water in Community Watersheds	FPPR 8.2	Practice requirements are indicated and strategies and results developed	All	5.2.4
Wildlife and biodiversity – landscape level	FPPR s.9	Practice requirements are indicated	All	5.2.5
Wildlife and biodiversity – stand level	FPPR s.9.1	Practice requirements are indicated	All	5.2.6
Visual Quality	FPPR s.9.2	Superseded by GAR to establish VQO for identified scenic areas	All	5.3.1
Cultural Heritage Resources	FPPR s.10	Strategies and results developed	All	5.2.7

Objectives, strategies and results have been developed for the AVCF. They are organised into tables on the following pages.

5.1 Land Use Objectives

5.1.1 Order Establishing Sproat Lake Landscape Unit and Objectives

5.1.1a Sproat Lake Landscape Unit Objective 1

5.1.1a		lishing Sproat Lake Unit and Objectives	Objective 1: Old Growth Management Areas
Objective	1. Maintenan	nce or recruitment of old gr	owth forests.
	mana Lake	igement areas (OGMAs), a	rests in established old growth as shown on the attached Sproat d June 30, 2005, subject to
	2. Permissibi	le Activities.	
	a) Minor	OGMA boundary adjustme	ents for operational reasons:
	and re	oad or bridge construction, or greater in size may be	t does not affect more than 10 per
	ii) iii)	values beyond or adjace practicable option for roassuitable OGMA replacer.	ion is required to access resource ent to the OGMA and no other ad or bridge location exists, and ment forest of at least equivalent er (in order or priority) directly
		adjacent to, or in the sar the adjusted OGMA.	ne variant and landscape unit as
	area	the licensee may permane	Iternative to finding replacement ently deactivate and rehabilitate a ithin four years after construction.
	b) Other	permissible activities:	
	i)	Boundary pruning of tree	es to improve wind firmness.
	ii)	infestations or diseases forested areas outside o	event the spread of insect that pose a significant threat to of OGMAs. Salvage within OGMAs that retains as many old growth ible.
	iii)	brushing and clearing or	on, removal of danger trees, or n existing roads under active f-way for safety purposes.
	iv)	danger trees (except hig cutblock boundaries or v	nce, tailhold anchor trees, or th value wildlife trees) along vithin the right of way on new to meet safety requirements
	v)	Construction of rock qua	arries and gravel pits under

authority of forest tenure where the development will be located immediately adjacent to existing roads under tenure and will affect the OGMA by less than 0.5 ha in total.

vi) Intrusions, other than those specified that affect an OGMA by less than 0.5 hectares in total.

OGMA replacement forest is required as a result of activities under 2b) above, if the total net change to the OGMA exceeds 0.5 ha in size. Replacement forest must be biologically suitable, of at least equivalent quantity and situated (in order of priority), either immediately adjacent to the existing OGMA, or in the same variant and landscape unit as the existing OGMA.

Result or Strategy

- 1. In this result or strategy, "suitable OGMA replacement" is forest that is biologically suitable and is of at least equivalent quantity and is identified either (in order of priority) directly adjacent to the existing OGMA, or in the same variant and landscape unit as the adjusted OGMA.
- The AVCFC will not carry out road construction or timber harvesting within Old Growth Management Areas (OGMAs) delineated as part of the Sproat Lake Landscape Unit Plan established July 18, 2005 except under the following circumstances:
 - a. to accommodate operational requirements for timber harvesting and road or bridge construction, boundaries of OGMAs that are 10 ha or greater in size may be adjusted provided that:
 - a boundary adjustment does not affect more than 10% of the area of the OGMA,
 - road or bridge construction is required to access resource values beyond or adjacent to the OGMA and no other practicable option exists, and
 - iii. suitable replacement OGMA is identified.
 - timber harvesting to prevent the spread of insect infestations or diseases that pose a significant threat to forested areas outside of OGMAs,
 - c. salvage provided that it is done in a manner that retains as many old growth forest attributes as practicable.
 - d. removal of danger trees, or brushing and clearing within the rightof-way on existing roads for safety purposes,
 - e. felling of trees for guyline clearance, tailhold anchor trees, (except high value wildlife trees) or danger trees along cutblock boundaries or within the right-of-way on new road/bridge alignments to meet safety requirements,
 - f. construction of rock quarries and gravel pits where development will be located immediately adjacent to existing roads and will affect the OGMA by less than 0.5 ha in total, or
 - g. intrusions that affect an OGMA by less than 0.5 ha in total.
- 3. The AVCFC may carry out boundary pruning of trees to improve wind

firmness within an OGMA

4. Suitable OGMA replacement forest will be identified as a result of activities under S. 2 b), c), d), or e), of this strategy where the total net change to an OGMA exceeds 0.5 ha in size.

Objectives, Strategies and Results apply to these Forest Development Units

Sproat √

Taylor √

5.1.1b Sproat Lake Landscape Unit Objective 2

5.1.1b	Order Establishing Sproat Lake Landscape Unit and Objectives	Objective 2
		Wildlife Tree Retention

Objective

Maintain stand-level structural diversity, by retaining wildlife tree patches (WTPs).

The holder of an agreement under the Forest Act, except a woodlot licence agreement, who completes harvesting in one or more cutblocks, except minor salvage cutblocks, located within the LU during any 60 month period beginning on January 1 of any calendar year following the establishment of this objective, must ensure that, at the end of the 60 month period, the total area covered by wildlife tree retention areas that relate to the cutblocks, meets or exceeds the percent of the total area of the cutblocks by subzone presented in Table 1.

In addition:

- 1. WTPs must be well distributed across the BEC subzone
- 2. When designated at the operational site plan level, WTPs must be located within or immediately adjacent to a cutblock.
- 3. No timber harvesting, including singletree selection is to occur within WTPs, except as noted in 4 below.
- 4. Salvage of windthrown timber is permitted within WTPs where windthrow impacts 25% to 50% of the dominant or co-dominant stems. Salvage of windthrown timber and harvesting of remaining standing stems is permitted within WTPs where windthrow exceeds 50% of the dominant or co-dominant stems; or where forest health issues pose a significant threat to areas outside the WTP. Where salvage/harvesting is planned and authorized, suitable replacement WTP of at least equivalent quantity must be identified concurrently to achieve the retention target.
- 5. WTPs should include, if present, remnant old-growth patches and live or dead veteran trees (except danger trees).
- 6. WTPs must include representative larger trees for the stand (dbh>average operational cruise) and any moderate to high value wildlife trees if available (excluding danger trees).
- 7. BEC subzones and variants will be determined by operational site

plan information.

8. In WTPs with a likelihood of windthrow, pruning and/or topping may be carried out to maintain the integrity of the WTP.

Table 1. Wildlife Tree Retention by BEC subzone in the Sproat Lake Landscape Unit.

Biogeoclimatic Subzone	% WTP requirement
CWH mm (Coastal Western Hemlock, moist maritime)	7
CWH vm (Coastal Western Hemlock, very wet maritime)	5
CWH xm (Coastal Western Hemlock, very dry maritime)	12
MH mm (Mountain Hemlock, moist maritime)	0

Result or Strategy

- In this result or strategy "wildlife tree patches (WTP)" is the same as "wildlife tree retention areas (WTR)" which is defined in FPPR (Part 1, 1) as an area occupied by wildlife trees that is located in a cutblock, in an area that is contiguous to a cutblock, or in an area that is sufficiently close to the cutblock that the wildlife trees could directly impact on, or be directly impacted by, a forest practice carried out in the cutblock.
- 2. When harvesting is completed in one or more cutblocks, except minor salvage cutblocks, during any 5 year period beginning on January 1 of any calendar year, the AVCFC will ensure that, at the end of the 5 year period, the total area covered by wildlife tree retention areas that relates to the cutblocks meets or exceeds the percent of the total area of the cutblocks by subzone presented in Table 1 of the objective above.
- 3. The AVCF will ensure that:
 - a. WTPs are distributed across the BEC subzone;
 - b. WTPs are located within or immediately adjacent to a cutblock when designated at the operational site plan level;
 - c. no timber harvesting, including single tree selection, is allowed to occur within a WTP except:
 - i. salvage of windthrown timber within WTPs where windthrow impacts 25% to 50% of the dominant or co-dominant stems,
 - ii. salvage of windthrown timber and harvesting of remaining standing stems within WTPs where windthrow exceeds 50% of the dominant or co-dominant stems, or
 - iii. where forest health issues pose a significant threat to areas outside the WTP;
 - d. Further to c (ii),(iii) where salvage/harvesting is planned, a suitable replacement WTP of at least equivalent quality will be identified concurrently to achieve the retention target.
 - e. WTPs include, if present, remnant old-growth patches and live

	f. g.	or dead veteran trees (except danger trees); WTPs include representative larger trees (dbh > ave operational cruise) for the stand and any moderate wildlife trees if available (except danger trees); BEC subzones and variants will be determined by o site plan information;	to high value
	h.	WTPs with a high likelihood of windthrow may be propped to maintain the integrity of the WTP.	uned or
Objectives, Strategies and Results apply to these Forest Development Units: Sproat √ Taylor √			

