ALBERNI VALLEY COMMUNITY FOREST CORPORATION

Alberni Valley Community Forest

Forest Stewardship Plan

Supporting Document 2011-2016

(To accompany the FSP, but not part of the FSP)





May 10, 2011 - FINAL

Prepared by:

OF LEONARD W. APEDALE & BRITISH COLUMBIA

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

May 9, 2011

Len Apedaile R.P.F. Econ Consulting

Authorized by:

Certify that this Ferest Stewardship Plan is authorized on bel of the Alberni Valley Community Forest Corporation.

June 16, 2011

Jim Sears Chair, Alberni Valley Community Forest Corporation

TABLE OF CONTENTS

TAE	BLE C	F CONTENTS	1
1.0		Introduction	2
2.0		Date of Submission	3
3.0		Term of the FSP and Commencement	
4.0		FSP Map and Forest Development Units	3
4.	1	FOREST DEVELOPMENT UNITS	
4.		DESIGNATIONS IN EFFECT	
4.	3	FRPA SECTION 196 / FPPR SECTION 110 AREAS	
4.	4	Areas subject to a Road Permit	4
4.	_	OTHER EXISTING TENURES/OBLIGATIONS WITHIN THE FSP AREA	
4.	-	OTHER PLANS	
	4.6.1	0	
	4.6.2	AVCF Management Plan	
	4.6.3	Hupacasath Land Use Plan	
5.0		Results, Strategies and Measures	8
5.	1	LAND USE OBJECTIVES (FSP S. 5.1)	9
	5.1.1	Order Establishing Sproat Lake Landscape Unit and Objectives	9
	5.1.10		
	5.1.11	1 3	
	5.1.10	T	
_		Vancouver Island Land Use Plan Higher Level Plan Order	
5.	2	OBJECTIVES PRESCRIBED UNDER FRPA S.149	
	5.2.1	Objectives set by government for soils [FPPR s.5]	
	5.2.2	Wildlife	
	5.2.3 5.2.4	Water, Fish, Wildlife and Biodiversity within Riparian Areas	
	5.2.4 5.2.5	Community Watersheds Wildlife and Biodiversity – Landscape Level	
	5.2.6	Wildlife and Biodiversity – Landscape Level Wildlife and Biodiversity – Stand Level	
	5.2.7	Cultural Heritage Resources	
	5.2.8	Recreation	
5.		OBJECTIVES ESTABLISHED UNDER THE GAR	
	5.3.1	Visual Quality Objectives for the South Island Forest District	
	5.3.2	Karst	36
5.4		Measures	36
	5.4.1	Measures to prevent the introduction and spread of invasive plants	36
	5.4.2	Measures Related to Natural Range Barriers	
6.0		Stocking Standards	37
7.0		Referral and Review	38
8.0		Revisions	38
9.0		Copies of Legal Objectives	39

1.0 Introduction

This supporting document provides additional information in support of the Forest Stewardship Plan (FSP) **but is not part of the FSP.** This means that the content of this supporting document does not create specific legal obligations. Rather, the purpose of this document is to:

- 1. provide rationale related to the results and strategies, stocking standards and measures described in the FSP, and
- 2. provide plain language interpretative information related to the content of the FSP to assist with understanding the plan document and how it relates to the Management Plan and to the subsequent operational planning and implementation process.

This FSP is the inaugural FSP for the Alberni Valley Community Forest, as such it has been designed to function as a general baseline plan designed to meet legal requirements, be consistent with the management plan, and provide the basis to initiate the first operational planning and development cycle on the land base.

The first 5 years of operation to which this FSP will apply will be the startup phase for the community forest during which procedures for business and operational planning, community involvement and reporting, and implementing various management priorities and approaches on the land base will be further developed. It is anticipated that this experience along with increased familiarity with the land base will lead to the further development of results and strategies unique to the community forest that may be incorporation into future versions of the FSP.

Much of the content of this plan has been based on the approved BCTS FSP for TFL 44 West to create efficiencies in the preparation and approval of the plan and provide for consistency with higher level planning in the adjacent land base. FSP content is strongly influenced by the language and structure of the legislation and associated government orders and objectives. Consequently, and because the strategies and results described in the plan become the legal benchmarks upon which Community Forest will be evaluated it was decided during the preparation of the plan to adopt relevant content from existing FSP's.

The FSP is not an operational plan and as such does not provide specific information about future roads and harvest blocks. This will occur in the next and subsequent phase of operational planning in the form of cutting permit and road permit applications and communicated and reviewed in advance to interested community members and stakeholders.

This supporting document has been structured to mirror the FSP document (heading numbers etc) to facilitate cross-reference and interpretation. Table headings use a different color regime to help reduce confusion. To assist with interpretation it is recommended that both documents be read side by side.

The FSP is designed to indicate where within the community forest landbase (forest development units) future planning and development activities may take place what strategies and results will be applied to guide and ensure these activities conform with established resource management objectives.

The FSP public review process is a key opportunity for First Nations, stakeholders and community members to provide input into the development and applicability of resource management strategies and results that will guide operational planning and development. The core elements of the FSP subject to the review and approval process are:

- Results and strategies related to government objectives (including higher level plans),
- Stocking standards that detail regeneration and free-to grow standards consistent with maintaining or enhancing future timber supply, the existing timber supply analysis and forest management assumptions,
- Measures to prevent the introduction or spread of invasive plants and manage natural range barriers where applicable.

2.0 Date of Submission

The anticipated date of submission for approval will be the third week of March 2011. The plan will be submitted to the Ministry of Forest Lands and Natural Resource Operations for approval.

3.0 Term of the FSP and Commencement

The term of the forest stewardship plan is 5 years. An FSP may be extended for an additional period not exceeding 5 years (with or without changes) before or after it expires or be replaced with a new plan.

The commencement date of the plan will be determined at the time of approval.

4.0 FSP Map and Forest Development Units

4.1 Forest Development Units

The Forest Development Units (FDU's) indicate areas that will contain forest development activities and that will have a common set of objectives, results and strategies.

The two FDU's (Sproat and Taylor) were determined based on their geographic separation and differences in the applicability of government objectives. The Taylor FDU falls within SMZ 17 and is subject to higher-level plan objectives related to old growth and sustaining forest ecosystems that do not apply to the Sproat FDU.

4.2 Designations in Effect

Section 14.3 of the Forest Planning and Practices Act requires that any of the following 'things' that have legally been designated and are in effect at the time of

FSP submission be listed and identified on the FSP maps. The list of potential 'designations' includes:

- ungulate winter ranges
- wildlife habitat areas
- fisheries sensitive watersheds
- lakeshore management zones, including specifying the width of the zone, if the zone is identified on a map accompanying the establishment of the lakeshore management zone,
- scenic areas,
- lakes identified as an L1 lake under section 49 (1) (b) (ii) if the lake has been identified on a map accompanying the identification,
- · community watersheds
- old growth management areas
- area in which commercial timber harvesting is prohibited by another enactment,
- cutting permit and road permit held by the agreement holder if that is the person required to prepare the plan, and,
- road permit or timber sales licence granted or entered into by the timber sales manager.

Table 2 in the FSP lists the only three designations that apply to the AVCF (Scenic Areas, Community Watershed, and Old Growth management Areas). Existing road authorities are listed in section 4.4. These are also shown on the FSP Maps. None of the other designations currently apply.

4.3 FRPA Section 196 / FPPR Section 110 Areas

This refers to areas (roads, blocks) that were previously included under forest development plans or other plans prior to the FSP. While there are several blocks within the Taylor FDU that have been partly or fully engineered by the previous licensee (2422,2424,2426,243411-2429,243412-2430,243413, 243414-2431,244308-2423, 244309) these have no planning status. Consequently there are no areas within the FSP area to which FRPA S 196 or FPPR S110 apply.

4.4 Areas subject to a Road Permit

The following table lists road sections that are designated as FSR's and/or subject to an existing road permit (client other than the AVCFC).

Sproa	nt FDU	Taylor FDU			
Road Licence/ID	Type / Client	Road Licence/ID	Type / Client		
7954 80	FSR / DM SIFD	7954 36	FSR / DM SIFD		
7954 178	FSR / DM SIFD	7954 92	FSR / DM SIFD		
7954 28	FSR / DM SIFD	7954 93	FSR / DM SIFD		
7954 227	FSR / DM SIFD	7954 94	FSR / DM SIFD		
7954 23	FSR / DM SIFD	7954 95	FSR / DM SIFD		

Sproa	at FDU	Taylor FDU			
7954 24	FSR / DM SIFD	7954 96	FSR / DM SIFD		
		R07669 TF22E	RP / WFP		
7954 26	FSR / DM SIFD	7954 97	FSR / DM SIFD		
7954 27	FSR / DM SIFD	7954 98	FSR / DM SIFD		
R07669 AS12N2	RP / WFP	R07669 TA563	RP / WFP		
		7954 99	FSR / DM SIFD		
R07669 AS12	RP / WFP	7954 229	FSR / DM SIFD		
R07669 AS120G	RP / WFP	R07669 TaylorMain	RP / WFP		
R07669 AS3	RP / WFP	7954 102	FSR / DM SIFD		
		R07669 TA552A	RP / WFP		
R07669 AS83A2	RP / WFP	7954 100	FSR / DM SIFD		
		R07669 TA552J	RP / WFP		
		7954 101	FSR / DM SIFD		
		R07669 TA552G	RP / WFP		

4.5 Other existing tenures/obligations within the FSP Area

The following information is not required in the FSP and is provided for reference purposes only. It lists other miscellaneous tenures, authorities or obligations in effect (or under application) at the time of submission that are within the FSP area but not covered by FSP requirements. These include:

Feature	Sproat FDU	Taylor FDU		
Traplines	TR010	97T407		
Guide Outfitter Areas	1000674 (Lingl)	100671 (Deluca)		
Water Licence (Power)		PD 76152 (Sutton Creek)		
		1409880 (ROW Penstock)		
		1409881 (Power line)		
		PD 76148 (Klitsa Creek)		
		140877 (ROW Penstock)		
		1409878 (Power line)		
Water Licence (Domestic)	PD29600, PD29601			
Gravel Pit		1407672 Sand/gravel quarry		
Recreation Trail		REC6390 Gibson-Klitsa Trail		
Growth and Yield Plot:	5-3A-501R, 505R, 509R	5-4C-506R		
Mineral Tenures	843030, 737222, 737282, 842478, 844694	506020, 575455		

Previously logged cutblocks with remaining free to grow obligations held by Western Forest Products include:

Sproat FDU

Opening #	Cutblock ID	Status
1058538	3504S	Planted 2006, late FTG 2025
53705	3502	Late FTG 2016
64758	3505	Late FTG 2017
73706	2533	Planned FTG survey 2011
97607	2625	Planned FTG survey 2011

Taylor FDU

iuyioi i Do		
Opening #	Cutblock ID	Status
96803 2431		Late FTG 2021
103910	2430	Late FTG 2015
117111	243413	Late FTG 2024
100721	2429	Late FTG 2021
85231	2423	Planned FTG survey 2011

4.6 Other Plans

4.6.1 Higher Level Plans

The Vancouver Island Land Use Plan Higher Level Plan Order and the Order Establishing the Sproat Lake Landscape Unit and Objectives are the two legally established higher-level plans that apply to the AVCF and have objectives that must be addressed in the FSP. These are addressed in section 5.1 of the FSP.

4.6.2 AVCF Management Plan

The Alberni Valley Community Forest Agreement Application and Management Plan document (April 2009) includes the land use vision, goals and guiding principles for the community forest along with a full description of the resource values and characteristics of the community forest landbase. The Management Plan also includes the allowable annual cut calculation and assumptions, which have been approved, and set the initial direction and development scope for the Community Forest. The plan also includes an analysis of the AAC uncertainties related to alternative management approaches that remain unresolved for the community forest (for example old growth harvesting, riparian buffer standards, recreation feature management). The FSP does not resolve or define these issues or add constraints beyond legal requirements. Instead it retains flexibility so that these can be addressed through the start up phase and through the broader process of community forest development planning and consultation.

The AVCF Management Plan includes a series of resource management objectives and strategies for timber and non-timber values that are consistent with FRPA objectives and were included in the Management Plan in consideration of future FSP requirements. These objectives are not in conflict with FRPA objectives and requirements but in many

cases provide more specific guidance about how FRPA objectives may be achieved on the AVCF land base. These objectives and strategies were reviewed during FSP preparation and some were included into the FSP strategies and results where considered appropriate. That some details and strategies were not directly incorporated into the FSP does not negate their relevance to the management of the community forest as they continue to provide direction at the Management Plan level.

The AVCF Management Plan also includes some elements of resource management that are not explicitly covered within the scope of the Forest Stewardship Plan - usually because there are no explicit objectives, orders or designations that exist within the community forest area that apply to these elements. Examples of these include recreation objectives, non-timber (or botanical) forest products objectives, educational, and tourism opportunities. The application of these objectives and initiatives to the management of the community forest therefore remains a function of implementing the management plan.

4.6.3 Hupacasath Land Use Plan

The Hupacasath First Nation (HFN) Land Use Plan (HLUP) is a strategic higher level plan that defines the Hupacasath First Nation's land and forest values and management objectives at the territorial level and defines Hupacasath cultural and resource values for Hupacasath Use Areas. Both AVCF FDU's (Sproat and Taylor) fall within their respectively named Hupacasath Special Management Land Use areas (Sproat and Taylor) and are subject to the Special Management Area standards contained in phase 2 of the Hupacasath Land Use Plan.

The AVCF Management Plan endorses the Hupacasath Land Use Plan recognises that some of the HLUP requirements (such as riparian buffers) exceed those of the Forest and Range Practices Act and may have AAC implications that have yet to be resolved. While the FSP does not automatically embed HLUP requirements it does reiterate the AVCFC's Management Plan commitment to adhering to the overall objectives of the HLUP and to conducting ongoing referral on a case-by-case basis of proposed roads and blocks to the Hupacasath and Tseshaht First Nations. This will provide an active mechanism to review and consider the application of the Land Use Plan standards to proposed developments on a site-by-site basis.

5.0 Results, Strategies and Measures

The objectives, strategies and results statements are the core elements of the FSP and are documented in the green tables 5.1.1 to 5.3.1 in the FSP document.

Objectives are transcribed into each table directly from their source in a higher-level plan, legislation or government order, and are shown in *red italics*. The name and type of objective are shown in the header of each table. Results and strategies or practice requirements for each objective are included in 'normal text' in the centre of each table.

"Result" means a description of:

- (a) measurable or verifiable outcomes in respect of a particular established objective, and
- (b) the situations or circumstances that determine where in a forest development unit the outcomes under paragraph (a) will be applied;

"Strategy" means a description of

- (a) measurable or verifiable steps or practices that will be carried out in respect of a particular established objective, and
- (b) the situations or circumstances that determine where in a forest development unit the steps or practices will be applied.

The FDU to which the objective, results and strategy applies is indicated in the footer of each table.

The following red tables in this document mirror those presented in the FSP but contain interpretative information and rationale to support the results and strategies included in the FSP. Many of the rationale statements are consistent with rationale statements for the same objectives and strategies contained in the BCTS TFL 44 FSP support document.

5.1 Land Use Objectives (FSP S. 5.1)

5.1.1 Order Establishing Sproat Lake Landscape Unit and Objectives

5.1.1a Sproat Lake Landscape Unit Objective 1

5.1.1a	Order Establishing Sproat Lake	Objective 1: Old Growth
011110	Landscape Unit and Objectives	Management Areas

This objective and the prescribed results and strategies address the management and replacement of designated old growth management areas and specify permissible circumstances and activities whereby OGMA's may be subject to or impacted by operational activities. The strategy and result are essentially a reiteration of the objective statement reflecting the legal requirements.

- 1. The result/strategy is measurable or verifiable because:
 - The Sproat Lake Landscape Unit Plan established Old Growth Management Areas (OGMAs) polygons and associated objectives that limit road construction and timber harvesting activities within the OGMAs. The strategy commits to not constructing road or harvesting timber within the OGMA polygons except as allowed in the approved Landscape Unit Plan.
 - OGMAs are spatially delineated and mapped.
 - The AVCFC will report its harvesting activities consistent with FPPR S. 86.
- 2. The result/strategy is consistent with the objective set by government because:
 - To contribute to the conservation of biodiversity, the strategy commits to not constructing roads or harvesting timber, except as allowed in the objectives.
- 3. The result/strategy is consistent with timber harvesting rights granted by government because:
 - It applies to road construction and cutblock harvesting activities under the control of the AVCFC.

Section 13.3.9.2 of the AVCF management plan addresses landscape level biodiversity and includes a strategy to work with regulatory agencies to relocate OGMA's to better correspond with recreational areas and those that are difficult to access using conventional harvest methods. This process would be separate from normal operational planning activities to which these results and strategies apply and any proposed location or configuration changes would need to be consistent with landscape unit planning, this objective and subject to approval by government.

Objectives, Strategies and Results apply to these Forest	Sproat √
Development Units	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

This objective and the prescribed results and strategies govern the establishment and maintenance of wildlife tree retention within the AVCF.

- 1. The result/strategy is measurable or verifiable because:
 - The Sproat Lake Landscape Unit Plan established wildlife tree retention targets by BEC variant within the landscape unit. The strategy commits to identifying Wildlife tree retention areas that meet the target amounts in the Landscape Unit Plan.
 - The AVCFC will report its harvesting activities consistent with FPPR S. 86.
- 2. The result/strategy is consistent with the objective set by government because:
 - To contribute to the conservation of biodiversity, the strategy is commits to not constructing roads or harvesting timber, except as allowed in the objectives.
 - The strategy also commits to identifying wildlife tree retention areas consistent with the targets as specified in the objectives.
- 3. The result/strategy is consistent with timber harvesting rights granted by government because:
 - It applies to road construction and cutblock harvesting activities under the control of the AVCFC.

The strategy is consistent with AVCF Management Plan objectives and strategies for stand level biodiversity (S 13.3.9.3) and section 3(7) Variable Retention Harvesting of the Hupacasath Land Use Plan.

Objectives, Strategies and Results apply to these Forest	Sproat √
Development Units:	Taylor √

5.1.1c Sproat Lake Landscape Unit Objective 3

5.1.1c Order Establishing Sproat Lake Landscape Unit and Objectives

This objective specifies that 25% of the total forested area of SMZ 17 be retained as mature and old forest (>80 years of age). The prescribed results and strategies commit the AVCFC to working with other licensees operating in the SMZ to meet this objective and limit harvesting in mature or old forest if the spatial targets within the SMZ drop below the prescribed threshold. It also recognizes that the AVCFC is responsible for the portion of the SMZ falling within the Taylor FDU.

Objective 3: Special

Management Zone 17

This strategy also addresses HLP Objective 1a. See table 5.1.2a for detailed rationale and additional considerations related to this objective.

The strategy is consistent with AVCF Management Plan objectives and strategies for landscape level biodiversity (S 13.3.9.2).

Objectives, Strategies and Results apply to these Forest	
Development Units:	Taylor √

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 Taylor FDU exists within Special Management Zone (SMZ) 17-Strathcona Taylor.

When objectives specified in the Higher Level Plan (HLP) Order are narrow and specific, the results/strategies included in the AVCF FSP must be based directly on what is specified in the HLP Order objective.

SMZ #17 exists beyond the boundaries of the Taylor FDU. The AVCFC is only responsible for the portions of the SMZ that exists within the Taylor FDU.

5.1.2a VILUP HLP IIA Objective 1a

5.1.2a Vancouver Island Land Use Plan Higher Level Plan Order Section IIA Objective 1a

This objective relates to sustaining forest ecosystem structure and function by creating or maintaining mature and old forest.

The strategy for managing this objective is that same as for Objective 3 of the Sproat Lake Land Use Plan (table 5.1.1c) and the following rationale and considerations apply equally to both.

- 1. The result/strategy is measurable or verifiable because:
 - It provides clear targets by SMZ, limiting harvesting in certain instances.
 - It outlines details on how the harvesting in respect of the targets will be assessed.
- 2. The result/strategy is consistent with the objective set by government because:
 - It outlines a result/strategy that seeks to maintain the 25% of mature forest target within the area of each SMZ.
 - It outlines a result/strategy that is consistent with the relationship between the VIHLP Order and Landscape Unit Planning.
- 3. The result/strategy is consistent with timber harvesting rights granted by government because:
 - It applies to road construction and cutblock harvesting activities under the control of the AVCFC.

- 4. Additional information for the Delegated Decision Maker to consider:
 - a) Mature Forest Reference to "mature" forests in the Higher Level Plan Order objective is understood to mean mature plus old forest. The result/strategy and backgrounder document reflect this interpretation.
 - b) Relationship to Landscape Unit Planning
 The VIHLP Order states that mature seral forest targets for Objective 1(a) will be
 established through landscape unit planning. However, in the transition section of
 the VIHLP Order it is indicated that in the event that landscape units and
 objectives are not established in an area within 2 years of the date that the order
 takes effect, the objective will be implemented in the area. Because more than 2
 years has passed since the VIHLP Order took effect, Objective 1(a) must be
 implemented.

The result/strategy for maintenance of the targets outlined in the FSP is an interim step. AVCFC will work with other licensees to further define these criteria across the SMZ including BC Timber Sales who issued a contract for the selection of draft OGMAs for the purposes of meeting the intent of Section 8 of the *Order Establishing Provincial Non-Spatial Old Growth Objectives* and eventually to become part of approved Landscape Unit Plans.

c) For all SMZs – Forest Structure The VIHLP Order states:

"mature seral forest is defined as generally 80-120 years or older, depending on species and site conditions". The structure of mature seral forest 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."

For this Forest Stewardship Plan, the actual age of the forest is being used to determine how much area must be left to maintain mature seral targets. This is the best information available for the entire area within the SMZs.

In future, spatial designation of mature seral forest may also be undertaken. If Terrestrial Ecosystem Mapping (TEM) is completed and available for an entire SMZ that is a part of this Forest Stewardship Plan, an analysis may be undertaken so that stands with the structural stage equivalent to stands equal to 80 -120 years in age and older would be spatially defined to meet the mid/old seral target.

For this FSP, maintaining the mature plus old seral target area within the SMZ is not an issue. There is either sufficient mature plus old seral forest or other factors limiting the amount of harvest available in the amount of harvest available in the SMZ.

Objectives, Strategies and Results apply to these Forest Development Units

Taylor √

5.1.2b VILUP HLP IIA Objective 1b

5.1.2b Vancouver Island Land Use Plan Higher Level Plan Order Section IIA Objective 1 b

This objective and result or strategy addresses retention of structural forest attributes and elements with important biodiversity functions within cutblocks within the Taylor FDU. It is consistent with objectives and strategies for stand level biodiversity contained in the Management Plan (13.3.9.3) and for variable retention standards contained in section 3(7) of the Hupacasath Land Use Plan.

- 1. The result/strategy is measurable or verifiable because:
 - It describes structural forest attributes that may be retained.
 - It describes management areas in which these attributes will exist.
 - The objective itself is narrow, and it has been written into a result/strategy.
- 2. The result/strategy is consistent with the objective set by government because:
 - The result/strategy provides for stand diversity within cutblocks.
 - The objective itself is narrow, and it has been written into a result/strategy.
- The result/strategy is consistent with timber harvesting rights granted by government because it applies to road construction and cutblock harvesting activities under the control of the AVCFC.
- 4. Additional information for the Delegated Decision Maker to consider:

Structural Forest Attributes and Elements Structural forest attributes and elements will be retained through the results/strategies in other portions of this FSP including:

- Wildlife tree retention areas within cutblocks. FPPR S. 66 and 67 set out the requirements for wildlife tree retention areas;
- Coarse woody debris (CWD) retention. FPPR S. 68 sets out the requirement for coarse woody debris retention.

In addition:

- CWD & wildlife trees can be augmented at the stand level by including these structural forest attributes in streamside reserves, basal area (BA) retention in riparian management zones (RMZs), wildlife tree patches (WTPs) and in partial cut harvesting systems,
- Some riparian management area (RMA) retention as well as other cutblock retention may be non-contiguous within cutblock boundaries and distributed throughout cutblocks.

Qualified professionals generally consider these elements during the development of site plans. The result/strategy provides for stand diversity within or adjacent to cutblocks. Limitations placed on cutblock size and silvicultural systems within SMZs will assist in providing horizontal diversity within future stands.

Objectives, Strategies and Results apply to these Forest Development Units

Taylor √

5.1.2c VILUP HLP IIA Objective 1c

5.1.2c Vancouver Island Land Use Plan Higher Level Plan Order

Section IIA Objective 1 c

This objective and associated results and strategies specify the use of a variety of silviculture systems and patch sizes and limits maximum block size to 5ha for clearcuts, clearcut with reserves or seed tree silvicultural systems or to 40 ha for shelterwood, selection or retention silvicultural systems. This applies to the Taylor FDU. (Note that the maximum (clearcut / NAR) block size in the Sproat FDU is 40 ha as per FPPR S. 64.

A definition of silviculture systems including the retention system can be found in the Silviculture Systems Handbook for British Columbia (2003)

http://www.for.gov.bc.ca/hfp/publications/00085/silvsystemshdbk-web.pdf

The retention system involves:

- a. retaining individual trees or groups of trees to maintain structural diversity over the area of the cutblock for at least one rotation, and
- b. leaving more than half the total area of the cutblock within one tree-height from the base of a tree or group of trees, whether or not the tree or group of trees is inside the cutblock.

This strategy is consistent with objectives and strategies for stand level biodiversity contained in the AVCF Management Plan (S13.3.9.3) and with objective 3(7) for Variable Retention Timber Harvesting in the Hupacasath Land Use Plan, which provides further operational guidance for implementing variable retention.

- 1. The result/strategy is measurable or verifiable because:
 - The silvicultural system is specific to a cutblock.
 - The cutblock size, shape, and distribution are measurable.
- 2. The result/strategy is consistent with the objective set by government because:
 - The result/strategy provides for a variety of patch sizes and shapes across the landscape, specific to the silvicultural system being used.
 - The objective itself is narrow, and it has been written into a result/strategy.
- 3. The result/strategy is consistent with timber harvesting rights granted by government because:
 - It applies to road construction and cutblock harvesting activities under the control of the AVCFC.
- 4. Additional information for the Delegated Decision Maker to consider:
 - a) Silvicultural Systems

A variety of silvicultural systems are to be applied across the community forest area, and represent a variety of retention levels. The silvicultural system and therefore the degree of retention, is determined by site characteristics, and the values that are present in the area when developing site plans. It is expected

that each opening will have some level of retention based on these characteristics and values.

b) Patch Distribution

Patch distribution is described in the Landscape Unit Planning Guide as areas with a similar age, generally within a 20-year range. An accepted tool for assessing and guiding patch size distribution across a Landscape Unit is a patch size distribution analysis. If one is completed for the Taylor FDU within the FSP, (which is within SMZ 17), it could provide direction for meeting the distribution of the natural disturbance patterns as described in the Landscape Unit Planning Guidebook (LUPG). Patch size distribution analysis and the subsequent recommendations are focused on new harvesting or disturbed area 20 years or younger, as denoted by the relevant forest cover inventory label. To complete the analysis, areas may be grouped into units based on Natural Disturbance Types (NDT) and like biogeoclimatic zones.

c) Varying Levels of Retention

The spatial distribution of dispersed or other forms of retention areas may be varied to take advantage of natural structural diversity. Differences in site conditions between cutblocks —such as the size of riparian and stream buffers and size of buffers for windthrow management — are expected to dictate a variety of retention patch levels and sizes. Site conditions such as topography, windthrow potential, visual management objectives, wildlife constraints and harvest system also affect retention patch levels and shapes.

Objectives, Strategies and Results apply to these Forest Development Units

Taylor √

5.1.2d VILUP HLP Objective 2

5.1.2d Vancouver Island Land Use Plan Higher Level Plan Order

HLP Objective 2

This objective provides for exceptions to Objective 1, allowing cutblocks larger that 5 or 40 ha in the Taylor FDU in the event that harvesting is carried out to recover timber that was damaged by fire, insects or wind or other similar events.

- 1. The result/strategy is measurable or verifiable because:
 - Cutblocks size (> 5 or 40 ha as the case may be) is measurable.
 - The existence of structural characteristics incorporated into the cutblock is verifiable.
- 2. The result/strategy is consistent with the objective set by government because:
 - The objective itself is narrow, and it has been written into a result/strategy.
- 3. The result/strategy is consistent with timber harvesting rights granted by government because:
 - It applies to road construction and cutblock harvesting activities under the

control of the AVCFC.