5.1.1c Sproat Lake Landscape Unit Objective 3

5.1.1c	Order Establishing Sproat Lake Landscape Unit and Objectives Objective 3: Special Management Zone 17
Objective	Sustain forest ecosystem structure and function within the portion of Special Management Zone 17 located in the Sproat Lake Landscape Unit, by retaining mature and old forests (i.e. > 80 years of age) on an area covering at least 25 per cent of the total forested area of the SMZ portion located within the landscape unit.
Description	The Taylor FDU is located within SMZ 17 forming a portion (28%) of the overall area of SMZ17. The AVCFC is responsible only for the portions of the SMZ within the FSP.
Result or	1. In this result or strategy:
Strategy	"areas" means the net area to be reforested plus the area occupied by Permanent Access Structures;
	"non-contributing landbase" means the non-contributing landbase identified in the Regional Land Use Planning database (RLUPS version 3.2 August 15, 2005, (scrub out)).
	"spatially defined areas" are areas of mature or older forest that can be mapped at a 1:20 000 scale.
	"mature and old" is forest > 80 years of age.
	"old forest" is forest > 250 years of age.
	The AVCFC will participate in landscape unit planning processes for SMZ 17.
	3. During the term of this plan, if at least 25% of the forested landbase within the portion of Special Management Zone 17 within the Sproat Lake Landscape Unit is not spatially defined as being mature or old, the AVCFC, will not carry out or authorize timber harvesting or road construction in:
	 a. old forest within the non-contributing landbase of that special management zone, and

- b. mature forest structure in the non-contributing landbase, and
- 4. Within the portion of SMZ 17 within the Sproat LU, the AVCFC may carry out timber harvesting or road construction if doing so will not result in the amount of old or mature forested area to drop below 25%.

Objectives, Strategies and Results apply to these Forest Development Units: Taylor $\sqrt{}$

5.1.2 Vancouver Island Land Use Plan Higher Level Plan Order

The Vancouver Island Land Use Plan, Higher Level Plan (VIHLP) Order (effective December 1, 2000) establishes Resource Management Zones and Resource Management Zone Objectives within the area covered by the Vancouver Island Land Use Plan (VILUP). The applicable Higher Level Plan Order Objectives for the Special Management Zones (SMZs) are listed in the following table and described below.

Table 5: VILUP Special Management Zones

Special Management Zone	Applicable HLP Objective	FDU
SMZ 17 – Strathcona-Taylor	1, 2	Taylor

5.1.2a VILUP HLP II A Objective 1a

5.1.2a	Vancouver Island Land Use Plan Section II A Objective 1a Higher Level Plan Order
Objective	1. Sustain forest ecosystem structure and function in SMZs, by:
	a. Creating or maintaining stand structures and forest attributes associated with mature ¹ and old ² forests subject to the following:
	 The target for mature seral forest should range from one quarter to one third of the forested area of each SMZ³; and
	ii. In the SMZs where the area of mature forest is currently less than the mature target range referred to in (i) above, the target amount of mature forest must be in place within 50 years.
Result or	Sustain forest ecosystem structure and function in SMZ 17 as

¹ The mature seral forest is defined as generally 80 to 120 years old or older, depending on species and site conditions. The structure of mature seral forests generally includes canopies that vary vertically or horizontally, or both. The age and structure of the mature seral stage will vary significantly by forest type and from one biogeoclimatic zone to another.

² The old seral forest is defined as generally greater than 250 years old, containing live and dead (downed and standing) trees of various sizes, including large diameter trees, and of various tree species, including broad-leaved trees. The structure of old seral forest varies significantly by forest type and from one biogeoclimatic zone to another.

³ Mature seral targets will be established through landscape unit planning. See transition provisions under III.

Strategy	per VILUP Section II A Objective 1a). Manage accordir strategy for Objective 3 of the Sproat Lake Landscape Order, included in section 5.1.1 of this FSP.	•
Objectives, St Units	trategies and Results apply to these Forest Development	Taylor √

5.1.2b VILUP HLP II A Objective 1b

5.1.2b	Vancouver Island Land Use Plan Section II A Objective 1 b Higher Level Plan Order	
Objective	1. Sustain forest ecosystem structure and function in SMZs by:	
	 b. Retaining, within cutblocks⁴, structural forest attributes and elements with important biodiversity functions⁵. 	
Result or Strategy	 In this result or strategy, 'structural forest attributes with important biodiversity functions' includes but is not limited to snags, wildlife trees and downed logs. 	
	2. Within areas designated as SMZ 17, the AVCFC will:	
	 a. design cutblocks in a manner that is consistent with retaining structural forest attributes and elements with important biodiversity functions that exist in each of the following: 	
	i. wildlife tree retention areas;	
	ii. no-work zones;	
	iii. riparian management areas;	
	iv. other potential leave areas,	
	that are generally within cutblock boundaries, and	
	 carry out forest practices only if the forest practices are consistent with the design for the cutblock referred to in paragraph (a), and 	
	 c. enter into a cutting permit only if the permit is consistent with the design for the cutblock referred to in paragraph (a) 	
Objectives, St Units	trategies and Results apply to these Forest Development Taylor $\sqrt{}$	

Within cutblocks: generally means non-contiguous with cutblock boundaries.
 This includes, but is not limited to snags, wildlife trees, downed logs.

5.1.2c VILUP HLP IIA Objective 1c

5.1.2c	Vancouver Island Land Use Plan Section IIA Objective 1 c Higher Level Plan Order
Objective	 Sustain forest ecosystem structure and function in SMZs by: Applying a variety of silvicultural systems, patch sizes and patch shapes across the zone, subject to a maximum cutblock size of 5 ha if clearcut, clearcut with reserves or seed tree silvicultural systems are applied, and 40 ha if shelterwood, selection or retention silvicultural systems are applied⁶.
Result or	2. Within areas designated as SMZ 17, the AVCFC will:
Strategy	a. design cutblocks in a manner that is consistent with:
	 i. establishing a variety of silvicultural systems and patch sizes and shapes across the SMZ, and
	ii. for shelterwood, selection, or retention silvicultural systems:
	 A. maintaining varying levels of retention within the cutblock based on a consideration of the site-specific site conditions and the forest values, and
	B. limiting the Net Area to be Reforested (NAR) to 40 hectares except as provided in the result or strategy for HLP Objective 2, and
	iii. for clear-cut, clear-cut with reserves or seed tree silvicultural systems, limiting the NAR to 5 hectares except as provided in the result or strategy for HLP Objective 2,and
	 carry out forest practices only if the forest practices are consistent with the design for the cutblock referred to in paragraph a), and
	 enter into a cutting permit only if the permit is consistent with the design for the cutblock referred to in paragraph a).
Objectives, St Units	trategies and Results apply to these Forest Development Taylor $\sqrt{}$

⁶ Maximum cutblock sizes refer to net are to be reforested.

5.1.2d VILUP HLP Objective 2

5.1.2d	Vancouver Island Land Use Plan HLP Objective 2 Higher Level Plan Order	
Objective	2. Despite subsection 1(c) above, cutblocks larger than 5 or 40 ha as the case may be, may be approved if harvesting is being carried out to recover timber that was damaged by fire, insects, wind or other similar events and wherever possible, the cutblock incorporates structural characteristics of natural disturbances.	
Result or Strategy	If, within areas designated as SMZ 17, timber harvesting is to be carried out in a cutblock to recover timber damaged by fire, insects, wind or other similar events, the AVCFC may design the cutblock to have a NAR that exceeds	
	 a. 40 hectares for shelterwood, selection, or retention silvicultural systems, and 	
	 5 hectares for clear-cut, clear-cut with reserves or seed tree silvicultural systems 	
	provided that the design incorporates structural characteristics of natural disturbances into the cutblock where safe, and practicable.	
Objectives, S Units	trategies and Results apply to these Forest Development Taylor $\sqrt{}$	

5.2 Objectives prescribed under FRPA S.149

5.2.1 Objectives set by government for soils [FPPR s.5]

5.2.1	Objectives set by government for wildlife [FPPR S.5]	Soils
Objective	The objective set by government for soils is, without unduly reducing the supply of timber from British Columbia's forests, to conserve the productivity and the hydrologic function of soils.	
Result or Strategy	In accordance with FPPR s. 12.1(1), the AVCFC is exempt from the requirement to specify intended results and strategies set out in FPPR S. 5.	
Practice Requirements	The AVCFC will comply with FPPR S.35 (soil disturbance limits) and s.36 (permanent access structure limits).	
Objectives, Strategies and Results apply to these Forest Development		
Units		Taylor √