4. Additional information for the Delegated Decision Maker to consider:

Salvage of damaged timber may require exceeding the cutblock size described in Objective 1(c). The size of cutblocks associated with salvage of damaged timber are normally determined considering a variety of factors including:

- the extent of damaged timber;
- the financial viability of recovering the damaged timber;
- present and potential fire hazard; and
- the impact of the associated forest values.

Objectives, Strategies and Results apply to these Forest Development Units

Taylor √

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

The AVCF is exempt from the requirement to write a result or strategy for the objective set by government for soils. The AVCF undertakes to comply with the FPPR S35 practice requirements related to soil disturbance limits and permanent access structure limits. This is consistent with soil conservation objectives and strategies contained in section 13.3.10 of the AVCF Management Plan.

Objectives, Strategies and Results apply to these Forest Development Units

Sproat √

Taylor √

5.2.2 Wildlife

5.2.2 Objectives set by government for wildlife [FPPR S.7] Wildlife

This result and strategy is consistent with wildlife objectives and strategies contained in section 13.3.6 of the AVCF Management Plan and with standards for managing red and blue listed species contained in section 2(8) of the Hupacasath Land Use Plan.

A Notice indicating 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.

Licensees operating within the SIFD are exempt from the obligation of preparing a result or strategy in relation to the objective set out in FPPR s. 7(1) for the Queen Charlotte Goshawk as noted in the Order establishing WHA 1-006 dated February 10, 2005.

Licensees operating within the SIFD are exempt from the obligation of preparing a result or strategy in relation to the objective set out in FPPR s. 7(1) for the Scouler's Corydalis as noted in the Order establishing WHA 1-190 to 1-197dated May 25, 2006.

Considering these exemptions the result and strategy contained in the FSP relates specifically to Marbled Murrelet and is based on the results and strategies developed for this by BCTS who have conducted most of the modelling and survey work to date for the Sproat LU. The AVCF will enter into an agreement with BCTS regarding the use of this information.

Species Marbled Murrelet Brachyramphus marmoratus

- 1. The result/strategy is measurable or verifiable because:
 - The area of suitable habitat can be summarized annually and measured against the area of suitable habitat at the time the Notice was provided.
 - Nesting habitat has been spatially defined within the FDU, therefore the
 amount of habitat class 1, 2 and 3 can be documented and the draw down of
 suitable habitat can be measured against the amount in the Notice at the time
 the time the Notice was provided.
- 2. The result/strategy is consistent with the objective set by government because:
 - It describes amount, distribution and attributes consistent with the language provided in the Notice.
- 3. The result/strategy is consistent with timber harvesting rights granted by government because:
 - It applies to road construction and cutblock harvesting activities under the control of the AVCFC.
- 4. Additional information for the Delegated Decision Maker to consider:
 - a) Determination of Amount as Described in the Notice

In the Notice, the use of non-contributing land base and old growth management areas is for the single purpose of calculating the amount. It is not used for determining distribution or attributes.

b) "Queen Charlotte" Goshawk

As per Order – Wildlife Habitat Areas # 1-006, Part 4, "pursuant to section 7(3) of the *Forest Planning and Practices Regulation* the person(s) required to prepare a forest stewardship plan are hereby exempted from the obligation to prepare results or strategies in relation to the objective set out in section 7(1) of the *Forest Planning and Practices Regulation* for Queen Charlotte Goshawk in the South Island Forest District" a R/S for Queen Charlotte Goshawk is no longer required.

c) Marbled Murrelet

No specific amount has been stated in the Notice therefore no specific amount has been stated in the strategy. The amount can be determined prior to the annual report. The amount stated in the annual report can be determined by attributes described in the R/S. One of the attributes of marbled murrelet habitat to be addressed according to the Order is 'patch size'. A balanced range of patch sizes is desirable. It is unlikely that the range of patch sizes on the landbase where marbled murrelet habitat occurs will change, as the landbase on which it occurs will maintain variable patch sizes.

e) Scouler's Corydalis

The Notice refers to the *Accounts and Measures for Managing Identified Wildlife* (Identified Wildlife Management Strategy Version 2004) in the Distribution for Scouler's Corydalis. IWMS 2004 indicates that this does not occur in the area of the FSP therefore no result/strategy was written. In addition to this, an exemption have been given from the obligation of preparing a result or strategy in relation to the objective set out in FPPR s. 7(1) for the Scouler's Corydalis as noted in the Order establishing WHA 1-190 to 1-197dated May 25, 2006.

More information on these species at risk may be found in the publication: Interfor and the government of BC. 2003. A field guide to species at risk in the coast forest region of British Columbia BC Gov't publication series. 151 pp. and in BC's Coast Region Species & Ecosystems of Conservation Concern: Factsheets and User's Guide, January 2011 online document http://www.geog.ubc.ca/biodiversity/factsheets/

f) Other

Other identified wildlife species that have not been indicated in the notices can be given consideration for management under FPPR S. 70(2) practices. This includes two masked sensitive occurrences that occur in the FSP area, one outside of the Sproat FDU and one within the Taylor FDU. Confidential information regarding these masked occurrences have been provided to the AVCF by the Conservation Data Centre.

g) Regionally Important Wildlife

FPPR S. 7(1)(b): No regionally important wildlife species have been identified

in an Order as per FPPR S. 7(2)(a).

h) Specified Ungulate Species

FPPR S. 7(1)(c): No Ungulate winter ranges have been spatially established for the area of the plan. No Notices have been provided as per FPPR S. 7(2)(b).

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

This result and strategy is consistent with objectives and strategies contained in section 13.3.2 and 13.3.3 of the AVCF Management Plan and is consistent with the objectives and intent of the water quality [3(2)] and riparian buffer [3(4)] standards contained in the Hupacasath Land Use Plan. While the latter prescribes 30m buffers for small streams and 50m buffers for fisheries –sensitive zones – these standards are not unilaterally adopted by the FSP in favour of a more flexible, site-specific approach as outlined in the results and strategies and in the following rationales.

- 1. The result/strategy is measurable or verifiable because:
 - It specifies that management decisions will determine in which portions of the riparian standards results/strategies will apply.
 - It specifies the circumstances and conditions under which different portions of the results/strategies will apply.
 - It specifies that the results/strategy applies to the riparian management area, riparian management zone, or riparian reserve zone.
 - If the applicable practice requirements specified in FPPR S. 47 to 53 are adopted by the AVCFC as results/strategies for establishment of riparian reserves, riparian widths, and management areas, they are measurable or verifiable against the practice requirements specified in FPPR S. 47 to 53 for riparian widths and management criteria.
 - If the AVCFC does not consider the applicable practice requirements specified in FPPR S. 47 to 53 to be a good management strategy for a site level reserve or management zone, the AVCFC is responsible for having prepared, prior to commencement of the primary forest activity, a written rationale signed by a qualified professional that is based on the FPPR Schedule 1 S. 2 riparian factors.

The presence of the written and signed rationale for operating outside of the practice requirements specified is measurable and verifiable. The degree to which the FPPR riparian factors are addressed within the riparian variance rationale and subsequent riparian variance prescription is measurable and

verifiable.

- If the AVCFC does not consider the applicable practice requirements specified in FPPR S. 47 to 53 to be a good management strategy for a site level reserve or management zone, the AVCFC is responsible for tracking variances from those applicable practice requirements relating to riparian areas specified in FPPR S. 47 to 53. At the cutblock level, the AVCFC has record of such areas. These riparian widths/areas can be measured and verified against those specified within the written and signed rationale.
- 2. The result/strategy is consistent with the objective set by government because:
 - It adopts the FPPR practice requirements associated with this objective as results or strategies under this FSP.
 - Where exceptions to those adopted results/strategies exist, (i.e. riparian widths, restrictions in a riparian management zone, and basal area retention) the FPPR Schedule 1 S. 2 riparian factors are relied upon as a test for acceptability of the exception. A written rationale, signed by a qualified professional supporting the exception, will address all of the riparian factors, and form a test of consistency with the objective set by government.
- 3. The result/strategy is consistent with timber harvesting rights granted by government because it applies to primary forest activities under the control of the AVCFC.
- 4. Additional information for the Delegated Decision Maker to consider:
- a) Written Rationale

As above, the results/strategies associated with riparian widths, restrictions in a riparian management zone, and basal area retention rely on the FPPR Schedule 1 S. 2 riparian factors as a test for acceptability of the exception. A written rationale signed by a qualified professional supporting the exception, will address all of the riparian factors, and form a test of consistency with the objective set by government. This ecological rationale will address the FPPR Schedule 1 S. 2 riparian factors:

- a) The type of management regime that is required for a riparian area, having regard to:
 - (i) The need to buffer the aquatic ecosystem of a stream, wetland or lake from the introduction of materials that are deleterious to water quality or fish habitat.
 - (ii) The role played by trees and understory vegetation in conserving water quality, fish habitat, wildlife habitat and biodiversity,
 - (iii) The need to maintain stream bank and stream channel integrity,
 - (iv) The relative importance and sensitivity of different riparian classes of streams, wetlands, and lakes in conserving water quality, fish habitat, wildlife habitat and biodiversity;
 - (v) The type, timing or intensity of forest practices that can be carried out within the context of a management regime referred to in i) above;
 - (vi) The role of forest shading in controlling an increase in temperature within a temperature sensitive stream, if the increase might have a

deleterious effect on fish or fish habitat.

- b) Varying Riparian Widths: Examples There are situations where it may be deemed to be ineffective to simply follow the riparian widths specified in FPPR (or HLUP), and where increasing or decreasing a specific riparian reserve area may be required. Some examples follow.
 - i) Areas of high windthrow potential estimated to cause:
 - introduction of materials that are deleterious to water quality or fish habitat:
 - destabilization of stream bank and stream channel integrity.
 - ii) Where harvesting techniques in second growth stands can improve riparian biodiversity and stream condition, such as:
 - Thinning of high density conifer stands to create conifer riparian forests comprised of fewer, larger trees that function better to maintain stream bank and stream channel integrity (FPPR Schedule 1 S. 2(a)(iii));
 - Thinning of high density alder stands to release conifer understory to create conifer riparian forests comprised of fewer, larger trees that function better to maintain stream bank and stream channel integrity (FPPR Schedule 1 S.2(a)(iii));
 - Thinning of high density alder stands, and planting to create conifer riparian forests comprised of fewer, larger trees that function better to maintain stream bank and stream channel integrity (FPPR Schedule 1 S. 2(a)(iii));
 - Thinning for forest health, e.g. thinning of root rot infested riparian forests and under-planting/replacing with root rot resistant species.
 - iii) Where patch openings mimic natural disturbance dynamics and help to form greater biodiversity and habitat niches (FPPR Schedule 1 S. 2(a)(ii)).
 - iv) High capacity streams/limiting or critical habitat stream reaches.
 - v) Erodible or sensitive soils (all stream classes).
 - vi) Unstable gully streams with coupling potential.
 - vii) Low bench floodplains.
 - viii) Temperature sensitive streams.
 - ix) Bedrock controlled, entrenched, or confined streams.
 - x) Boulder/cascade streams.
 - xi) Reasons of worker safety
- c) Varying Riparian Widths: Relative Need of Stream Classes, Lakes or Wetlands The relative need for riparian reserves may be compared between different classes of stream, lake, or wetland. The AVCFC may consider (but is not limited to) the following components of the ecological rationale when comparing the relative riparian reserve zone needs between stream classes, lakes or wetlands:
 - Stream Capacity (FPPR Schedule 1, S. 2(a)(i) and (iv)), i.e. level of use, fry density, spawner density;

- Species at risk (FPPR Schedule 1, S. 2(a)(ii));
- Geomorphic sensitivity indicators (FPPR Schedule 1, S. 2(a)(i), (iii) and (iv)),
 e.g. Lacustrine (L)/glaciolacustrine (LG), Marine (W) or glaciomarine (WG),
 Fluvial (\$sF) or glaciofluvial (\$cFG) with silty to clayey texture, Till (sM) with silty to clayey texture (\$cM), Eolian (E), and Organic (O);
- Environmental Sensitivity e.g. Es1 and Es2, slopes >60%, or Terrain Classes IV & V;
- Windthrow hazard and consequence (FPPR Schedule 1 S. 2(a)(i), (iii) and (iv))
- Connectivity (FPPR Schedule 1 S. 2(a)(ii))
- Logging history (FPPR Schedule 1 S. 2(b))
- Level of planned harvest (FPPR Schedule 1 S. 2(b))
- Forest/Riparian Health (FPPR Schedule 1 S. 2(a)(ii) and (iii))
- d) Factors outside of the cutblock Where there are issues for areas adjacent to but outside of a cutblock that could affect the riparian area within the cutblock, they will be taken into consideration by the qualified professional providing the written rationale.
- e) Basal Area Retention

It is the view of the AVCFC that percentage of basal area retention within a riparian management zone should be based on specific site level information rather than a specified number. This information will be specified and prescribed in the written rationale signed by a qualified professional, prior to commencement of the primary forest practices.

f) Additional information to be considered:

FREP, Jan 2011: Extension Note # 17 State of Stream Channels, Fish Habitats, and Adjacent Riparian Areas: Resource Stewardship Monitoring to Evaluate the Effectiveness of Riparian Management, 2005-2008. http://www.for.gov.bc.ca/hfp/frep/publications/extension_notes.htm

Objectives, Strategies and Results apply to these Forest Development Units

Sproat $\sqrt{}$

Taylor √

5.2.4 Community Watersheds

5.2.4	Objectives set by government for water in community watersheds (FPPR S. 8.2)	Community Watersheds
Description	The entire FSP area is within the Sproat L last CWAP update for the watershed was for Weyerhaeuser.	

The result and strategy is consistent with objectives and strategies contained in section 13.3.2 and 13.3.3 of the AVCF Management Plan and is consistent with the objectives and intent of the water quality [3(2)], roads [3(3)], riparian buffer [3(4)] and Landslide Hazard [3(5)] standards contained in the Hupacasath Land Use Plan.

- 1. The result/strategy is measurable or verifiable because:
 - The environmental indicators are measured and tracked as Equivalent Clearcut Area (ECA), road density, and mass wasting potential as defined by the 1995 CWAP guidebook and the 1999 CWAP guidebook, and are measurable or verifiable.
 - The environmental indicators are derived from a Geographic Information System (GIS)
 map base, information managed within the community watershed. The environmental
 indicator outputs from a GIS (which is primarily area, lengths, and elevation) are
 measurable or verifiable.
 - The result/strategy outlines that calculation methodology and environmental indicators used to determine risk to aquatic resources are specified in the 1999 Coastal Watershed Assessment Procedure Guidebook (CWAP), which are measurable or verifiable.
 - Community Watersheds listed in this FSP are consistent with those supplied by government.
- 2. The result/strategy is consistent with the objective set by government because:
 - Monitoring of key environmental indicators listed the 1999 Coastal Watershed
 Assessment Procedure Guidebook (CWAP) has been seen by government as an
 effective means of managing risks of cumulative hydrological effects of road construction
 and cutblock harvesting that could result in a material adverse impact on water quality
 and quantity.
- 3. The result/strategy is consistent with the timber harvesting rights granted by the government because:
 - It applies to road construction and cutblock harvesting activities under the control of the AVCFC.
- 4. Additional information for the Delegated Decision Maker to consider:
 - f) Relationship to practice requirements, government objectives, and other results/strategies in the FSP Through FPPR Practice Requirements (e.g. FPPR S. 35, 37, 38, 39, 40, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 72, 73, 74, 75, 76, 79, and 82 which have either direct or indirect affect on water quality and quantity), combined with the management guidelines outlined in this FSP (using key indictors from the Coastal Watershed Assessment Procedures), and combined with the other results/strategies in

this FSP, the risk of road construction and cutblock harvesting to community watersheds can be managed at a level consistent with the objectives set by government.

g) ECA Indicator

Currently, components of the *Coastal Watershed Assessment Procedure (CWAP) Guidebook, Second edition, Version 2.1, 1999* are used when considering cumulative hydrological effects. Although ECA is only one indicator of potential cumulative hydrological effects on watershed health, ECA is a reasonable initial indicator to determine proceeding with additional monitoring. ECA has been used as a limit on watershed units and has been a standard strategy for limiting increases to potential peak flow since the introduction of the CWAP guidebooks (1995, 1999).

h) Road Density

As per the 1995 and 1999 Coastal Watershed Assessment Procedures, when calculating road density, roads that have been confirmed as being permanently deactivated are not included in the road density calculations. It is understood that road deactivation, especially for those with risk, is beneficial to hydrological function of a watershed or sub-basin.

- Estimating Primary Forest Activities Material Adverse Impacts
 The term "estimated" is used in the result/strategy in the context of determining if primary
 forest activities resulted in material adverse impacts because it is sometimes difficult to
 determine if changes in channel morphology (or other influences on fish habitat) are the
 result of natural or anthropogenic influences. In most cases, a comparison of similar
 adjacent stream reaches (that include reaches potentially affected by cutblock
 harvesting and road construction as well as reaches where no harvesting activities have
 occurred) is made to determine the likelihood of material adverse impacts due to primary
 forest activities.
- Defining Cumulative Low to Moderate Risk for adverse Hydrological Effects For a guide in defining cumulative low to moderate risk thresholds for adverse hydrological effects, the AVCFC proposes to use CWAP scores derived from each of the major environmental indicators and organize them into a risk summary table. Average resultant scores between 0 and 0.3 would be defined as a low risk of cumulative hydrological impacts. Average resultant scores between 0.3 and 0.6 would be defined as moderate risk, with 0.6 being in the upper range of moderate. The table is used as a guide because there may be instances where a single score may be significantly high as to place extra consideration on that environmental indicator. In these instances, professional judgment will be required.

Figure 1. Cumulative Risk Table

Impact	Indicator Low ← Risk → Risk								Final	Ris					
Category			0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	Score	
Peak Flow	Rd. km/sq.km	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.7	>3.0	0.38	Lo	
Surface Erosion	Rd. km/km²	0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.7	>3.0	0.38	Lo	
Peak Flow Index	ECA	0.00	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48	0.54	>0.60	0.27	Lo	
Mass Wasting	% logged Class > 60%	0	1	2	3	4	5	6	7	8	9	> 10	0.00	Lo	
	# Landslides	0	0.2	0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8	> 2.0	0.10	Lo	
1	# Lanslides hiiting MS	0	0.4	0.8	1.2	1.6	2	2.6	3.2	3.8	4.4	> 5.0	0.02	Lo	
	Km/km² road in >60%	0	0.03	0.06	0.09	0.12	0.15	0.2	0.25	0.3	0.35	>0.40	0.00	Lo	

• Cumulative Effects

Monitoring the risk to water quality and quantity is completed most efficiently by assessing the cumulative effects of the key indicators outlined in the CWAP. The key indicators are peak flow (index = roads), surface erosion (index = roads), peak flow index (index = ECA), and mass wasting potential (indices = logging, landslides, and roads). Road measurements do not include roads that have been permanently deactivated.

i) Registered Community Water Licenses:

Watershed	Area Identifier	Area of Concern	LU
Sproat	930.021	35,427.8 ha	Sproat

The following water licenses are located within the two FDU's.

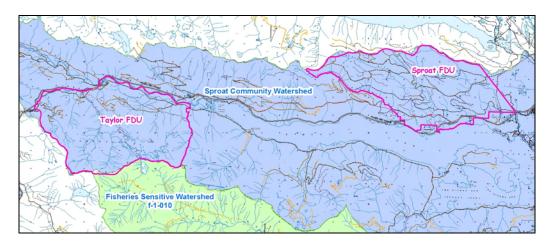
Sproat FDU		Taylor FDU		
Licence No.	Purpose	Licence No.	Purpose	
C034482	Domestic	C115710	Power	
F043945	Domestic	C115539	Power	
F043946	Domestic			

In addition there are multiple water licence holders along the lakeshore adjacent to the Sproat FDU who draw water from Sproat Lake.

• Other licensees

The AVCFC will work in cooperation with other license holders working in the same watershed to ensure that all operations are monitored.

Designated Community Watersheds within the FSP Area:



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 level [FPPR S. 9] Wildlife and Biodiversity – landscape level

The result and strategy is consistent with objectives and strategies for landscape level biodiversity contained in the Management Plan section 13.3.9.2.

- 1. The result/strategy is measurable or verifiable because:
 - For the landscape level objectives, the AVCFC adopts sections 64 and 65 of the FPPR as results or strategies. The result/strategy is therefore measurable or verifiable against the practice requirements.
- 2. The result/strategy is consistent with the objective set by government because:
 - The landscape level strategy allows for cutblock size for the portion of the FDU that is within SMZ 17 to be managed in accordance with VILUP Objective 1 (c) or 2.
- 3. The result/strategy is consistent with timber harvesting rights granted by government because:
 - The result/strategy applies to harvesting activities under the control of the AVCFC.

Objectives Strategies and Results apply to these Forest Development	Sproat √
Units:	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

The result and strategy is consistent with objectives and strategies for stand level biodiversity contained in the Management Plan (13.3.9.3) and the standards 3(7) for variable retention contained in the Hupacasath Land Use Plan.

- 1. The result/strategy is measurable or verifiable because:
 - For the stand level objectives, wildlife tree retention will be in accordance with the minimum retention specified in RLUPS database dated August 15, 2005 (scrub out) or with S 66 of the FPPR. This information is readily available.
 Section 67 of the FPPR is adopted by the AVCFC as a result/strategy. This practice requirement is readily verifiable.
- 2. The result/strategy is consistent with the objective set by government because:
 - The stand level result/strategy describes a strategy that is established in order to meet expectations in Landscape Unit Planning.
- 3. The result/strategy is consistent with timber harvesting rights granted by government because:
 - The result/strategy applies to harvesting activities under the control of the AVCFC.

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

5.2.7 Cultural Heritage Resources

5.2.7	Objectives set by government for cultural heritage resources [FPPR S. 10]	Cultural Heritage Resources
Description	The AVCF lies within the asserted traditional territories of the Hupacasath and Tseshaht First Nations. The Hupacasath territory encompasses the entire community forest; while the Tseshaht have asserted that an area of west Klitsa Creek is in their traditional territory. Representatives of the Hupacasath and Tseshaht First Nations sit on the Board of Directors for the Alberni Valley Community Forest Corporation.	

The result/strategy is consistent with commitments, objectives and strategies for cultural heritage resources contained in the AVCF Management Plan (11.7 and 13.3.5) and with standards and expectations contained in the Hupacasath Land Use Plan.

- 1. The result/strategy is measurable or verifiable because:
 - It outlines that the strategy applies to the AVCFC;
 - It involves ongoing referral of proposed development to the Hupacasath and Tseshaht First Nations to assist in identification of special cultural heritage resources (which are defined in the result/strategy).
 - It sets out a process to follow deciding whether a special cultural heritage resource (CHR) is to be conserved or protected. Once a decision on protection or conservation is made, parameters are set for conducting harvesting or road construction activities in the vicinity.
 - It relates to the Hupacasath and Tseshaht First Nations.
 - Mature cedar and cypress are identified as special cultural heritage resources: whether the AVCFC has provided the most recent cedar/cypress inventory and/or updates is verifiable; where cedar and cypress are planted is verifiable.
 - Whether the AVCFC has assisted First Nations, who have requested, in developing a strategy for and in the identification of western red cedar or cypress for monumental art within their traditional territory is measurable and verifiable.
- 2. The result/strategy is consistent with the objective set by government because:
 - It commits the AVCFC to road construction and cutblock harvesting activities that are consistent with the objective;
 - It commits to communication about potential cultural heritage resources with the affected First Nations; involving the referral of potential timber harvesting and road construction and requesting information on special cultural heritage resources.
 - A process for conservation or protection of the special cultural heritage resources is laid out.

- It focuses on conservation or protection of special cultural heritage resources that meet the definition, are threatened by primary forest activities, are not otherwise conserved or protected, and are capable of being addressed in the context of the FSP:
- If outlines a strategy for addressing potential cultural heritage resources that may be discovered during road construction or harvesting activities;
- The 5 factors in FPPR Schedule 1 S. 4; were considered in its development.
- 3. The result/strategy is consistent with timber harvesting rights granted by government because:
 - It relates the actions taken or authorized by the Holder(s) of the FSP in respect of the cultural heritage resources objective to road construction and cutblock harvesting.
 - It commits the AVCFC to assisting the Hupacasath and the Tseshaht First Nations in identifying western red cedar and cypress for monumental art within their traditional territories, if requested.
- 4. Additional information for the Delegated Decision Maker to consider:
- a) The Cultural Heritage Strategy

This strategy outlines a series of steps that address how the AVCFC will respond to special cultural heritage resources, and potential special cultural heritage resources prior to and during road construction and cutblock harvesting activities under this FSP.

This strategy recognizes the importance of maintaining tangible or spatial ties so that those objects, sites or locations deemed special cultural heritage resources can be adequately conserved or protected.

Identification of special cultural heritage resources includes annual referral of potential harvest and road construction activities to First Nations. Subsection 2 does not limit how a potential special cultural heritage resource is identified. Subsection (3) states that identification of site-specific cultural heritage resources includes information sharing and/or consultation with First Nations. It is anticipated that this information will come through a variety of sources including information summarized in the report entitled *Potential Cultural Heritage Resources in the Arrowsmith TSA* and the associated map product, communication with MNRO, communication and information exchange with First Nations, MNRO consultation with First Nations, etc.

The AVCFC understands that it is beneficial to communicate with First Nations early in planning and expects that information sharing and consultation will not be limited to one year at a time, but will take into consideration whatever information is available.

It is noted that both the Hupacasath and Tseshaht First Nations sit on the board of directors of the Alberni Valley Community Forest Corporation.

b) Information Exchange in Respect of the draft FSP

On January 18, 2011, the AVCFC Manager initiated information exchange specific to the FSP process with the Hupacasath and Tseshaht First Nations by way of a letter. The letter:

- Invited the First Nation to review and comment on the draft FSP;
- Outlined the FRPA obligations contained within the FSP with respect to the objectives set by government including for cultural heritage resources;
- Outlined reliance on information gathered during the FSP consultation process;
- Explained the review and comment period and estimating the timeframe for it;

Exchange of information between the AVCFC and the two First Nations are specific to each working relationship. Some of these relationships may be guided by a Memorandum of Understanding (MOU), which would be developed, separately from the FSP.

The AVCFC appreciates the importance and value of communication with the Hupacasath and Tseshaht First Nations. The holder of the FSP will follow the terms of any interim measures agreements signed by government as they apply to them. The AVCFC will follow the terms of any MOUs in effect or developed within the term of this FSP to which they are signatory.

In addition, the government has a legal obligation to consult with First Nations on operational plans.

c) Information Roll-up in Respect of the FSP

The AVCFC realizes that identification of cultural heritage resources is integral to following the result/strategy and thereby being consistent with the objective. The AVCFC also recognizes:

- More work needs to be done to have special cultural heritage resources identified;
- Special cultural heritage resources may be specific to a First Nation and a geographic location.
- There is an obligation to consider cultural heritage resources previously identified by First Nations under the objective set by government for cultural heritage resources.

The summary report, entitled *Potential Cultural Heritage Resources in the Arrowsmith TSA*, develops an inventory base for potential CHR. The intent is to provide the ground work for an ongoing information exchange process among licensees, BC Timber Sales, MNRO, and First Nations to facilitate a current and complete set of information.

Many of the cultural values that have been identified within the project have great potential to be conserved, or if necessary protected, through the legislated objectives, practice requirements and/or operational plans (FSP). Cultural heritage resources (a component of cultural values) have been singled out from the other forest values in the legislation and require development of their own set of results or strategies within the FSP. This information will be considered during planning of cutblock and road layout.

d) Relationship to other results/strategies in the FSP and Objectives Actions taken by the AVCFC with respect to the strategies and objectives set by government for soils, timber, wildlife, visuals, riparian, and biodiversity, etc. also relationship to the strategy

in respect of the CHR objective set by government.

It is expected that actions taken under this CHR strategy will tie strongly to commitments made and actions taken in respect of other parts of the FSP. This concept is consistent with the findings of the *Potential Cultural Heritage Resources in the Arrowsmith TSA* Report.

Commitments made and actions taken in respect of objectives set by government, Higher Level Plans, Orders, and other planning processes for forest resource values may also contribute to conservation and/or protection of Cultural Heritage Resources.

e) Cedar and Cypress

The AVCFC is aware of the Coast Forest Region *Guidelines for Managing Cedar for Cultural Purposes* (January 2005). The AVCFC is also aware that some First Nations are working on strategies for managing cedar within their traditional territories. The AVCFC is willing to participate in development of these strategies in concert with First Nations, other licensees, and the Ministry of Natural Resource Operations.