5.2.2 Wildlife

5.2.2	Objectives set by government for wildlife [FPPR S.7] Wildlife
Objective	The objective set by government for wildlife is, without unduly reducing the supply of timber from British Columbia's forests, to conserve sufficient wildlife habitat in terms of amount of area, distribution of areas and attributes of those areas, for
	a. the survival of species at risk,
	b. the survival of regionally important wildlife, and
	c. the winter survival of specified ungulate species.
	2. A person required to prepare a forest stewardship plan must specify a result or a strategy in respect of the objective stated under subsection (1) only if the minister responsible for the Wildlife Act gives notice to the person of the applicable
	a. species referred to in subsection (1), and
	 b. indicators of the amount, distribution and attributes of wildlife habitat described in subsection (1).
	3. If satisfied that the objective set out in subsection (1) is addressed, in whole or in part, by an objective in relation to a wildlife habitat area or an ungulate winter range, a general wildlife measure, or a wildlife habitat feature, the minister responsible for the Wildlife Act must exempt a person from the obligation to specify a result or strategy in relation to the objective set out in subsection (1) to the extent that the objective is already addressed.
	4. On or after December 31, 2004, a notice described in subsection (2) must be given at least 4 months before the forest stewardship plan is submitted for approval.
Context	The NOTICE: INDICATORS OF THE AMOUNT, DISTRIBUTION AND ATTRIBUTES OF WILDLIFE HABITAT REQUIRED FOR THE SURVIVAL OF SPECIES AT RISK IN THE SOUTH ISLAND FOREST DISTRICT specifies the amount, distribution and attributes of wildlife habitat required for "Queen Charlotte" Goshawk, Marbled Murrelet, and Scouler's Corydalis.
	Exemptions from the obligation of preparing a result or strategy for the South Island Forest District have been provided as set out FPPR S. 7(1) for the Queen Charlotte Goshawk and the Scouler's Corydalis. Therefore this FSP does not contain any results or strategies for these two species.
	The Notice specifies the amount, distribution and attributes of wildlife habitat required for Marbled Murrelet and consequently a result or strategy is required and is described below.
	At the time this plan was prepared there were no designated ungulate winter ranges (UWR) or wildlife habitat areas (WHA) within the CFA FDU's.
Species	Marbled Murrelet Brachyramphus marmoratus
Result or	1. In these results or strategies:
Strategy	 "Marbled Murrelet notice" means the notice entitled "Indicators of

the amount, distribution and attributes of wildlife habitat required for the survival of species at risk in the South Island Forest District for Marbled Murrelet' dated December 21, 2004:

- "non-contributing land base" means the non-contributing land base described in the applicable Timber Supply Analysis in effect for the land base at the time of the notice (Tree Farm Licence (TFL) 44 Management Plan No.4 dated September 2002) and updated in the current Timber Supply Analysis Report for the Community Forest Licence - K2D Alberni Valley dated June 2014.
- "detailed survey" references Standard Methods for Identifying and Ranking Nesting Habitat of Marbled Murrelets (*Brachyramphus marmoratus*) in British Columbia using air photo Interpretation and Low-level Aerial Surveys, Burger, A. ed 2004.
- "Amount" is an amount of Class 1, 2 or 3 Marbled Murrelet habitat within the non-contributing land base in each FDU at the time the Marbled Murrelet Notice was issued; and
- "Distribution" is where the habitat occurs on the land base; and
- "Attributes" Class 1, 2 or 3 Marbled Murrelet habitat, as described in Standard Methods for Identifying Marbled Murrelet Habitat in British Columbia Using Air Photo Interpretation and Low-level Aerial Surveys.
- The AVCF will carry out timber harvesting and road construction in a manner that retains the habitat consistent with the amount, distribution, and attributes as specified in the Marbled Murrelet notice.
- 3. For the purposes of subsection (2), the amount of habitat specified in the marbled murrelet notice will be:
 - a. first, identified on the non-contributing land base, or areas that are otherwise constrained with respect to timber harvesting, and if there is insufficient habitat on that land base, then identified on the contributing landbase; and
 - b. reduced by the amount of area of suitable habitat within any wildlife habitat area, or ungulate winter range established in the South Island Forest District subsequent to the date of the Marbled Murrelet Notice, except where:
 - i. a wildlife habitat area is established specifically for marbled murrelet, then the amount will be reduced by the entire amount of area in the wildlife habitat area.

Objectives, Strategies and Results apply to these Forest Development Units

Sproat √

Taylor √

5.2.3 Water, Fish, Wildlife and Biodiversity within Riparian Areas

5.2.3	Objectives set by government for Water, Fish, Wildlife and water, fish, wildlife and biodiversity Biodiversity within within riparian areas (FPPR S. 8) Riparian Areas
Objective	The objective set by government for water, fish, wildlife and biodiversity within riparian areas is, without unduly reducing the supply of timber from British Columbia's forests, to conserve, at the landscape level, the water quality, fish habitat, wildlife habitat and biodiversity associated with those riparian areas.
Strategies and Results	1. In respect of FPPR Section 8, the AVCFC will adopt as a result/strategy FPPR Section, 47 (4) to (6), 48(3) to (5), 49(2) to (3), 50(1), 51(1), 51(3), 52(2) and 53, (riparian management area, reserve zone and management zone standards and restrictions) as they were on the date of submission except in those circumstances as described below.
	 a. For areas of primary forest activity carried out by the AVCFC, the widths of the riparian management area, riparian reserve zone and riparian management zone will be:
	 i. As specified in FPPR Sections 47(4) to (6), 48(3) to (5) and 49(2) to (3), or
	ii. An equivalent amount of each riparian management area, riparian reserve zone and riparian management zone by class within the cutblock gross area or cutting permit gross area as would have been achieved under section 1a)(i) of this result/strategy provided that:
	I. Any increase or decrease in width from section 1a)(i) of this result/strategy considers the factors in FPPR Schedule 1, Section 2 and is specified in a written rationale signed by a qualified professional, prior to commencement of the primary forest activity, and
	II. An alternative width specified in section 1a)(ii) of this result/strategy would be as effective and/or functional as the width specified in section 1a)(i) of this result/strategy, based on one or more of the following circumstances:
	A. windthrow hazard and consequence,B. natural disturbance patterns,
	C. sensitive stream protection,
	D. water quality protection,
	E. environmental sensitivity such as terrain stability class 4 or 5,

- F. topography, or
- G. worker safety.
- b. In respect of **FPPR Section 51** (*restrictions in a riparian zone*), all roads outside of cutblocks will have riparian reserve zones in accordance with **FPPR Sections 47(4), 48(3) and 49(2)**.
- c. In respect of **FPPR Section 50** (restrictions in a riparian management area), for construction of roads through a stream, wetland or lakeshore Riparian Management Area, the Riparian Management Area will be as specified in **FPPR Section 47(4)**, **48(3) and 49(2)**.
- 2. In respect of **FPPR Section 12(3)**, if the AVCFC carries out a primary forest activity in a riparian management zone in a cutblock, the retention of trees will:
 - a. be based upon the factors in FPPR Schedule 1 Section 2, and
 - b. be specified and prescribed in a written rationale signed by a qualified professional, prior to commencement of the primary forest activity.
- 3. The AVCFC will cooperate with local groups promoting improved fish habitat.

Objectives, Strategies and Results apply to these Forest Development Units

Sproat √

Taylor √

5.2.4 Community Watersheds

5.2.4	Objectives set by government for water community Watersheds in community watersheds (FPPR S. 8.2)
Description	The entire FSP area is within the Sproat Lake Community Watershed.
Objective	1. In this section, "community watershed" refers to the Sproat Community Watershed as designated on 15 June 1995 under the Forest Practices Code and continued under FRPA S 180(e).
	2. The objective set by government for water being diverted for human consumption though a licensed waterworks in a community watershed is to prevent to the extent described in subsection (3) the cumulative hydrological effects of primary forest activities within the community watershed from resulting in
	 a. a material adverse impact on the quantity of water or the timing of the flow of the water from the waterworks, or
	 the water from the waterworks having a material adverse impact on human health that cannot be addressed by water treatment required under
	i. an enactment, or
	ii. the licence pertaining to the waterworks.
	3. The objective set by government under subsection (2) applies only to the extent that it does not unduly reduce the supply of timber from British Columbia's forests.
Strategies and Results	1. In respect of FPPR S. 8.2 (2), the AVCFC will adopt as a result/strategy, practice requirements in FPPR S. 59 (protecting water quality), 60 (licensed water works) and 61(excavated or bladed trails).
	2. Where a qualified professional completes or updates the Sproat Watershed Assessment and makes recommendations that are specific to sub basins or the community watershed as a whole, and/or are applicable to AVCF practices, then the AVCFC will incorporate the recommendations into forest practices unless a variance to the recommendations is supported by a rationale written by a qualified professional.
	3. The AVCFC will periodically monitor the following indicators of potential cumulative hydrological effects within the sub-basins of the Sproat Community Watershed that occur within the Alberni Valley Community Forest:
	 i. the percent of the watershed and/or sub-basin harvested above and below the 275m elevation band and calculate the

⁷ periodically means that monitoring will occur in response to changing circumstances such (for example) as new road and block development is proposed in a sub basin close to thresholds or following a peak flow event.