Should a cedar strategy be developed for areas within the FDUs, and agreed upon by the Ministry of Natural Resource Operations, First nation(s) and the AVCFC, the AVCFC will also assist in the implementation of the strategy. Until a strategy is developed, it is difficult to say what role the AVCFC will play. However, some things that could be included are identification and protection of a component of accessible monumental cedar and yellow cypress trees, identification of recruitment areas for cedar and cypress, etc.

The Hupacasath FN, ILMB and BCTS have been working to identify cedar and cypress for cultural purposes within potential old growth management areas. The Hupacasath Land Use Plan for the Sproat and Taylor areas includes strategies and standards for identifying, managing and protecting cultural heritage resources including cedar and cypress.

The Ministry of Natural Resource Operations and ILMB is in discussion with Tseshaht First Nation regarding development of a cedar strategy.

f) Herbicide Use: First Nations have expressed concern related to the health of wildlife, and plants a berries gathered from those sites as well as potential impacts on water quality, over the potential use of herbicide. The AVCFC Management Plan section 11.8.1 provides for the potential use of herbicide under restricted conditions.

Some invasive plants, as listed in the *Invasive Plant Regulation* of *FRPA*, have begun to appear within the general area of the FDUs. Some of these plants (in particular, knotweeds) are resistant to manual methods of eradication and introduce risk in particular should they reach riparian areas.

Should the AVCFC wish to apply a herbicide to an area within the FDU, a Pest Management Plan would be required.

Referral of these plans to First Nations would occur at that time.

g) Karst – Concern has been expressed regarding protection of karst features in relation to cultural sites and water quality. The AVCFC will use the Karst management Handbook for British Columbia in developing cutblocks and roads in order to mitigate impacts to karst. A karst evaluation by a qualified professional is conducted where significant karst features are encountered in the field. h) Access management – Interest has been expressed with regards to maintenance of access for exercising aboriginal rights. AVCFC has committed to ongoing referral of proposed harvesting and road construction operations. Potential road deactivation could also be discussed at these meetings. In some cases, roads may have to be deactivated for environmental reasons – or, they may be planned as short-term access only.

Objectives Strategies and Results apply to these Forest Development Units:

Sproat √

Taylor √

5.2.8 Recreation

5.2.8 Interpretative forest sites, recreation sites and recreation trails [FRPA 56(1)]

This section and associated objectives, results and strategies were added to the FSP to reflect the high interest in recreation trails and recreation opportunities and values expressed during the public input received during the FSP review. By including them in the FSP their importance is recognised and formally highlighted.

Objectives Strategies and Results apply to these Forest Development Units:

Sproat √

Taylor √

5.3 Objectives Established under the GAR

5.3.1 Visual Quality Objectives for the South Island Forest District

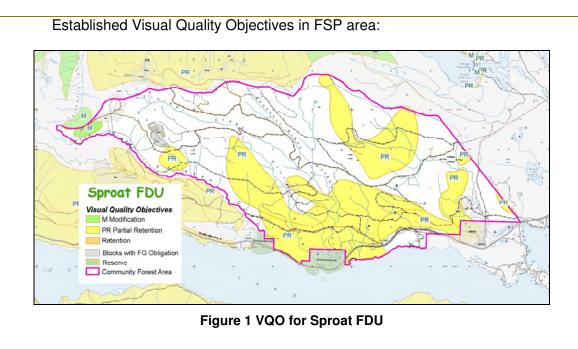
5.3.1 Objectives Established under the Government Actions Regulation Visual Quality Objectives

The result/strategy is consistent with Visual Landscape Objectives and strategies described in section 13.3.6 of the AVCF Management Plan.

- 1. The result/strategy is measurable or verifiable because:
 - It outlines that the AVCFC will only carry out forest practices if each cutblock and road is designed to be consistent with applicable visual quality objectives;
 - The result/strategy applies within the scenic areas as established in the South Island Forest District on November 13, 1998.
- 2. The result/strategy is consistent with the objective set by government because:
 - It outlines that the result/strategy applies on within the scenic areas as established in the South Island Forest District on November 13, 1998;
 - It commits that forest practices within the AVCFC's control will be designed and carried out to be consistent with the visual quality objectives in scenic

areas. The AVCFC's intent is to have cutblocks and road designs evaluated to ensure visual quality objectives are met prior to the commencement of operations.

- 3. The result/strategy is consistent with timber harvesting rights granted by government because:
 - It applies to forest practices under the control of the AVCFC
- 4. Additional information for the Delegated Decision Maker to consider:
 - The Visual Quality Objectives (VQOs) were set pursuant to GAR S. 7(2) for the South Island Forest District by Order to Establish Visual Quality Objectives for the South Island Forest District effective December 15, 2005, as shown on the map titled South Island Forest District, Visual Quality Objectives Established Under Section 7(2) GAR order, dated December 1, 2005.



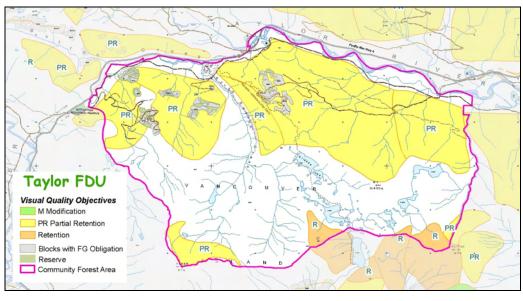


Figure 2 VQO for Taylor FDU

Objectives Strategies and Results apply to these Forest Development Units:

Sproat $\sqrt{}$

5.3.2 Karst

5.3.2 Resource Feature Order (Dec 11, 2009) Karst

The result/strategy is consistent with the GAR order and is measurable or verifiable because it commits the AVCF to adopting the existing practice requirements and reporting any new discoveries of karst features.

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

5.4 Measures

5.4.1 Measures to prevent the introduction and spread of invasive plants

5.4.1 Measures to Prevent the Introduction and Spread of Invasive Plants

These measures are consistent with best practices for preventing the introduction and spread of invasive plants.

These measures apply to these Forest Development Units: Sproat $\sqrt{}$ Taylor $\sqrt{}$

5.4.2 Measures Related to Natural Range Barriers

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

There are currently no range agreements within either of the FDU's included in this FSP.

These measures apply to these Forest Development Units: Sproat $\sqrt{}$

6.0 Stocking Standards

6.0 Stocking Standards

- The stocking standards are based on the Vancouver Forest region Reference Guide for FDP Stocking Standards (Nov 12, 2010) and the Chief Foresters Guidance on Tree Species Composition at the Stand and Landscape Level, Chief Forester memos regarding broadleaf management.
- Alternative species for root rot treatment have been included.
- BEC zones and variants not included within the AVCF licence area have been excluded.
- The stocking standards are consistent with the AVCF Management Plan and Hupacasath Land Use Plan.

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

7.0 Referral and Review

The referral and review process for the FSP began on January 18, 2011 and will ran for 60 days until March 18, 2011. This process included direct referral of the plan to First Nations and various stakeholders, public advertising in the Alberni Valley Times on January 18 and 21, and an open house held at the Sproat Lake Community Hall on February 3, 2011. Comments needed to be received by March 18, 2011 for consideration in the preparation of the final version of the FSP. All comments received have been included in a separate review and comment document that has been included with the FSP submission.

The direct referral list included the following individuals and organizations:

- Tseshaht First Nation
- Hupacasath First Nation
- Alberni-Clayoquot Regional District
- City of Port Alberni
- Sproat Lake Community Association
- Ministry of Natural Resource Operations, SIFD, Port Alberni
- Ministry of Environment, Port Alberni
- Trapline holder TR0107T407
- Sean Lind Canadian Guide Outfitters Ltd (Sproat FDU)
 Darren deLuca (Taylor FDU) also Vancouver Island Guide Outfitters
- Alberni Valley Outdoors Club
- Western Forest Products Limited
- BC Timber Sales, Port Alberni
- Island Timberlands LP

The input received did not result in any significant changes to the FSP strategies or results however the issues identified were referred to the AVCF Board and Manager for further consideration and discussion.

8.0 Revisions

A list of revisions made to the draft FSP as a result of the referral and review process have been listed in the final submission version. Changes made to this document are listed below:

Cover page:

- update submission date
- update signing authority
- remove page number (start page numbering at TOC)

Table of Contents:

• update to reflect page numbering and other changes

Page 4: 2.0 Date of Submission

• update reference to Ministry of Forest Land and Natural Resource Operations

Page 29

correct heading 5.2.6 to read "Stand Level"

Page 37

- update section 9.0 to reflect completion of review and comment period.
- add list of document revisions.

Further to these changes, additional changes were made to the March 25, 2011 version after review and comment by the South Island Natural Resource District and form the basis for this final consolidation version dated May 10, 2011. A detailed list of these changes is contained in the main FSP document. The changes made to this document parallel the FSP changes and pertain mainly to the reorganization of the sections due to the addition of sections for recreation and karst, the transfer of measures to section 5 and the subsequent renumbering of sections 9-11 to 7-9.

9.0 Copies of Legal Objectives

The following documents related to FSP will be appended for reference purposes.

- Old Growth Order Implementation Policy
- Order Establishing Sproat Lake Landscape Unit
- Vancouver Island Land Use Plan Higher Level Plan Order
- 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
- Community Watershed Reference Documents
- Letter Clarifying the Nature of Licensee's Obligations Regarding Scenic Area Management In SIFD
- Order to Establish Visual Quality Objectives for the South Island Forest District

Order Establishing Provincial Non-Spatial Old Growth Objectives

Order

- I. Pursuant to section 4(1) of the Forest Practices Code of British Columbia Act (Act), the landscape units listed in Appendix 1, Table 1 are established as landscape units.
- II. Pursuant to section 4(2) of the Act, part A of this Order establishes landscape unit objectives for the landscape units listed in Appendix 1, Table 1.
- III. This Order does not apply to land contained within a woodlot licence, an area contained in a community forest agreement that is less than 600 hectares, or to areas defined as the 'trust area' as per the *Islands Trust Act* with the exception of Gambier and Anvil Island.

A. Biodiversity emphasis and old growth objectives

1. Biodiversity emphasis for landscape units

For the purpose of implementing objective 2 below, biodiversity emphasis is assigned as listed in Appendix 1, Table 1.

2. Old growth objectives

To contribute to the conservation of biodiversity, licensees¹ must maintain old forest by biogeoclimatic variant² within each landscape unit according to the age of old forest and the percentage of old forest retention that is specified in Tables 1 through 4 and the assignment of Natural Disturbance Types outlined in Appendix 3, and subject to provisions 5 through 9 below.

¹ In this Order, "licensee" refers to a party required to prepare a forest development plan under the *Forest* Practices Code of British Columbia Act or a forest stewardship plan under the Forest and Range Practices Act with the exception of any agreement holder mentioned in III above.

As approved by the Regional Director of MSRM, see the attached Implementation Policy.

Table 1. Natural Disturbance Type One

Biogeoclimatic Zone	Age of Old Forest	Percent Old Forest Retention in Low Biodiversity Emphasis	Percent Old Forest Retention in Intermediate Biodiversity Emphasis	Percent Old Forest Retention in High Biodiversity Emphasis
CWH ^a	>250yrs	>13	>13	>19
ICH	>250yrs	>13	>13	>19
ESSF	>250yrs	>19	>19	>28
MH	>250yrs	>19	>19	>28

a Some portions of the CWH have a much more frequent disturbance history due to extensive windthrow. Those portions of the CWHvm1, CHWvm2, CWHvh1, and CWHvh2 where wind event occur, should be considered to fall under NDT3.

Table 2. Natural Disturbance Type Two

Biogeoclimatic Zone	Age of Old Forest	Percent Old Forest Retention in Low Biodiversity Emphasis	Percent Old Forest Retention in Intermediate Biodiversity Emphasis	Percent Old Forest Retention in High Biodiversity Emphasis
CWH	>250yrs	>9	>9	>13
CDF	>250yrs	>9	>9	>13
ICH	>250yrs	>9	>9	>13
SBS	>250yrs	>9	>9	>13
ESSF	>250yrs	>9	>9	>13
SWB	>250yrs	>9	>9	>13

Table 3. Natural Disturbance Type Three

Biogeoclimatic Zone	Age of Old Forest	Percent Old Forest Retention in Low Biodiversity Emphasis	Percent Old Forest Retention in Intermediate Biodiversity Emphasis	Percent Old Forest Retention in High Biodiversity Emphasis
BWBS ^b	>100yrs	>13	>13	>19
SBPS	>140yrs	>7	>7	>10
$BWBS^{c}$	>140yrs	>11	>11	>16
SBS	>140yrs	>11	>11	>16
MS	>140yrs	>14	>14	>21
ESSF	>140yrs	>14	>14	>21
ICH	>140yrs	>14	>14	>21
CWH^d	>140yrs	>11	>11	>16

b BWBS with deciduous prominent

Table 4. Natural Disturbance Type Four

Biogeoclimatic Zone	Age of Old Forest	Percent Old Forest Retention in Low Biodiversity Emphasis	Percent Old Forest Retention in Intermediate Biodiversity Emphasis	Percent Old Forest Retention in High Biodiversity Emphasis
ICH IDF PP	>250 yrs >250 yrs >250 yrs	>13 >13 >13	>13 >13 >13	>19 >19 >19 >19

3. Old growth objectives for the Okanagan area

To contribute to the conservation of biodiversity in the Okanagan area³ licensees must maintain old forest by biogeoclimatic variant within each landscape unit to the amount specified in Appendix 2, Table 1 (Okanagan Old Forest Retention Table), subject to provisions 6-8 below.

4. Old growth objectives for the Merritt area

To contribute to the conservation of biodiversity in the Merritt area⁴ licensees must maintain old forest by biogeoclimatic variant within each landscape unit to the amount specified in Appendix 2, Table 2 (Merritt Old Forest Retention Table), subject to provisions 6-8 below.

c BWBS with coniferous prominent

d CWH subject to regular extensive wind throw disturbance. See notes under NDT 1 table for a listing of variants.