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- Equivalent Clearcut Area (ECA)%,
- ii. the active road density (km/km²) by elevation band and terrain stability class,
- iii. evidence of changes or signs of instability to the lower reaches or alluvial fans of Bookhout, Clutesi, Friesen, Weiner, Sutton, and South Sutton creeks.
- iv. any evidence of any mass wasting within the Community Forest.

These indicators will be compared to the results of current and past watershed assessments to assess status and risk relative to previous assessments and to inform development planning, harvesting, and road construction, maintenance and deactivation activities, such that cumulative effects are managed within recommended thresholds unless a variance to these thresholds is supported by a rationale written by a qualified professional.

- 4. With respect to managing cumulative watershed effects of primary forest activities within the Community Forest, the AVCFC will:
 - a. Work with other tenure holders operating within the Community Watershed to monitor, assess and manage cumulative effects,
 - b. Cooperate with local groups promoting water quality
 - c. With regards to primary forest activities:
 - i. Design cutblocks and roads in a manner that is consistent with a cumulative low to moderate risk threshold for material adverse hydrological effects
 - ii. Plan partial cut or retention silvicultural systems to focus retention in riparian areas.
 - iii. Minimize road requirements
 - iv. Plan for temporary rather than permanent roads where there is a high likelihood of erosion into streams
 - v. Carry out frequent road inspections and minimize delays in road repairs
 - vi. Minimize soil disturbance during harvesting.
 - vii. Install adequate culverts to ensure natural water drainage is maintained.
 - viii. Revegetate right-of-ways, cut slopes, road surfaces, and landings where revegetation will reduce soil erosion into watercourses,
- 5. With regards to road sections occurring on or adjacent to sensitive slopes or in the vicinity of a licensed water work where road surface drainage has the potential to enter into a stream flowing into Sproat Lake, fish stream, or licensed water work, the AVCF will apply the following best practices:

- a. <u>Ditch Cleaning</u>: where needed, ditches are to be cleaned when conditions are dry. Ditch spoil is not to be windrowed along the road shoulder. On moderate slopes, the ditch spoil could be thinly spread on the slope below the road, but not heaped or piled against trees. Where the road is on steep slopes, the ditch spoil should be end hauled to a suitable spoil site.
- b. <u>Culvert replacement</u>: Where required culvert replacements are to be done during dry weather (except for emergency repairs or replacements). The inlet and outlet areas on new culverts, and the adjacent fill slopes, will be armored to prevent erosion or sloughing into the creek.
- c. Rock Ballasting of road surface: For new road construction, where the road is close to a stream channel, the road surface is to be ballasted with clean rock. The road surface is also to be rock ballasted for 30 metres either side of stream culverts.
- d. Road grading practices: grading is to be avoided during heavy rain.
- e. <u>Shutdown or harvest completion:</u> In preparation for a shutdown for a period longer than 30 days or at a harvest completion, the following measures will be taken:
 - i. No excavated or endhauled material will be left piled in such a way as to become unstable during the shutdown period. Spoil sites, piles and fills will be sloped uniformly to prevent instability.
 - ii. Ditches and culverts will be left clear and functional, with adequate inlet basins to minimize the potential for plugging.
 - iii. On sections of steep grades, cross ditches and back-up swales will be constructed where needed to minimize ditch erosion.
 - iv. If road construction has reached a drainage course but a drainage structure has not been installed prior to shutdown, the drainage course will be left open and unimpeded.
 - v. Where exposed fine textured soils could erode and enter surface streams or ditches connected to streams, silt fences, hay bales or erosion blankets will be applied as needed for temporary protection.

Objectives Strategies and Results apply to these Forest Development Units:

Sproat √ Taylor √

5.2.5 Wildlife and Biodiversity – Landscape Level

5.2.5	Objectives set by government for wildlife and Biodiversity – landscape level [FPPR S. 9] Wildlife and Biodiversity – landscape level
Objective	The objective set by government for wildlife and biodiversity at the landscape level is, without unduly reducing the supply of timber from British Columbia's forests and to the extent practicable, to design areas on which timber harvesting is to be carried out that resemble, both spatially and temporally, the patterns of natural disturbance that occur within the landscape.
Strategies and Results	 The AVCFC will adopt FPPR Sections 64 (<i>cutblock size</i>) and 65 (<i>cutblock adjacency</i>), as results or strategies under this FSP. Further to subsection 1:
	a. cutblocks located in SMZ 17 will have a net area to be reforested in accordance with the result or strategy for VILUP HLP Order Objective 1(c) or HLP Order Objective 2.
Objectives St Units:	rategies and Results apply to these Forest Development Sproat $$ Taylor $$

5.2.6 Wildlife and Biodiversity – Stand Level

5.2.6	Objectives set by government for wildlife and Biodiversity – stand level [FPPR S 9.1] Wildlife and Biodiversity – stand level
Objective	The objective set by government for wildlife and biodiversity at the stand level is, without unduly reducing the supply of timber from British Columbia's forests, to retain wildlife trees.
Strategies and Results	1. Subject to subsections 2 and 3 of this result/strategy, the AVCFC adopts, as a result or strategy, section 66 (<i>wildlife tree retention</i>) and 67 (<i>restriction on harvesting</i>) of the FPPR.
	2. Where wildlife tree retention targets are specified in approved Landscape Unit Plans, wildlife tree retention will meet or exceed targets specified in approved Landscape Unit Plans.
	3. Buffer and protect active or recently used bear dens where they are located during cutblock layout.
	ategies and Results apply to these Forest Development $$ Sproat $$ $$
Units:	Taylor √

5.2.7 Cultural Heritage Resources

5.2.7	Objectives set by government for cultural heritage Resources [FPPR S. 10]		
Description	The AVCF lies within the asserted traditional territories of the Hupacasath and Tseshaht First Nations.		
Objective	The objective set by government for cultural heritage resources is to conserve, or, if necessary, protect cultural heritage resources that are		
	a. the focus of a traditional use by an aboriginal people that is of continuing importance to that people, and		
	b. not regulated under the Heritage Conservation Act.		
Strategies	In these results or strategies:		
and Results	"special cultural heritage resource" means a cultural heritage resource, other than a resource feature, that is		
	 a. the focus of a traditional use by the Hupacasath or Tseshaht peoples that is of continuing importance to those peoples, and 		
	b. not regulated under the Heritage Conservation Act.		
	 c. "monumental western redcedar or cypress" refers to western redcedar or cypress used for making paddles, masks, totems, canoes, and other traditional use items. 		
	d. identified in the Hupacasath Land Use Plan as important.		
	The following steps will be undertaken by the AVCFC:		
	2. The AVCFC will refer to the Hupacasath and Tseshaht First Nations, on an ongoing basis, areas within their traditional territories, identified for potential timber harvesting and road construction:		
	 a. to request information respecting special cultural heritage resources within the identified areas, and 		
	 b. with the intention of adhering to the overall cultural and forest management objectives contained in the Hupacasath First Nation's Land Use Plan. 		
	3. If the AVCFC identifies that adhering to one or more objectives of the Hupacasath First Nation Land Use Plan will conflict with other objectives, results or strategies contained in this FSP, the AVCFC will consult with the Hupacasath First Nation and the MFLNRO District Manager to review options and seek mutually acceptable solutions.		
	4. The AVCFC will evaluate the nature and extent of a possible site- specific special cultural heritage resource identified within areas of potential timber harvesting and road construction activities, including making reasonable efforts to share information with the Hupacasath		

- and Tseshaht First Nations in respect of the possible special cultural heritage resource.
- 5. The AVCFC, when designing a cutblock or road will, prior to harvest or construction, identify
 - a. the portion of the area occupied by a special cultural heritage resource,
 - b. the nature of the special cultural heritage resource,
 - c. whether the special cultural heritage resource is to be protected or conserved, and
 - d. if the special cultural heritage resource is to be conserved, what constraints, if any, are to apply to the forest practices carried out on the area and
 - e. where the Hupacasath or Tseshaht First Nation has provided comment on the special cultural heritage resource, notify the applicable First Nation in writing as to:
 - i. whether the special cultural heritage resource is to be protected or conserved, and
 - ii. if the special cultural heritage resource is to be conserved, what constraints, if any, are to apply to the forest practices carried out on the area.
- 6. For each special cultural heritage resource that has been identified under subsection 4 for protection, the AVCFC will carry out a forest practice only to the extent that the forest practice does not damage or render ineffective the special cultural heritage resource.
- 7. For each special cultural heritage resource that has been identified under subsection 4 for being conserved, the AVCFC will carry out a forest practice only to the extent that the forest practice is consistent with the constraints, if any, specified in the design for the cutblock or road.
- 8. If, within a cutblock or road where the AVCFC is carrying out harvesting or road construction, a previously unidentified special cultural heritage resource is encountered, the AVCFC will
 - require operations within the cutblock or road to cease or be modified to the extent necessary to protect the special cultural heritage resource,
 - b. determine:
 - i. the nature of the special cultural heritage resource,
 - ii. whether the special cultural heritage resource is to be protected or conserved, and
 - iii. if the special cultural heritage resource is to be conserved, what constraints, if any, are to apply to the forest practices carried out on the area,
 - c. modify the design of the cutblock or road to conform with