 ³ See Appendix 1 Map 7 Okanagan Timber Supply Area
 ⁴ See Appendix 1 Map 8 Merritt Timber Supply Area

5. Potential reduction in old forest retention in low biodiversity emphasis areas

For landscape units with a low biodiversity emphasis, the old forest retention percent listed in Tables 1-4 may be reduced by up to 2/3, to the extent necessary to address impacts on timber supply.⁵

6. Use of younger forests to meet old forest objectives

In intermediate and high emphasis landscape units where it can be demonstrated that equal or better conservation benefits would result, stands less than the age of old, and preferably mature forest, may contribute to the percentage of old forest retention defined in Tables 1-4.

In the Okanagan and Merritt areas where it can be demonstrated that equal or better conservation benefits would result, younger stands and preferably mature forest, can be used to meet the area requirements listed in Tables 1 and 2, Appendix 2.

7. Recruitment and catastrophic natural disturbances

In landscape units where there is:

- a. An immediate recruitment situation due to insufficient old forest in a variant; or
- b. An epidemic or catastrophic natural event such as wildfire or insects

A recruitment strategy approved by the Minister of Sustainable Resource Management or his delegate⁷ can be used to meet the requirements of Objective 2, 3 and 4.8

8. Draft old growth management areas

Where the Minister of Sustainable Resource Management, his delegate, or a licensee or group of licensees has identified draft old growth management areas, the Minister or delegate may specify in writing that these draft old growth management areas meet the intent of this Order⁹.

9. Pilot project regulation areas

For the area encompassed by the Fort St John, Riverside and Stillwater pilot project regulations, the Minister of Sustainable Resource Management or his delegate may specify in writing the sections of the approved Sustainable Forest Management Plan¹⁰, or other approved operational plan as required under the pilot regulation which meets the intent of this Order.

⁵ See Implementation Policy for further guidance on reductions in percent retention in low biodiversity emphasis areas.

⁶ See Implementation Policy for further technical information regarding the use of younger stands.

⁷ Delegate is defined in the delegation memo from the Minister of SRM to regional directors July 2002 Reference: 29048, and as will be amended from time to time.

⁸ See Implementation Policy for guidance on recruitment.

⁹ This requires that the draft old growth management areas are retained or managed for old forest values.

¹⁰ Approved is defined in section 39 of the Fort St John Pilot Project regulation.

B. Effective date and future orders

This Order comes into effect June 30, 2004.

For the purposes of the *Forest Practices Code of British Columbia Act*, all new forest development plans and all major amendments to forest development plans submitted 4 months after the effective date of this Order must be consistent with the Order.

This Order does not affect Category A cutblocks approved pursuant to the *Forest Practices Code of British Columbia Act* on or before the effective date.

For the purposes of the *Forest and Range Practices Act*, and despite subsection 16(2) of that Act, all forest stewardship plans submitted after the effective date must be consistent with this Order.

When a new order of the Minister of Sustainable Resource Management or delegate establishes old forest objectives, this Order will, on the effective date of the new order, cease to have effect for the area or areas affected by old forest established in the new order.

Where a new order of the Minister of Sustainable Resource Management or delegate establishes old forest objectives for a portion of a landscape unit that is established under this Order, this Order remains in effect for the portion of the landscape unit for which the new order does not establish old forest objectives.

C. Continuous effect of previously established old growth objectives

This Order does not apply to spatially located old growth management areas or non-spatial old growth objectives established in a higher-level plan prior to the effective date of this Order under either section 3 or section 4 of the *Forest Practices Code of British Columbia Act*.

D. Review of the Order

The Minister of Sustainable Resource Management recognizes that new information will emerge regarding the role of old forest in the maintenance of biodiversity, the efficacy of the objectives in this Order in that regard, and the economic and social implications of old forest and biodiversity conservation. The minister therefore will review this Order no later than March 31, 2007 to assess its effectiveness in achieving government's sustainable resource management goals.

The Honourable George Abbott

Thory allot

Minister of Sustainable Resource Management

APPENDIX 1 TABLE 1

LANDSCAPE UNIT TABLE

Landscape Unit (LU) Identifier	Landscape Unit (LU) Name	Biodiversity Emphasis (BE)
2	Aaltanhash	Low
3	Adam-Eve	Low
6	Ahnuhati-kwalate	High
7	Ahta	High
8	Aiken	Intermediate
9	Ainslie	High
1469	Akie	Low
1471	Akie River	Low
11	Akolkolex	Multiple
1472	Akue	Intermediate
20	Allison	Low
24	Alouette	Intermediate
29	Anarchist	Multiple
30	Anderson	Intermediate
33	Anstey	Multiple
35	Anyox	Low
1473	Anzac	High
37	Ape	Low
38	Aristazabal	Intermediate
39	Artlish	Intermediate
40	Ash	Intermediate
42	Ashnola	High
1474	Asitka	Intermediate
44	Athlow Bay	Low
45	Atlin Lake	High
46	Atna	Low
1475	Averil	Low
1450	Babine	Intermediate
51	Babine	Intermediate
52	Babine East	Intermediate
54	Babine River	High
55	Babine West	Low
60	Banks	Intermediate
61	Barkley Sound Islands	Low
230	Barrington River	Intermediate
1476	Bastille	Intermediate
69	Bear	Intermediate
1477	Bearhole	Intermediate
71	Beaver	Intermediate
1478	Belcourt	Intermediate
79	Belize	Intermediate
80	Bella Coola	Intermediate
81	Belle Bay	Intermediate
82	Beresford	Intermediate

Landscape Unit (LU) Identifier	Landscape Unit (LU) Name	Biodiversity Emphasis (BE)
1479	Big Beaver	Intermediate
92	Big Eddy	Multiple
93	Big Falls	Low
95	Big Silver	Intermediate
100	Bigmouth	Low
1481	Bill's	Low
103	Billygoat	Intermediate
1482	Birdflat	Low
104	Birkenhead	High
106	Bishop	Intermediate
105	Bishop	Low
1485	Blackwater	Intermediate
1483	Blackwater	Low
117	Blue River	High
1486	Blueberry	Low
1487	Bluff Creek	High
122	Blunt	Low
125	Bonanza	Intermediate
1488	Boreal	Intermediate
1489	Boucher	Low
1490	Bowron	Intermediate
132	Bowser	Low
133	Braden	Low
1491	Braid	High
136	Brem	Intermediate
140	Bridge	Low
143	Brittain	Intermediate
145	Brooks	Low
146	Broughton	Low
147	Brown	Low
148	Brown Bear	Low
149	Buck	Low
1492	Buffalohead	Low
154	Bulkley	Intermediate
155	Bulkley	Intermediate
1493	Bunch	Low
157	Bunster	Intermediate
158	Burman	Low
156	Burnie	High
159	Burnie	High
160	Burns Lake East	Low
161	Burns Lake West	Low
1494	Burnt - Lemoray	Intermediate
167	Bute East	Intermediate
168	Bute West	Intermediate

Landscape Unit (LU) Identifier	Landscape Unit (LU) Name	Biodiversity Emphasis (BE)
	Upper Manson	, ,
1190	Southgate	High
1767	SouthTrench	Intermediate
1768	Spakwaniko	High
1194	Sparkling	Intermediate
1769	Spatsizi	Intermediate
1195	Spatsizi River	Intermediate
1198	Spius	Multiple
1199	Sproat Lake	Intermediate
1821	Spruce Lake	Intermediate
1201	Spuzzum	Low
1770	Squingula	Low
1204	Stafford	High
1206	Stagoo	Intermediate
1771	Stanolind	Low
1208	Stave	Low
1213	Stephens	Low
1214	Stikine River	Intermediate
1772	Stony	Intermediate
1775	Stuart	Intermediate
1773	Stuart	Low
1774	Stuart	Low
1776	Sulpher	Low
23	Summers	Multiple
1226	Sumquolt	Intermediate
1227	Surf	Intermediate
1228	Suskwa	Intermediate
1777	Sustut	Intermediate
1778	Sutherland	Intermediate
1233	Sutslem/Skowquiltz	Low
1822	Swakum	Multiple
1779	Swannell	High
1237	Sweetin	Intermediate
1239	Swift River	Intermediate
1240	Swindle	Low
1780	Table	Intermediate
1781	Tachick	Intermediate
1244	Tahltan River	Intermediate
1245	Tahsis	Low
1246	Tahsish	Intermediate
1247	Tahtsa	Low
1782	Takla	Intermediate
1248	Talchako/Gyllenspetz	Intermediate
1249	Taleomey/Asseek	Intermediate
1250	Taltapin	Low
1252	Tasu	Low
1783	Tatelkuz	Intermediate
1256	Tatshenshini River	Intermediate
1258	Taylor - Damdochax	Intermediate
1785	Tchentlo	Intermediate
1261	Tchitin	High

Landscape Unit (LU) Identifier	Landscape Unit (LU) Name	Biodiversity Emphasis (BE)
1264	Telkwa	Intermediate
1266	Tenas	Intermediate
1786	Tentsi	Intermediate
1268	Teslin River	Intermediate
1787	Tetsa	Low
1271	Texada	Low
1272	Texas Creek	Intermediate
1788	Tezzeron	Low
1789	TFL42	Low
1275	Thautil	High
1277	Thurlow	Low
1790	Thutade	High
1791	Timberwolf	Intermediate
1282	Tintina	Low
1283	Tiell	Intermediate
1284	Tlupana	Intermediate
1285	Toba	High
1288	Tochcha - Natowite	Intermediate
1291	Tolmie	High
1792	Tommy Lakes	Low
1292	Topley	Low
1293	Toquart	Intermediate
1294	Torkelson	Low
1793	Torpy	Intermediate
1298	Trent	Low
1299	Trepanier	Multiple
1302	Tretheway	Intermediate
1304	Trinity	Low
1305	Triotsa	High
1306	Triumph	Low
1309	Trout	Intermediate
1307	Trout Creek	Intermediate
1794	Trutch	Intermediate
1310	Trutch	Low
1313	Tseaux	Intermediate
1314	Tsitika	High
1048	Tsolum	Low
1315	Tsulquate	Intermediate
1795	Tuchodi	Low
1317	Tuck	Low
1796	Tudyah	Intermediate
1319	Tugwell	Low
1320	Tulameen	Multiple
1322	Turnagain River	Intermediate
1798	Tutizza	High
1324	Tutshi River	Intermediate
1325	Tuwasus	Intermediate
1326	Tuya River	Intermediate
1799	Twenty Mile	Intermediate
1330	Twin	Low
1333	Union	Low

Appendix 3

A Table of Biogeoclimatic Units assigned to Natural Disturbance Types

Contains all units mapped in QBEC_BC version 5 (April 2003)¹⁵

NDT BECLABEL	Zone	Subzone	Variant	Phase	SubzoneName	VariantName	PhaseName
5 AT un	AT	un			Undefined		
5 AT unp	AT	unp			Undefined Parkland		
4 BG xh 1	BG	xh	1		Very Dry Hot	Okanagan	
4 BG xh 2	BG	xh	2		Very Dry Hot	Thompson	
4 BG xh 3	BG	xh	3		Very Dry Hot	Fraser	
4 BG xw 1	BG	XW	1		Very Dry Warm	Nicola	
4 BG xw 2	BG	XW	2		Very Dry Warm	Alkali	
3 BWBSdk 1	BWBS	dk	1		Dry Cool	Stikine	
3 BWBSdk 2	BWBS	dk	2		Dry Cool	Liard	
3 BWBSmw 1	BWBS	mw	1		Moist Warm	Peace	
3 BWBSmw 2	BWBS	mw	2		Moist Warm	Fort Nelson	
3 BWBSun	BWBS	un			Undefined		
3 BWBSvk	BWBS	vk			Very Wet Cool		
3 BWBSwk 1	BWBS	wk	1		Wet Cool	Murray	
3 BWBSwk 2	BWBS	wk	2		Wet Cool	Graham	
3 BWBSwk 3	BWBS	wk	3		Wet Cool	Kledo	
2 CDF mm	CDF	mm			Moist Maritime		
2 CWH dm	CWH	dm			Dry Maritime		
2 CWH ds 1	CWH	ds	1		Dry Submaritime	Southern	
2 CWH ds 2	CWH	ds	2		Dry Submaritime	Central	
2 CWH mm 1	CWH	mm	1		Moist Maritime	Submontane	
2 CWH mm 2	CWH	mm	2		Moist Maritime	Montane	
2 CWH ms 1	CWH	ms	1		Moist Submaritime	Southern	
2 CWH ms 2	CWH	ms	2		Moist Submaritime	Central	
1 CWH un	CWH	un			Undefined		
1 CWH vh 1	CWH	vh	1		Very Wet	Southern	
1 CWH vh 2	CWH	vh	2		Hypermaritime Very Wet Hypermaritime	Central	
1 CWH vm	CWH	vm			Very Wet Hypermaritime	Undifferentiated	
1 CWH vm 1	CWH	vm	1		Very Wet Maritime	Submontane	
1 CWH vm 2	CWH	vm	2		Very Wet Maritime	Montane	
1 CWH vm 3	CWH	vm	3		Very Wet Maritime	Central	
1 CWH wh 1	CWH	wh	1		Wet Hypermaritime	Submontane	

_

¹⁵ This list and NDT map is posted at: http://www.for.gov.bc.ca/ftp/hre/external/!publish/becmaps

1 CWH wh 2	CWH	wh	2	Wet Hypermaritime	Montane
1 CWH wm	CWH	wm	Wet Maritime		
2 CWH ws 1	CWH	ws	1	Wet Submaritime	Submontane
2 CWH ws 2	CWH	ws	2	Wet Submaritime	Montane
2 CWH xm 1	CWH	xm	1	Very Dry Maritime	Eastern
2 CWH xm 2	CWH	xm	2	Very Dry Maritime	Western
3 ESSFdc 1	ESSF	dc	1	Dry Cold	Okanagan
3 ESSFdc 2	ESSF	dc	2	Dry Cold	Thompson
5 ESSFdcp	ESSF	dcp		Dry Cold Parkland	
3 ESSFdcw	ESSF	dcw		Dry Cold Woodland	
3 ESSFdk	ESSF	dk		Dry Cool	
5 ESSFdkp	ESSF	dkp		Dry Cool Parkland	
3 ESSFdkw	ESSF	dkw		Dry Cool Woodland	
3 ESSFdm 1	ESSF	dm	1	Dry Mild	Southeast Kootenay
5 ESSFdmp	ESSF	dmp		Dry Mild Parkland	
3 ESSFdmw	ESSF	dmw		Dry Mild Woodland	
3 ESSFdv	ESSF	dv		Dry Very Cold	
5 ESSFdvp	ESSF	dvp		Dry Very Cold Parkland	
2 ESSFmc	ESSF	mc		Moist Cold	
5 ESSFmcp	ESSF	mcp		Moist Cold Parkland	
2 ESSFmk	ESSF	mk		Moist Cool	
5 ESSFmkp	ESSF	mkp		Moist Cool Parkland	
2 ESSFmm 1	ESSF	mm	1	Moist Mild	Raush
2 ESSFmm 2	ESSF	mm	2	Moist Mild	Robson
5 ESSFmmp	ESSF	mmp		Moist Mild Parkland	
2 ESSFmv 1	ESSF	mv	1	Moist Very Cold	Nechako
2 ESSFmv 2	ESSF	mv	2	Moist Very Cold	Bullmoose
2 ESSFmv 3	ESSF	mv	3	Moist Very Cold	Omineca
2 ESSFmv 4	ESSF	mv	4	Moist Very Cold	Graham
5 ESSFmvp	ESSF	mvp		Moist Very Cold Parkland	
2 ESSFmw	ESSF	mw		Moist Warm	
5 ESSFmwp	ESSF	mwp		Moist Warm Parkland	ļ
1 ESSFvc	ESSF	vc		Very Wet Cold	
5 ESSFvcp 1 ESSFvv	ESSF ESSF	vcp vv		Very Wet Cold Parkland Very Wet Very Cold	
5 ESSFvvp	ESSF	vvp		Very Wet Very Cold	
•		* *P		Parkland	
1 ESSFwc 1	ESSF	wc	1	Wet Cold	Columbia
1 ESSFwc 2	ESSF	wc	2	Wet Cold	Northern
1 ESSFwc 3	ESSF	wc	3	Wet Cold	Cariboo
1 ESSFwc 4	ESSF	wc	4	Wet Cold	Selkirk
2 ESSFwc 5	ESSF	wc	5	Wet Cold	Salmo

Implementation Policy

This policy provides guidance for the implementation of the provincial order for non-spatial old growth objectives.