- subsection 7(b)(iii), and
- d. resume operations within the cutblock or road to the extent that the operations are consistent with the modified design.
- 9. In addition to subsections 2 through 7, the AVCFC recognizes that mature western redcedar and cypress located within the identified FDU are special cultural heritage resources to the Hupacasath and Tseshaht First Nations and the AVCFC will ensure that, in addition to subsections 2 through 7.
 - a. western red cedar and cypress, where ecologically suited, will be planted on areas referred to in section 29 (1) of the Act in accordance with the stocking standards specified in this forest stewardship plan and
 - b. where requested by the Hupacasath or Tseshaht First Nation, the AVCFC will assist in developing a strategy for and in the identification of monumental western redcedar or cypress within their traditional territory and
 - c. where a strategy for monumental western redcedar or cypress as outlined in 8(c) has been developed and agreed upon by the AVCFC, the applicable First Nation and the Ministry Natural Resource Operations, the AVCFC will assist in implementation of the strategy.
- 10. In addition to subsections 2 through 7, the AVCFC recognizes that deciduous species such as bitter cherry, yew and arbutus located within the identified FDU may be special cultural heritage resources to the Hupacasath and Tseshaht First Nations. The AVCFC will ensure that.
 - a. where one or more of these species is identified to the AVCFC as a special cultural heritage resource by a First Nation, and
 - b. where it is present in an area referred to in FRPA section 29(1) (free growing stands), a component of these species will be maintained within the free growing stand (section 29(1) area), provided that it can be done in accordance with the stocking standards specified in this forest stewardship plan

Objectives Strategies and Results apply to these Forest Development Units:

Sproat √



5.2.8 Recreation

5.2.8	Interpretative forest sites, recreation Recreation Features sites and recreation trails [FRPA 56(1)]		
Description	A number of recreation trails as shown on the FSP maps are known to the AVCF including the Teodore and Sproat Lake Lookout Trails in the Sproat FDU (including access to karst features) and the Mt Adder, Gibson-Klitsa (Brigade Lake) [Rec 6390 1] and the Klitsa (aka Brooke George) trails in the Taylor FDU. In addition the AVCF is also aware of a trail system in the Weiner Creek watershed (Weiner Falls) and connecting the Teodore and Sproat Lake Lookout trails that has not yet been mapped. It was also made known during the public open house that several popular camping sites exist along the south side of the Taylor River between the river and South Taylor Main. Existing recreation features are further described in the AVCF Management Plan section 13.3.4.		
Objective	There are no legally established interpretative forest sites, recreation sites or recreation trails within the community forest area and consequently no legally established objectives for these features.		
The AVCF objective is that industrial activities will coexist and complement recreational opportunities within the community for the community of the community			
Strategies and Results	The AVCF will follow the strategies described in section 13.3.4.3 of the AVCF Community Forest Agreement Application and Forest Management Plan (April 16,2009).		
Objectives Strategies and Results apply to these Forest Development			
Units:	Taylor √		

5.3 Objectives Established under the GAR

5.3.1 Visual Quality

5.3.1	Objectives Established under the Government Actions Regulation Visual Quality Objectives	
Objective	Visual Quality Objectives (VQO) are established for the South Island Natural Resource District, including areas of the Alberni Valley Community Forest, pursuant to Section 7(2) of the Government Action Regulation (GAR) by an approved GAR order dated December 15, 2005 and amended effective December 30th, 2011. These VQOs apply to the scenic areas identified as known in the district manager's letter dated November 13, 1998 and grandparented under Section 180 of the Forest and Range Practices Act. These objectives apply to the crown land portions of the South Island Forest District, and to the private land within Woodlot Licenses and Tree Farm Licences. 1. In these results or strategies: "applicable scenic area" means a scenic area that was made known in the South Island Forest District by letter dated November 13, 1998, and "applicable visual quality objective" means the visual quality objective established for a scenic area in the South Island Forest District pursuant to Section 7(2) of the Government Actions Regulation and as defined in the FPPR Section 1.1. 2. Within each applicable scenic area, the AVCFC will: a. ensure that each cutblock or road is designed in a manner such that the alteration to the forest landscape of the applicable	
Strategies and Results		
	scenic area, when assessed from a significant public viewpoint, will be consistent with the applicable visual quality objective, and b. carry out forest practices only if the forest practices are consistent with the design for the cutblock or road referred to in paragraph (a).	
Objectives Stra Units:	ategies and Results apply to these Forest Development Sproat $$ Taylor $$	

5.3.2 Karst

5.3.2	Resource Feature Order (Dec 11, 2009) Karst			
Objective	The GAR order dated December 11, 2009 came into effect on January 15, 2010 and identifies the following surface or subsurface elements of a karst system as resource features wherever they are found within the South Island Forest District.			
	Karst caves,			
	Significant surface karst features, and			
	 Important features and elements within high and very high vulnerability karst terrain. 			
	The order requires that agreement holders must satisfy the annual reporting requirements for karst features as per FPPR s. 86(3)(b) however this reporting requirement is no longer part of the FPPR.			
Strategies and Results	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
	The AVCF will report any new discovered karst features within the community forest area to the provincial karst inventory system and will follow existing generally accepted best management practices for forest operations on karst terrain.			
	rategies and Results apply to these Forest Development Sproat \(\sqrt{2} \)			
Units:	Taylor $\sqrt{}$			

5.4 Measures

5.4.1 Measures to prevent the introduction and spread of invasive plants

Measures to Prevent the Introduction and Spread of Invasive Plants (FRPA S.47, FPPR S.17) FRPA S. 47 requires that:

A person carrying out a forest practice or a range practice must carry out measures that are

- (a) specified in the applicable operational plan, or
- (b) authorized by the minister to prevent the introduction or spread of prescribed species of invasive plants. FPPR S. 17

For the purpose of section 47 [invasive plants] of the Act, a person who prepares a forest stewardship plan must specify measures in the plan to prevent the introduction or spread of species of plants that are invasive plants under the Invasive Plants Regulation, if the introduction or spread is likely to be the result of the person's forest practices.

5.4.1 Measures to Prevent the Introduction and Spread of Invasive Plants Measures In these measures: "applicable area" means an area where a. it is likely that forest practices will result in introduction or spread of invasive plants, b. there is a moderate to high risk invasive plants, and any priority invasive plants are likely to germinate on soil exposed that is a result of a person's forest practices under this FSP, c. it is reasonably expected that grass would grow on these exposed sites, and d. it is reasonably foreseeable that revegetation with grass seed would materially reduce the likelihood of invasive plant germination: and e. the AVCFC has not deemed the area as an active surface "preferred seed" means seed with the following attributes: a. high sod-forming content, except in areas that are planted with tree seedlings; b. has been certified by the Canadian Seed Growers Association that the seed: i. meets Common #1 Forage Grade or better standards for varietal purity established by the Association for seed of that species (Seeds Act, Seeds Regulation S.2(1)), and ii. is of native origin. "Priority invasive plants" includes Gorse, Japanese Knotweed, Giant Knotweed, Scotch Broom, Purple Loosestrife, and Yellow Iris. 1. The AVCFC will: a. confirm known locations of priority invasive plants within the plan area using the most current recognized provincial database. b. distribute information to staff and contractors on priority invasive plants that exist or threaten to establish within the plan area, c. direct staff to monitor and report new incidences of priority invasive plants and enter them into most current recognized provincial database d. direct the persons carrying out timber harvesting and/or road building activities to inspect logging and road building equipment for invasive shrub vegetation, and remove from equipment prior to transporting equipment from an area of a known occurrence of the invasive plant to a remote location or

site where the invasive plant is currently not present.

- 2. If the AVCFC carries out a forest practice in an applicable area, the AVCFC will, within one year of completing the activity authorized in the cutting permit, will:
 - a. revegetate contiguous areas of exposed soil that exceed 0.1 ha giving preference to preferred seed that is:
 - i. readily available, and
 - ii. comparable in cost to agronomic mixtures, and
 - iii. comparable in effectiveness to agronomic mixtures and
 - b. revegetate temporary access structures within cutblocks with legumes.

These measures apply to these Forest Development Units:	Sproat √
	Taylor √

5.4.2 Measures to Mitigate the Effect of Removing or Rendering Ineffective Natural Range Barriers

5.4.2	Measures to Mitigate the Effect of Removing or Rendering Ineffective Natural Range Barriers.	
	Not applicable to the AVCF. There are no agreements under the range act in the vicinity of the community forest nor livestock grazing within the FDU.	
These measures apply to these Forest Development Units: Sproat		
		Taylor

6.0 STOCKING STANDARDS

6.1 Situations or Circumstances that determine whether Free Growing is assessed on a Block Basis or Across Blocks

FPPR S. 44(1) applies in all situations or circumstances under the FSP where a free growing stand is required to be established under FRPA S. 29

6.2 Regeneration Date and Stocking Standards, Free Growing Height

The Stocking Standards specify the regeneration date, free growing height and stocking standards for the situations or circumstances where FPPR S. 44(1) applies.