1. Definitions

In this policy

"Minister" means the Minister of Sustainable Resource Management,

"Order" means the Order Establishing Provincial Non-Spatial Old Growth Objectives, and

"Landscape Unit Planning Guide" ("LUPG") means the document entitled Landscape Unit Planning Guide and dated March, 1999.

2. General

- a) Old forest retention objectives should be achieved by following the relevant procedures in the Landscape Unit Planning Guide (LUPG).
- b) Old forest retention objectives in the Order apply to all Crown land in a landscape unit, and to private land in a tree farm licence. In accordance with the direction in the LUPG, old forest retention objectives do not apply to woodlot licenses. See pages 13-26 of the LUPG for a detailed discussion on how to prepare the data set for the purposes of applying the old forest retention objectives.
- c) Implementation of the Order should be informed by the best available technical and science-based information, with new information being utilized as soon as practicable.
- d) Biogeoclimatic information used for the purposes of the Order must be endorsed by the Regional Director of SRM.

3. Potential reduction of old forest retention in low biodiversity emphasis areas

As outlined in provision A5 in the Order, old forest retention may be reduced by up to 2/3 in landscape units with low biodiversity emphasis (referred to in the LUPG as "drawn down by 2/3") to the extent necessary to address timber supply impacts.

As indicated in the LUPG, the old forest retention percentages shown in Tables 1-4 of the Order will be reduced to 1/3 in all landscape units with low biodiversity emphasis, except where a timber supply analysis carried out in association with the Timber Supply Review process has determined that conserving more than 1/3 will not cause timber supply impacts.

4. Recruitment

- a) Recruitment strategies must reflect the strategies outlined in the LUPG or in land use plans approved by the Minister of SRM or designate.
- b) In intermediate and high emphasis landscape units, the intent is to capture the entire old forest objective immediately. However, where old forest retention objectives cannot be met immediately in these units due to:

- insufficient amounts of old forest; or
- forest health or catastrophic events

a recruitment strategy must be prepared to recruit the full objective amount of old forest in the shortest possible timeframe, consistent with the objectives set out in the Order and strategies outlined in the LUPG.

- c) Where, under provision A5 in the Order, a reduction (i.e., "draw down") in the percent old forest retention has occurred, it is recommended that a strategy be developed as soon as reasonably possible, and that the strategy ensure the full objective amount of old forest is in place consistent with the objectives set out in the Order and the strategies and timeframes for low biodiversity emphasis outlined in the LUPG.
- d) An alternative strategy for recruitment than that outlined in the LUPG in low intermediate and high may be proposed provided the strategy:
 - maintains or improves benefits for old forest conservation;
 - is endorsed by, or reflects any specific policy direction of, the Minister or delegate; and
 - it can be shown that the intent of b) or c) would be better met.

5. Use of younger forests to meet old forest objectives

- a) For the purposes of provision A6 of the Order, in intermediate and high emphasis areas younger age classes (preferably age classes 6, 7 and 8 but potentially younger) may be used to comprise the old forest objective. Where younger age classes are substituted it must be demonstrated that the younger stands are of equal or better conservation value.
- b) The policy outlined in 5(a) will not apply to low biodiversity emphasis landscape units that have been drawn down by 2/3. In such cases the remaining 1/3 old forest must be retained with no opportunity for substituting younger stands¹.

6. Draft old growth management areas

Where the Minister or delegate has identified or approved draft old growth management areas (OGMAs) under provision A8 of the Order, the draft OGMAs should be considered in, and submitted with, any forest development plan or forest stewardship plan.

_

¹ This clause does not apply to Okanagan and Merritt areas.



File: ORCS 17580-02/Sproat Lake

ORDER TO ESTABLISH A LANDSCAPE UNIT AND OBJECTIVES

SPROAT LAKE LANDSCAPE UNIT

Pursuant to Section 4 of the *Forest Practices Code of British Columbia Act*, I hereby establish the Sproat Lake Landscape Unit, an area located near Port Alberni, BC, in South Island Forest District, effective July 18, 2005.

The boundaries of the Sproat Lake Landscape Unit are shown on the Sproat Lake Landscape Unit map dated June 30, 2005, attached to this Order.

In addition, I hereby establish objectives for the Sproat Lake Landscape Unit, as attached to this Order, effective July 18, 2005.

Warren Mitchell Regional Director

Coast Region

Integrated Land Management Agency

. Atikel

Ministry of Agriculture and Lands

Preamble

The goal of these objectives is to sustain biological diversity at the landscape level; permissible activities are described to streamline administrative procedures and address operational safety concerns.

First Nations traditional use of forest resources, treaty negotiations or settlements will not be limited by the following objectives.

Legal Objectives – Sproat Lake Landscape Unit

Pursuant to Section 4 of the *Forest Practices Code of British Columbia Act*, the following are the landscape unit objectives for the Sproat Lake Landscape Unit.

Objective 1 - Old Growth Management Areas

Maintenance or recruitment of old growth forests
 Maintain or recruit old growth forests in established old growth management areas (OGMAs), as shown on the attached Sproat Lake Landscape Unit map dated June 30, 2005, subject to section 2 below.

2) Permissible Activities

a) Minor OGMA boundary adjustments for operational reasons:

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

- the boundary adjustment does not affect more than 10 per cent 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 for road or bridge location exists, and
- iii) suitable OGMA replacement forest of at least equivalent quantity is identified either (in order of priority) directly adjacent to, or in the same variant and landscape unit as the adjusted OGMA.

In the case of ii) above, as an alternative to finding replacement area the licensee may permanently deactivate and rehabilitate a temporary road or bridge site within four years after construction.

b) Other permissible activities:

- i) Boundary pruning of trees to improve wind firmness.
- ii) Timber harvesting to prevent the spread of insect infestations or diseases that pose a significant threat to forested areas outside of OGMAs. Salvage within OGMAs will be done in a manner that retains as many old growth forest attributes as possible.
- iii) Maintenance, deactivation, removal of danger trees, or brushing and clearing on existing roads under active tenure within the right-of-way for safety purposes.
- iv) Felling of guyline clearance, tailhold anchor trees, or danger trees (except high value wildlife trees) along cutblock boundaries or within the right of way on new road/bridge alignments to meet safety requirements.
- Construction of rock quarries 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 hectare 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.

Objective 2 - Wildlife Tree Retention

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 cutblocks¹, 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 that 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 single tree 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 (excluding 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

¹ A minor salvage cutblock is defined as less than 2.0 ha of harvesting and/or less than total volume of 2,000m³ excluding volume from any road clearing width, if the road is required to facilitate the removal of the timber within the minor salvage cutblock.

Objective 3 - Special Management Zone 17

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.



Order Establishing Resource Management Zones and Resource Management Zone Objectives within the area covered by the Vancouver Island Land Use Plan, pursuant to sections 3(1) and 3(2), as well as section 9.1 of the Forest Practices Code of **British Columbia Act (the Act)**

- I. Pursuant to section 3(1) of the Act, the following zones, as presented on Map 1 (attached), are Resource Management Zones (RMZ):
 - A. Special Management Zones (SMZ) 1 through 14 and 17 through 22;
 - B. Resource Management Zones 4, 5, 6, 8, 10, 11, 15, 18, 19, 21, 23, 24, 27, 28, 30, 36, 38, 40, 42, 43, 44, and 47; these RMZ are also referred to as Enhanced Forestry Zones (EFZ);
 - C. Resource Management Zones 7 and 14; these two RMZ are also referred to as General Management Zones (GMZ).
- Pursuant to section 3(2) of the Act, the following provisions are Resource II. Management Zone objectives:
 - A. for Special Management Zones 1 through 14 and 17 through 22:
 - 1. Sustain forest ecosystem structure and function in SMZs, by:
 - (a) creating or maintaining stand structures and forest attributes associated with mature¹ and old² forests, subject to the following:
 - i. the target for mature seral forest should range between one quarter to one third of the forested area of each SMZ³; and
 - in 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;
 - (b) retaining, within cutblocks⁴, structural forest attributes and elements with important biodiversity functions⁵; and
 - (c) 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.

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 applicantly of a series of the mature seral stage will vary significantly by forest type and from one biogeoclimatic zone to another.

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.

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

Within cutblocks: generally means non-contiguous with cutblock boundaries.

⁵ This includes, but is not limited to snags, wildlife trees, downed logs.

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



- 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.
- 3. Pursuant to section 2(1) of the Operational Planning Regulation (OPR)⁷, the approval of both the district manager, Ministry of Forests and the designated environment official, Ministry of Environment, Lands and Parks is required for all forest development plans, or parts of forest development plans that relate to areas within the following SMZs: 1, 3, 4, 6, 8, 9, 10, 11, 13, 17, 19, 20 and 21.
- B. for Special Management Zones 8, and 13, and parts of Special Management Zones 1, 3 and 11, which are located within landscape units with higher biodiversity emphasis, as shown on Map 2:
- Maintain late-successional habitat elements and attributes of biodiversity⁸ in forested ecosystems with emphasis on regionally rare and underrepresented ecosystems, by retaining old seral forest at the site series/surrogate level of representation⁹.
- Retain late-successional habitat elements and attributes of biodiversity in patches of variable size.
- C. for the following Special Management Zones with primary visual resource values: 1, 2, 3, 5, 6, 7, 10, 11, 12, 13, 14, 18, 19 and 22, as shown on Map 3:
- 6. Maintain the visual quality of known scenic areas in accordance with the recommended visual quality classes in the visual landscape inventory, until the district manager establishes visual quality objectives for the areas.
- D. for all Enhanced Forestry Zones, as shown on Map 1, save and except the parts of those zones which are designated as community watersheds as defined in section 41(8) of the Act:
- 7. To increase the short-term availability of timber.
 - (a) a cutblock may be larger than 40 ha pursuant to section 11(2)(a) of the OPR;
 - (b) pursuant to section 68(4) of the OPR, a cutblock is greened-up if it is adequately stocked and the average height of those trees that are
 - (i) the tallest tree in each 0.01 ha plot included in a representative sample, and
 - (ii) a commercially valuable species or other species acceptable to the district manager

is at least 1.3 meters;

O.C. 426/98 -

Effective: June 15, 1998.

⁷ BC Reg. 107/98

⁸ This includes, but is not limited to: large diameter (> 60 cm) live, decaying and dead standing trees (providing nest and cavity sites); downed wood, including large diameter pieces (50 to 150 cm); deciduous broad-leaved trees, both in riparian and upland areas.

The level of representation of old seral forest will be applied through landscape unit planning.



unless the district manager determines that a cutblock referred to under (a) or (b) would significantly impact specific hydrological, wildlife, biodiversity, scenic or recreation values.

- **8.** Avoid or mitigate adverse hydrological impacts, which may result from the practices referred to in objective 7, in watersheds with significant watershed sensitivity and significant fisheries values, as determined by the district manager and designated environment official.
- **9.** When proposing the species composition for the purposes of OPR section 39 (3) (o), a person may, pursuant to OPR section 41, select a single species that is ecologically suited to the area, if a mix of species was present on the area before the timber was harvested.
- 9.1 The area that may be subject to selection of a single species pursuant to objective 9 is limited to no more than 20 per cent of the forested area of any variant within a given EFZ.

E. for Resource Management Zones 7 and 11:

10. To avoid severe social and economic consequences, as determined by the district manager and the designated environment official, the full target of 13 per cent for old growth retention in CWHvm1 may be reduced by up to one third provided that ecologically suitable second growth forest is identified to recruit the shortfall¹⁰.

F. for Resource Management Zone 42:

- 11. Retain old seral forest in CWHvm1 in accordance with the full old seral target of 13 per cent for the variant.
- **11.1**Despite objective 11, up to one third of the old seral target may be recruited from second growth provided that
 - (a) such recruitment is necessary to avoid severe social and economic consequences;
 - (b) such recruitment will not impact the ability to conserve suitable habitat of identified wildlife in accordance with the Identified Wildlife Management Strategy¹¹; and
 - (c) ecologically suitable second growth forest is identified to recruit the shortfall. 12

G. for Special Management Zone 10:

12. Retain or recruit old growth forest in CWHxm2 in accordance with the full old seral target of 9 per cent for the variant.

H. for Resource Management Zone 10

13. Retain old seral forest in CWHxm2 in accordance with the full old seral target of 9 per cent for the variant.

¹⁰The targets for retention or recruitment of old growth forests will be achieved through the establishment of old growth management areas as part of landscape unit planning.

¹¹ See "Managing Identified Wildlife: Procedures and Measures", Volume 1, February 1999.