The stocking standards for the AVCF are found in Appendix 1, Table A.

6.3 Situations or Circumstances that Determine when FPPR S. 44(4) and the Standards Applicable Under FPPR S.16(4) Applies

If the AVCFC carries out harvesting of special forest products (other than woodchips or hogged tree material), intermediate cuts, commercial thinning or the removal of individual trees from within the area under this plan, then the Stocking Standards found in Appendix 1, Table B will apply. The AVCF will ensure that harvested areas to which these stocking standards apply will conform to these stocking standards for a period of 12 months after the completion of harvest.

For salvage of timber resulting from windthrow, root rot mortality, or other similar events, openings of up to 0.1 ha in size are acceptable and do not require a site plan or associated requirements for the regeneration and establishment of a free growing stand. No long-term impact on timber yield is expected as the subject areas are likely to regenerate naturally or will be planted concurrent with harvest in adjacent areas.

For openings larger than 0.1 ha even-aged stocking standards will apply.

7.0 REVIEW AND COMMENT

This Forest Stewardship Plan was advertised on January 18, 2011 and made available for review and comment for a period 60 days ending on March 18, 2011. The review and comment process included direct referrals to two First Nations a range of agencies and community organizations as well as a public open house. Comments were received from private individuals and community groups. All comments received were responded to. The comments received did not result in any changes to the FSP document. A full description and summary of the review and comment process and copies of all input received can be found in the original companion document: **Review and Comment Information**.

A second public review and comment process is being conducted in association with this plan update and extension and will be documented in the final submission.

8.0 REVISIONS

This draft extension edition of the FSP includes the following edits and revisions to the approved and amended version of the FSP. Page number references refer to the approved version of the Plan (June 2011) and Amendment (May 2014). Revised text has been shown in red throughout the text. Yellow highlights indicate where words have been removed or sections have been substantially re-organised.

Cover Page:

- added reference to extension
- added reference to draft version
- updated document and signature date to 2016

Table of Contents:

updated page numbers

Page 3,4: Section 1.0 Introduction

- editorial changes second, third, sixth, seventh paragraphs
- update web references fifth paragraph
- added new paragraph describing FSP extension and statement that it is consistent with chief forester guidance to improve measurability and verifiability

Page 5: Section 2.0 Date of Submission

updated date of submission of draft extension document

Page 6: Section 4.0 FSP Map

added statement regarding map updates

Page 8: Table 3

- added reference to 2011 VQO GAR amendment
- added reference to Karst Resource Features GAR

Page 9: Table 4

added FPPR reference and FSP section reference for visual quality

Page 15: Table 5.1.2a - VILUP Objective 1a

edits to Result or Strategy text to improve clarity

Page 16: Table 5.1.2b - VILUP Objective 1b

change 'wildlife tree patch' to 'wildlife tree retention area'

Page 18: Table 5.2.1 - Soils

• under practice requirements: remove unclear language to clarify commitment

Page 20: Table 5.2.2 - Wildlife: Marbled Murrelet result & strategy

reorganise text to improve clarity - this does not change the result/strategy

Page 22: Table 5.2.3 - Water Fish, Wildlife and Biodiversity in Riparian Areas

 section 3 of result/strategy: remove word 'consult' in reference to local groups. The retained word cooperate is a more accurate representation of current relationships and interests.

Page 23-26: Table 5.2.4 - Community Watersheds

- objectives section: add reference to Sproat Community Watershed & designation, remove irrelevant sections of regulation for clarity
- Results & Strategy section: re-write and re-organisation of original text to improve clarity. Removed specific references to thresholds for triggering monitoring (section 3) and strengthened commitment to periodic monitoring, including conditions under which analysis and monitoring would take place. Removed specific risk assessment methodology references and changed these to refer to methodologies used in current and past watershed assessments to provide a more comprehensive basis for how comparative monitoring will continue to be done. This also allows for more flexibility to respond to changes in watershed assessment procedures that are coming and expected to be applied in the future. These edits do not constitute a significant change in the results and strategy commitment for the community watershed but may constitute a minor amendment due to changes in terminology and reference.

Page 27, 28: Table 5.2.7 Cultural Heritage Resources

- under description removed second sentence due to redundancy subsequent to revised boundaries of Tseshaht FN which now encompass the entirety of the Community Forest.
- section 4 Results & Strategies: removed words 'or consult' since this is not the responsibility of the AVCFC

Page 31: Table 5.3.1 - Visual Quality Objectives GAR

- Objective: edited and updated text for improved clarity and accuracy
- Strategies and Results: added reference to FPPR S1.1, updated language under 2(a) to improve clarity, verifiability, and consistency with the regulation.

page 35: Stocking Standards

- section 6.2: added reference to stocking standards located in table A, appendix 1
- section 6.3: updated references applicable to FPPR S44.4 and removed old reference to unevenaged stocking standards and deciduous targets since these are not applicable (covered in Table A & B) and confusing.
- Added reference location of stocking standards for S44.4 areas in Table B, Appendix 1.

page 37-39:

Section 8: revisions list has been replaced to reflect current revisions only

page 40:

• Signatures - dates updated to draft extension document, AVCF signature withheld pending final submission.

page 41-43 Appendix 1

- Table A: Stocking standards Free Growing dates extended to 20 years as provided for in the FPPR S 44.(1)(b). The extension of the FG dates to 20 years for under S44.(1)(b) does not preclude the AVCFC from declaring FG at an early time but provides for flexibility and avoids unnecessary administration in the event that earlier dates are not achieved. This is considered to be a minor amendment to the FSP.
- Table B: Stocking Standards for FPPR S44(4) Areas renamed and moved from the end of Appendix 2. These stocking standards were amended into the FSP in 2014 and have not been changed. However the reference text has been edited to remove the reference to 'specified areas' and add a reference to their application to layer 1 only. A reference to future application of SEDRESS stocking standards is also included.

Appendix 2

- changed name of appendix removed reference to 'alternative'
- removed stocking standards for specified areas and moved to Appendix 1

Appendix 3 - FSP maps.

 There have been no changes to FDU boundaries or new areas where new government objectives apply. The updated maps reflect updated information from the LRDW and from new development and resource information updates since the original FSP.

9.0 SIGNATURES

Alberni Valley Community Forest Corporation



RPF Signature: _

Name: Leonard W Apedaile RPF

Position: Consulting Forester, Econ Consulting

Date: March 30, 2016



AVCFC Signature:

Name: Chris Law R.F.T.

Position: Manager, Alberni Valley Community Forest Corporation

Date: April 4, 2016

APPENDIX 1: STOCKING STANDARDS

Table A: Stocking Standards

ADMINISTRATION			
Vancouver Forest Region South Island Forest District	Alberni Valley Community Forest	CF# KD2	January, 2011

Standards ID	ID #	ВЕС							A	cceptable	Species			Sto	cking (w/s)		Min Inter Tree Dist (m)	Regen Delay	FG Date	Tree Ht > Brush (min %)	Comments:				
	n .	Zone & variant	Site Series	1	Ht (min)	2	Ht (min)	3	Ht (min)	4	Ht (min)	1	Ht (min)	2	Ht (min)	3	Ht (min)	Target P&A (sph)	Min P&A (sph)	Min P (sph)	MITD (m)	Max (yrs)	Late (yrs)		
1037503	1	CWHmm1	01	Fd	3.0	Cw	1.5					Hw ¹¹	2.0					900	500	400	2.0	6	20	150	
1037504	2	CWHmm1	02	Pl	1.25	Fd	2.0					Cw	1.0					800	400	400	2.0	6	20	150	
1037505	3	CWHmm1	03	Fd	2.0	Cw ³	1.0					Hw*	1.75					800	400	400	2.0	3	20	150	
1037506	4	CWHmm1	04	Fd	2.0	Cw ²⁹	1.0					Pw ²²	2.5	Hw*	1.75			900	500	400	2.0	3	20	150	
1037507	5	CWHmm1	05	Fd	3.0	Cw	1.5					Pw^{22}	2.5	Hw*	2.0	Ba*	0.75	900	500	400	2.0	3	20	150	
1037508	6	CWHmm1	06	Cw	1.5	Hw	2.0					Fd ⁸	3.0	Ba*	0.75			900	500	400	2.0	6	20	150	
1037509	7	CWHmm1	07	Cw	2.0	Fd	4.0					Ba*25	1.0	Hw*	2.5			900	500	400	2.0	3	20	150	
1037510	8	CWHmm1	12	Cw^4	1.0							Hw ⁴	1.5	Ss ⁴	2.0			800	400	400	2.0	3	20	150	
1037546	A	CWHmm1	05,07	Dr	4.0	Mb	4.0					Act	4.0					1200	1000	800	1.5	3	20	150	Deciduous management
1037511	9	CWHmm2	01	Hm ¹² /Hw	1.0/1.25	Cw	1.0	Fd ¹⁰	2.25	Yc	1.0	Ba	1.75					900	500	400	2.0	6	20	150	
1037512	10	CWHmm2	02	Pl	1.25	Fd	1.5					Cw	0.75					800	400	400	2.0	6	20	150	
1037513	11	CWHmm2	03	Fd	1.5	Hw	1.0	Cw ²⁹	0.75			Hm ¹²	0.75	Yc	0.75			800	400	400	2.0	3	20	150	
1037514	12	CWHmm2	04	Fd	1.5	Cw ²⁹	0.75					Pw ²²	2.5	Yc	0.75	Hw*	1.0	900	500	400	2.0	3	20	150	
1037515	13	CWHmm2	05	Ва	0.75	Cw	1.0	Yc	1.0	Fd ¹⁰	2.25	Pw ²²	2.5	Hw*	1.25			900	500	400	2.0	6	20	150	
1037516	14	CWHmm2	06	Hw	1.25	Cw	1.0	Yc	1.0			Ba	0.75	Hm ¹²	1.25	Fd ¹³	2.25	900	500	400	2.0	6	20	150	

Standards ID	ID #	ВЕС	!							A	cceptable	Species			Sto	ocking (w/s)		Min Inter Tree Dist (m)	Regen Delay	FG Date	Tree Ht > Brush (min %)	Comments:			
		Zone & variant	Site Series	1	Ht (min)	2	Ht (min)	3	Ht (min)	4	Ht (min)	1	Ht (min)	2	Ht (min)	3	Ht (min)	Target P&A (sph)	Min P&A (sph)	Min P (sph)	MITD (m)	Max (yrs)	Late (yrs)		
1037517	15	CWHmm2	07	Cw^4	0.75	Hw	1.0	Ba	0.75			Hm ¹²	0.75	Yc ⁴	0.75			800	400	400	2.0	3	20	150	
1037518	16	CWHmm2	08	Cw	1.25	Yc	1.25	Ba	1.0			Hw ⁵	1.75	Fd ¹⁰	3.0			900	500	400	2.0	3	20	150	
1037519	17	CWHmm2	10	Cw ⁴	0.75							Pw ²²	2.5	Yc ⁴	0.75	Hw*4	1.0	800	400	400	2.0	3	20	150	
1037520	26	CWHvm2	01	Fd ^{8,4,10,18}	2.25	Hw	2.5	Cw/Yc ²⁸	1.5	Ba	1.75	Hm*12	1.0					900	500	400	2.0	6	20	150	
1037521	27	CWHvm2	03	Cw	1.0	Hw	1.75	Fd ^{10,15}	1.5	Yc ²⁸	1.0	Pw ^{15,22}	Hm*12	0.75	P1*26	1.25		800	400	400	2.0	6	20	150	
1037522	28	CWHvm2	04	Cw	1.0	Hw	1.75	Fd ^{10,15}	1.5	Yc ²⁸	1.0	Ba	1.5	Pw ¹⁵	2.5	Hm*12	0.75	900	500	400	2.0	6	20	150	Also acceptable: Ss* ²³ with a height of 2.0m
1037523	29	CWHvm2	05	Cw	1.5	Hw	2.5	Yc^{28}	1.5	Ba	1.75	Fd ^{4,9,,10,18}	2.25	Hm*12	1.0			900	500	400	2.0	3	20	150	
1037524	30	CWHvm2	06	Cw	1.5	Hw	2.5	Yc^{28}	1.5	Ba	1.75	Hm*12	1.0	Ss*8	3.0			900	500	400	2.0	6	20	150	
1037525	31	CWHvm2	07	Cw	2.0	Hw ⁵	3.5	Yc^{28}	2.0	Ba	2.25	Hm*12	1.0					900	500	400	2.0	3	20	150	
1037526	32	CWHvm2	08	Cw ¹³	2.0	Hw ⁵	3.5	Yc^{28}	2.0	Ba	2.25	Ss ²³	4.0	Hm*12	1.0			900	500	400	2.0	3	20	150	
1037528	33	CWHvm2	09	Cw ⁴	1.0	Hw^4	1.75	Yc ^{4,28}	1.0	Hm ¹²	1.75	Ba	1.5	P1*4	1.25			800	400	400	2.0	3	20	150	
1037529	34	CWHvm2	11	Cw ⁴	1.0	Yc ^{4,28}	1.0					Hw^4	1.75	Hm* ^{12,26}	0.75	Ss ^{4,14,23}	2.0	800	400	400	2.0	3	20	150	
1037530	35	CWHxm	01	Fd	3.0							Hw	2.0	Cw	1.5	Pw^{22}	2.5	900	500	400	2.0	3	20	150	
1037531	36	CWHxm	03	Fd	2.0	Pl	1.25					Cw	1.0	Hw*	1.25	Pw ²	2.5	800	400	400	2.0	8	20	150	
1037532	37	CWHxm	04	Fd	3.0							Cw	1.5	Pw^{22}	2.5			900	500	400	2.0	3	20	150	
1037533	38	CWHxm	05	Cw	2.0	Fd	4.0					Pw ²²	2.5	Bg* ²⁶	3.5	Hw*	1.75	900	500	400	2.0	3	20	150	
1037534	39	CWHxm	06	Cw	1.50	Hw	2.0	Fd ¹⁷	3.0			Bg*8	3.00	Pw ²	2.5			900	500	400	2.0	6	20	150	
1037535	40	CWHxm	07	Cw	2.0	Fd	4.0	Bg	3.5			Hw*	1.75					900	500	400	2.0	3	20	150	
1037536	41	CWHxm	12	Cw^4	1.0							Hw**	1.5	Pw ²²	2.5	Ss*23	1.5	800	400	400	2.0	3	20	150	

Standards ID	ID #	BEC Preferred Species										Ассер	otable S	Species			Sto	ocking (w/s)		Min Inter Tree Dist (m)	Regen Delay	FG Date	Tree Ht > Brush (min %)	Comments:	
		Zone & variant	Site Series	1	Ht (min)	2	Ht (min)	3	Ht (min)	4 H (mi			Ht (min)	2	Ht (min)	3	Ht (min)	Target P&A (sph)	Min P&A (sph)	Min P (sph)	MITD (m)	Max (yrs)	Late (yrs)		
1037546	С	CWHxm	05,07	Dr	4.0	Mb	4.0				Ac	t ·	4.0					1200	1000	800	1.5	3	20	150	Deciduous Management
1037547	D	CWHxm	01/06	Cw	1.5	Pw ²²	2.5				Fd ³	0	3.0 H	w ³⁰	2.0			900	500	400	2.0	3	20	150	Alternate species root rot treatment
1037548	Е	CWHxm	03	Cw	1.0	Pw^{22}	2.5				Fd ³	0	2.0	Pl	1.25			800	400	400	2.0	3	20	150	Alternate species root rot treatment
1037549	F	CWHxm	04	Cw	1.5	Pw ²²	2.5				Fd ³	0	3.0					900	500	400	2.0	3	20	150	Alternate species root rot treatment
1037550	G	CWHxm	05/07	Cw	2.0	Pw ²²	2.5				Fd ³	0	4.0 B	g^{30}	3.5			900	500	400	2.0	3	20	150	Alternate species root rot treatment
1037537	42	MHmm1	01	Ba	0.6	Hm	1.0	Yc	1.0		Hw*1	3,26	1.0					900	500	400	2.0	7	20	125	
1037538	43	MHmm1	02	Hm	0.75	Yc	0.75				Ва		0.6					800	400	400	2.0	4	20	125	
1037539	44	MHmm1	03	Ba	0.6	Hm	1.0	Yc	1.0		Hw* ¹	3,26	1.0					900	500	400	2.0	4	20	125	
1037540	45	MHmm1	04	Ba	0.6	Hm	1.0				Hw*	3,26	1.0					900	500	400	2.0	7	20	125	
1037541	46	MHmm1	05	Ba	0.6	Yc	1.0				Hn	ì	1.0 Hw	*13,26	1.0			900	500	400	2.0	4	20	125	
1037542	47	MHmm1	06	Hm ⁴	0.75	Yc ⁴	0.75				Ba	4	0.6					800	400	400	2.0	7	20	125	
1037543	48	MHmm1	07	Ba^4	0.6	Yc ⁴	0.75				Hm	4 (0.75					900	500	400	2.0	4	20	125	
1037544	49	MHmm1	09	Yc ⁴	0.75	Hm ⁴	0.75											800	400	400	2.0	4	20	125	