The targets for retention or recruitment of old growth forests will be achieved through the establishment of old growth management areas as part of landscape unit planning.



- **13.1**Despite objective 13, up to one third of the old seral target may be recruited from second growth provided that
 - (a) such recruitment is necessary to avoid severe social and economic consequences;
 - (b) such recruitment will not impact the ability to conserve suitable habitat of identified wildlife in accordance with the Identified Wildlife Management Strategy¹³; and
 - (c) ecologically suitable second growth forest is identified to recruit the shortfall.¹⁴

I. for Resource Management Zone 30:

14. Retain all remaining old growth forest in CWHxm2 until landscape unit objectives for old growth retention or recruitment have been established in accordance with the full old seral target of 9 per cent for the variant.

J. for Resource Management Zones 8, 14, 28 and 43:

- **15.** Retain old growth forests to meet old seral targets¹⁵ and marbled murrelet habitat requirements¹⁶ in the non-contributing¹⁷ land base to the fullest extent possible.
- **16.** Beyond retention in the non-contributing land base, retain old forests in the timber harvesting land base, up to the full target amount, if the district manager and the designated environment official determine that such retention is required to maintain critical marbled murrelet habitat¹⁸.

III. Transition

17. Pursuant to section 9.1 of the Act, the following objectives will not be implemented in an area until landscape units and objectives have been established for the area, in accordance with section 4 of the Act:

Objectives 1(a); 4; 5; 10; 11; 11.1; 12; 13; 13.1; 15; and 16.

18. In the event that landscape units and objectives are not established in an area within 2 years of the date that this order takes effect, the objectives referred to in paragraph 17 will be implemented in the area.

IV. Filing the Order

This order will be filed with the regional manager of the Vancouver Forest Region and will take effect on December 1, 2000.

 $^{^{13}}$ See "Managing Identified Wildlife: Procedures and Measures", Volume 1, February 1999.

¹⁴The targets for retention or recruitment of old growth forests will be achieved through the establishment of old growth management areas as part of landscape unit planning.

¹⁵ See "Landscape Unit Planning Guide", March 1999.

¹⁶ See "Managing Identified Wildlife: Procedures and Measures", Volume 1, February 1999.

¹⁷ Non-contributing: the crown forested land base that does not contribute to the annual allowable cut, but does contribute to biodiversity objectives and targets.

Retention or recruitment of old growth forests will be achieved through the establishment of old growth management areas as part of landscape unit planning.



The Honourable Jim Doyle Minister of Forests

The Honourable Joan Sawicki
Minister of Environment, Lands and Parks

The Honourable Dan Miller Minister of Energy and Mines



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

This notice is given under the authority of section 7(2) of the *Forest Planning and Practices Regulation* (B.C. Reg. 14/04) and 9(3) of the *Woodlot Planning and Practices Regulation* (B.C. Reg. 21/04).

The following notice includes indicators of the amount, distribution and attributes of wildlife habitat required for the survival of the species at risk outlined in Schedule 1.

Approved Wildlife Habitat Areas are not included in the indicators of amount, distribution and attributes for each of the species outlined in Schedule 1. As per section 7(3) of the *Forest Planning and Practices Regulation*, forest tenure holders are exempt from the obligation to specify a result or strategy in relation to the objective set out in section 7(1) of the *Forest Planning and Practices Regulation*, for approved Wildlife Habitat Areas.

This notice applies to the South Island Forest District.

Schedule 1

1) "Queen Charlotte" Goshawk (Accipiter gentilis laingi)

Amount:

1. 239 ha of suitable habitat not exceeding an impact to the mature timber harvesting landbase of 79 ha.

Distribution:

- 1. The amount of habitat referenced above must be distributed to provide:
 - areas of suitable breeding habitat including functional nesting and post fledging habitat of the size identified in the species account for Charlotte Goshawk in the *Accounts and Measures for Managing Identified Wildlife* (Identified Wildlife Management Strategy Version 2004).
 - areas of suitable goshawk breeding habitat to minimize overlap between goshawk home ranges (approximately 5-8 km separation).

The areas described above are located within the ecosections and preferred elevations identified in the species account for Queen Charlotte Goshawk in the *Accounts and Measures for Managing Identified Wildlife* (Identified Wildlife Management Strategy Version 2004).

Attributes:

Species: Queen Charlotte Goshawk

Attribute	Characteristics
Nesting and PFA Area	Approximately 200 ha in size.
Stand Features (Nesting and PFA)	Structural stage 5-7 (>45yrs), multi-layered canopies, structurally diverse, canopy closure (greater than 50%), large diameter trees (for the locale), snags and course woody debris (CWD), typically not along forest/nonforest edges. Not near urban areas and generally on the lower 2/3 of slopes where slope gradient is <40%.
Tree Species (Nesting and PFA)	Western hemlock, Douglas fir, Sitka spruce, Western red cedar, amabilis fir and red alder.
Structural Stage	5 (young forest - is used but is generally not preferred), 6 (mature forest) and 7 (old forest).
Elevation (Nesting and PFA)	Areas managed for nesting must generally be below 900 m.

2) Marbled Murrelet (Brachyramphus marmoratus)

Amount:

- 1. An amount equal to the total amount of currently suitable nesting habitat in the non-contributing landbase. Government policy for determining the amount of suitable nesting habitat is provided in the species account for Marbled Murrelet in the *Accounts and Measures for Managing Identified Wildlife* (Identified Wildlife Management Strategy Version 2004); and
- 2. An amount of suitable Marbled Murrelet nesting habitat within Old Growth Management Areas consistent with the direction from landscape unit planning.

Distribution:

- 1. The amount of habitat referenced above must be distributed to provide:
 - areas of suitable nesting habitat of the size and spatial distribution identified in the species account for Marbled Murrelet in the *Accounts and Measures for Managing Identified Wildlife* (Identified Wildlife Management Strategy Version 2004).
- 2. The areas described above are located within the biogeoclimatic units and preferred elevations identified in the species account for Marbled Murrelet in the *Accounts and Measures for Managing Identified Wildlife* in the Identified Wildlife Management Strategy Version 2004.

Attributes:

Attribute	Characteristics
Size	Maintain a balanced range of patch sizes including a mix of large (>200 ha), medium (50-200 ha) and small (<50 ha) patches within managed forests. The area should include vertical canopy complexity,
Tree Features	Large branches or branches with deformities, and presence of mossy platforms
Tree Species	It is unlikely that Marbled murrelets select particular tree species, however certain species are more likely to provide large horizontal platforms suitable for nesting. This includes yellow cedar, western hemlock, Sitka spruce, Douglas-fir and western red cedar. Less likely species include mountain hemlock and amabilis fir.
Nesting Habitat Features	Suitable nesting habitat includes old seral stage coniferous forests, providing large trees with platforms (limbs or deformities >15cm diameter) with variable canopy structure and small gaps in the canopy. Readily nest on steep slopes but is not essential if forest canopies are non-uniform.
Tree Size	Most nesting trees in BC are >200 yr. Nest trees are typically >40 m tall and nest heights are typically >30 m. Nest limbs range in size from 15-74 cm diameter.
Structural Stage	7: old forest (>250 yr - age class 9, but 8 is acceptable if older forest is not present and the age class 8 provides platform limbs and other nest attributes).
Additional information	Table 3 of the IWMS Version 2004 species account for Marbled Murrelet provides detailed information about the habitat features that are associated with most likely, moderately likely and least likely habitat within each of the Marbled Murrelet Conservation regions.

3) Scouler's Corydalis (Corydalis scouleri))

Amount

1. 50 ha of suitable habitat not exceeding an impact to the mature timber harvesting landbase of 20 ha.

Distribution:

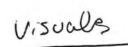
- 1. The amount of habitat referenced above must be distributed to provide:
 - areas of suitable habitat, including the known populations identified in the species account for Scouler's Corydalis in the *Accounts and Measures for Managing Identified Wildlife* (Identified Wildlife Management Strategy Version 2004).
- 2. The areas described above are located within the ecosections and preferred elevations identified in the species account for Scouler's Corydalis in the

Accounts and Measures for Managing Identified Wildlife (Identified Wildlife Management Strategy Version 2004).

Attributes:

Species: Scouler's Corydalis

Attribute	Characteristics
Size	Typically <10 ha in size depending on the extent of the population and suitable habitat. Should include a core (defined by the perimeter of the population) and management zone (close to 50m but may extend up to 250m).
Habitat Features	Cool, moist and moderately shady habitats usually adjacent to watercourses. Tend to be located in deciduous or mixed forest. Maintain ~ 60% basal stem area in the management zone and remove the 40% basal stem area in small openings. Includes west, southwest, north to northeast aspects from 0 to 45% slopes. Occurs in young and older dominant red alder stands, but is also found in mixed conifer stands with mature big-leaf maple and Sitka spruce as well as red alder, western red cedar and western hemlock.
Structural Stage Elevation	5 (young forest), 6 (mature forest), 7(old forest). 5 - ~200 m.





File: 16290-01, 19500-01, 19700-01

November 13, 1998

To: All Licensees

South Island Forest District

Dear Sir/Madam:

The intent of this letter is to clarify the nature of licensee's obligations regarding scenic area management within the South Island Forest District (SIFD) under the Forest Practices Code of British Columbia Act (FPC Act). This letter supersedes a letter dated October 17, 1996 issued for the former Duncan Forest District by Jerry Kennah, District Manager (DM). Scenic areas are defined in Section 1 of the Operational Planning Regulation (OPR). Scenic areas are any visually sensitive area or scenic landscape identified through a Visual Landscape Inventory (VLI) or planning process carried out or approved by the DM.

Further to the above, Section 1, Sub-section (3) of the OPR requires that scenic areas be defined at least four months prior to a Forest Development Plan (FDP) submission to qualify as known.

The SIFD has completed VLIs for most areas on Crown lands along visual corridors within the Arrowsmith Timber Supply Area. VLIs have also been approved for Tree Farm Licences 25, 44, 46, 47 and 54 within the SIFD. Scenic areas identified as known within the boundaries of the SIFD include all visual landscapes associated with views from the following travel corridors:

- 1. Highway 1 and 19 from Victoria to the Tsable River including Denman and Hornby Islands
- 2. Highway 4 from Parksville to Ucluelet and Tofino
- 3. Sproat Lake
- 4. Alberni Inlet from Port Alberni to Bamfield
- Nahmint River Valley

12

- Clayoquot Sound
- 7. Barclay Sound including views between Tzartus Island and Toquart Bay
- 8. Coastal shorelands between Toquart Bay and Ucluelet
- 9. Toquart River Valley to the north end of Toquart Lake
- 10. Effingham Inlet, Pipestem Inlet and Uchucklesit Inlet
- 11. Escalante
- 12. Zuciarte Channel
- 13. Mooyah Bay/Mooyah River Valley
- 14. Great Central Lake
- 15. Bamfield Road from Port Alberni to Bamfield
- 16. South Main from Franklin River to Caycuse River Junction
- 17. Rosander Main from Caycuse River to Carmanah Provincial Park
- 18. Nitinat Lake
- 19. Klanawa River from the Pacific Ocean to the West Klanawa Junction
- 20. Pacific Ocean from Cape Beale to Carmanah Point
- 21. Highway 14 Victoria to Port Renfrew
- 22. San Juan Ridge Trail/San Juan Low Intensity Area
- 23. Shawnigan Lake
- 24. Highway 18 Duncan to Honeymoon Bay
- 25. Gordon River travel corridors from Port Renfrew to Gordon River Bridge
- 26. Port Renfrew to the Harris Creek Valley to a point just north of the old Harris Creek Camp (vicinity of Hillcrest Main Junction)
- -27. Caycuse/McLure mainline travel corridor from Honeymoon Bay to Glad Lake mainline
 - 28. Walbran Low Intensity Area
 - 29. Caycuse/Nixon Creek/Nitinat River to South Main Junction
 - San Juan River Valley from Port Renfrew to the San Juan River at the San Juan River recreation site.
 - 31. Nanaimo Lakes/Ladysmith, Block 15 and 16 of TFL 47

Known scenic areas within the SIFD must be considered in all forest related planning, including the preparation of FDPs. All forest related operations in landscape units containing recommended retention, partial retention or modification visual quality classes as seen from viewpoints will require a visual impact assessment (VIA). The VIA must be completed prior to the submission of the Silviculture Prescription (SP) but it is not required to be submitted with the SP (OPR 37 (1)(a)). The district manager may request that a VIA be made available for review. The conditions of this letter shall become effective four months from the date of this letter and all forest related planning including Forest Development Plans must identify and describe known scenic areas and must specify measures that will be carried out to protect these resources (refer to Section 18(1) of the OPR and Section 10(c)(ii) of the FPC Act). Scenic areas made known under the former Duncan Forest District are still considered to be in force as of February 17, 1997,

however the management of those scenic areas will be subject to the conditions within this letter effective immediately.

The areas modified from the February 17th letter include the following:

- 1. Gordon River Travel Corridor
- 2. San Juan River Valley Corridor

The recommended Visual Quality Classes (RVQC's) identified in the district are currently being considered but are not binding under the FPC act. Licencees may wish to use them when planning how to manage and conserve the resources as identified in Section 41 (1)(b) until such time as Visual Quality Objectives (VQO) are formally established.

In order to ensure landscape values are adequately managed and conserved, specific visual landscape information such as photo mosaics, digital terrain models, sightlines from specific viewpoints, maps and written descriptions of the proposed developments may be necessary to assess whether a proposed cutblock has achieved the desired visual objectives. Please refer to the attached District Operational Procedure on Visual Impact Assessments and the VIA Guidebook for assistance when completing VIA's.

It is suggested that management of scenic areas should be co-ordinated with other FPC requirements that may affect the visual landscape, where possible. I have enclosed a copy of FPC Bulletin #7 on Scenic Areas dated February 26, 1996 for you reference. I would also like to emphasize it is critical that the use of landscape design and alternative silviculture systems be employed in cutblock design so that RVQC's and timber supply requirements can be achieved.

Please ensure that this information reaches the appropriate personnel charged with operational programs. If you require further information or assistance please contact John Laing or Randy Taylor at (250) 724-9205 using the following as a guide:

John Laing

Forest Development Plan submissions

Logging Plans

Silviculture Prescriptions

Randy Taylor

Visual Landscape Inventories

Scenic Areas

Visual Impact Assessments

Recreation Inventories/Special Features

Yours truly,

Cindy Stern

District Manager