Reference Notes for stocking standards

Tree Species

'Ba' is amabilis fir

'Bg' is grand fir

'Cw' is western red cedar

'Fd is coastal Douglas fir

'Hm' is mountain hemlock

'Hw' is western hemlock

'Pl' is lodgepole pine

'Pw' is white pine

'Ss' is sitka spruce

'Yc' is yellow cedar

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

MIN' or 'Min' means minimum

- 2 Pw is considered an acceptable species where root rot is prevalent, up to 20% of stand
- 4 Elevated microsites are preferred
- 5 Suitable on thick forest floors
- 8 Restricted to nutrient-medium sites
- 9 Restricted to steep slopes
- 10 Restricted to southerly aspects
- 12 Restricted to upper elevations of biogeoclimatic unit
- 13 Restricted to lower elevations of biogeoclimatic unit
- 15 Restricted to southern portion of biogeoclimatic unit in region
- 17 Restricted to eastern portion of biogeoclimatic unit in region
- 18 Restricted to trial use
- 22 Risk of white pine blister rust
- 23 Risk of weevil damage
- 25 Risk of balsam woolly adelgid
- 26 Minor component
- 28 Species is restricted to upper elevations when used in the southern portion of the biogeoclimatic
- 29 Will be preferred in wetter portions of the site series
- 30 Not acceptable within 10m of a root rot infected stump
- * Species are listed as tertiary in the Vancouver Forest Region (VFR) recommended stocking standards, but not listed as acceptable species. They have been included as acceptable for a minor portion of the stand if a cruise report indicates it was present as merchantable volume in the pre-harvest stand. The percentage of the free-growing stand that may be comprised of the species will be on a sliding scale within 5 percentage points leading up to the 20%. For example, if a cruise report showed 15% Hw merchantable volume in the pre-harvest stand, within 5 percentage points leading up to the 15% of the free-growing stand could be Hw.
- ** Hw is listed as an acceptable species in the VFR stocking standards but no height was given 1.5m used as the minimum height

In addition to the notes regarding species in the VFR stocking standards, the following apply:

• On CWH vm2 site series 01, Fd is restricted to steep slopes.

This table is based on the Vancouver Forest Region *Reference Guide for FDP Stocking Standards* dated November 12, 2010. BEC zones and variants not present within the AVCF licence area have been excluded from this table.

Where standards units (SUs) are comprised of an un-mappable mosaic of site series, the practice will be to manage for the stocking standards of the dominant site series provided that the tree species are suitable in all site series contained within the SU.

Reduction of inter-tree spacing to 1.5m is acceptable for site-specific conditions involving bedrock, large blocky colluvium or hygric sites on disturbed roadside areas. Roadside areas generally contain high percentages of mineral and morainal type soils.

A risk of balsam wooly adelgid exists throughout Vancouver Island and applies to all Abies species (http://www.al.gov.bc.ca/cropprot/balsamwa.htm).

Pruning regime for western white pine

If white pine is to be counted in a free-growing survey as one of the well-spaced stems, it will have been pruned in accordance with the following regime:

First Lift -

- Trees will be pruned when mean height of white pine is 1.0 to 2.5 m for plantations.
- Natural white pine will be pruned when height is 1.5 to 3.0 m
- Trees will be pruned to 50 to 65% of total tree height.
- Infected branches above target pruning height will be selectively pruned
- In high hazard areas, early pruning will be considered

Second Lift -

- Trees will be pruned when mean height of white pine is > 5m
- Trees will be pruned to 3.0 m or 50% of total height
- Trees < 5 m will be pruned to 50% of total height

Third Lift (optional) -

• May be performed to approx. 5.5 m to improve wood quality, mainly when used to reforest areas infected with root disease

Definitions of terms used in reference:

- 1. *Disturbed roadside area* area within the road right-of-way that has been disturbed due to road construction, where logs have been landed and log processing occurs. It would be a maximum of 10 m. from the traveled portion of the road (i.e. the length of a log).
- 5. Thick forest floor forest floor >20 cm.
- 6. *Coarse-textured soils* sand and loamy sand; or sandy loam, loam, sandy clay loam with >70% coarse fragments
- 9. Steep slopes >50% slope
- 10. Southerly aspect- SSE to WSW with slopes >35%
- 11. Northerly aspect NW to ENE with slopes >50

Stocking Standards for FPPR S.44(4) areas

FPPR S.44(4) areas include areas subject to commercial thinning, the removal of individual trees, areas subject to single/group tree selection or other types of intermediate cutting, and areas subject to the harvest of special forest products.

Application of these stocking standards applies to single layer stands. Post harvest assessments will focus on remaining layer 1 trees only. Retained trees should have suitable silvical characteristics as well as sufficient live crown (typically >30%) to respond to increased light availability and be of suitable form to increase in volume and value over time. These stocking standards are not intended to act as a guide for commercial or pre-commercial thinning prescriptions. They provide minimum stocking standards that ensure adequate site occupancy and stocking such that a free growing stand is maintained and subsequent regeneration is not required.

New Single Entry Dispersed Retention Systems Stocking Standards stocking standards for coastal douglas fir are under development and will be reviewed for applicability to the AVCF when they become available.

Table B: Stocking Standards for FPPR S.44(4) areas

Target from	Layer		ver 1)	
Table A standards		Target pa	MIN pa	MIN p
(stems/ha)			(well-spaced/ha)	
1200	Single	400	200	200
900	Single	400	200	200
800	Single	300	150	150

^{**} pa - preferred and acceptable species p - preferred species

The inclusion of layer one requirements only indicates that no multilayered uneven aged management regimes are intended within the Community Forest.

[&]quot;Target from Table A standards' are as specified in Table A and according to biogeoclimatic ecosystem classification (BEC) site series.

APPENDIX 2: RATIONALE IN SUPPORT OF STOCKING STANDARDS

Alternative deciduous and root rot stocking standards are proposed given the high root rot risk in the CWHxm and the licensee's full intent to facilitate the best practices in forest management and to improve site productivity and species/product diversity.

Site plans will be prepared for each cutblock as per Section 10 of FRPA. At this stage the fundamental decision will be made as to what stocking standard will apply and the Standard Unit ID will be assigned.

Forest health concerns raise additional issues as to the appropriateness of the defaults in areas where root rot (e.g. Phellinus weirii) impacts the regeneration and long-term health and productivity of the preferred species. The proposed alternative stocking standards for root rot promote healthy stands that protect adjacent resources and values. For example on infected zonal sites (01) adjacent to an S4 creek or recreational trail where stumping is not appropriate to control sediment or to maintain visual appearance. In these cases the establishment of Douglas fir (preferred) may prove difficult and unsuited in the long-term due to re-infection.

The Chief Forester's stocking standards indicate black cottonwood (Act), red alder (Dr) and bigleaf maple (Mb) as being a productive, reliable and feasible regeneration options on some site series within the CWHxm and CWHmm1. The use of broadleaf species is proposed in consideration of the Chief Forester's memorandums dated August 22nd, 2000 and May 1st, 2008 and the supporting note 'Common Principles for the Management of Red Alder within the Coast Forest Region' dated August 2004.

The management for broadleaf species is proposed on a limited scale. There are currently only a small number of deciduous leading stands within the tenure area. While deciduous management was not specifically considered in the AVCF Management Plan, it is expected that it will have an overall positive impact on the AAC. If deciduous management becomes a more important aspect of woodlot management it will be accounted for the in next AAC determination.

The broadleaf standards are also supported by the following research literature:

Hibbs et al. The Biology and Management of Red Alder (1994),

E.B. Petersons et al. FRDA Report 250 – Black Cottonwood and Balsam poplar manager's handbook for British Columbia (1996).

L. Sigurdson et al. 2nd draft report on Weyerhaeuser's Red Alder Management Practices (1998),

P.J. Courting et al. Forest Research Extension Note 016 - Red Alder management trials in the Vancouver Forest Region (2002).

The minimum height criterion for deciduous species is based on the tallest conifer standard of the particular site series since the listed hardwoods are at least as rapid growing as their conifer counterpart. If a cedar or Sitka spruce understory is planted in addition to the full hardwood stocking, then the natural pruning of the alder would be enhanced. However, the stand's status will only be measured using the broadleaf

standards. The removal of the alder at harvest age is operationally possible, while leaving a fully stocked, semi-mature conifer pole stand behind.

Damage criteria for broadleaf species have not been established. No significant insect or disease outbreaks have been recorded for existing alder trials to date. General free-growing criteria will be adopted and damage assessed by the survey technician at the time of the survey. Well-spaced stems will be of good form, health and vigour. Species-specific damage criteria will be used upon development.

A limited number of scattered broadleaf trees will be tolerated on all conifer plantations to provide a nurse crop, promote nutrient cycling and for general biodiversity objectives. Up to 50 stems per hectare (sph) of broadleaf trees will be allowed such that they do not influence the free to grow status of adjacent conifers. Because the standard methodology (3.99m radius plot) is too small to reflect appropriate deciduous densities only 1 deciduous tree per 4 sample plots will be allowed.

APPENDIX 3 - FSP MAPS

Overview Map FDU A – Sproat Operating Area FDU B – Taylor Operating Area

