WOODLOT LICENCE PLAN #1

WOODLOT LICENCE # W1878

2009 to 2019

Skip & Susan Plensky

6133 Glacier Way
Nanaimo, BC V9T 6C8

General Delivery
101 Island Way
Kyuquot, BC V0N 1A0

Authorized Licensee Signature: **Wolfram Wollenheit per Skip Plensky**

[Signature]

[Print Name] _____

[Date] _____

Disclaimer

Recognizing the special nature of management on a woodlot licence, this disclaimer forms part of the Woodlot Licence Plan (WLP) for Woodlot Licence Number W1878 and advises that:

- the decision to operate under one or more of the Default Performance Requirements provided in the Woodlot Licence Planning and Practices Regulation (WLPPR) is the sole responsibility of the woodlot licence holder, and involved no detailed oversight or advice from the prescribing registered professional forester,
- this disclaimer is signed on the explicit understanding and information provided by government that the use and achievement of a Default Performance Requirement meets the expectations of government with respect to the management of woodlot licences,
- the undersigned Registered Professional Forester certifies that this Woodlot Licence Plan and the supplemental information fulfills the standards expected of a member of the Association of British Columbia Forest Professionals and that I did personally supervise the work.

Signed _____ Seal:

Name (Print) Erik Holbek

RPF # 4499 Contact phone number (250)-337-5588

Email mail@econ.ca

I. MANDATORY CONTENT FOR A WOODLOT LICENCE PLAN (WLP)..... 1

I. MANDATORY CONTENT FOR A WOODLOT LICENCE PLAN (WLP)

PLAN AREA

This plan covers the entire 402.35 ha included in the Woodlot Licence.

The Crown portion of the woodlot consists of one contiguous area of 400ha located south of Chamiss Bay in Kyuquot Sound on the west coast of Vancouver Island.

The private land contribution to the woodlot includes a portion of lot 1613 of the Rupert Land District, in the Village of Kyuquot. This property is 2.83 ha and 2.35 ha of this is forested and included in the woodlot licence. The lot is situated on an island, nestled among the islets, rocks and reefs that shelter the village.

Travel between the two parcels takes approximately 20 minutes by motorboat.

MAP AND INFORMATION

Table 1: Map and Information Content

Information Item	Map	Text	N/A
Forest cover	√		
Topography; (unless exempted by DM)	√		
Location of streams, wetlands and lakes as shown on forest cover maps, terrain resource inventory maps and fish and fish habitat inventory maps.	√		
Riparian classification of streams, wetlands and lakes if shown on maps	√		
Identification of fish streams	√		
Biogeoclimatic zones and subzones (unless exempted by DM)		√	
Public utilities (transmission lines, gas & oil pipelines, and railways)			√
Existing roads	√		
Special Situations that may not Apply to the WL area			
Resource Management Zones, Landscape Units or Sensitive Areas		√	
Wildlife Habitat Areas (unless exempted by DM)			√
Scenic Areas	√	√	
Ungulate Winter Ranges			√
Community Watersheds			√
Fisheries Sensitive Watersheds			√
Community and domestic water supply intakes that are licensed under the Water Act and any related water supply infrastructures	√	√	
Contiguous areas of sensitive soils		√	
Temporary or permanent barricades to restrict vehicle access			√
Private property within or adjacent to the woodlot licence area			√
Resource features other than wildlife habitat features and archaeological sites (unless the location of the resource feature is not to be disclosed)			√

All of the applicable information required to be addressed under section 8(1) of the Woodlot Licence Planning and Practices Regulation (WLPPR), and checked above, is discussed in the follwing text of this section and/or is identified on the WLP maps in Appendix I & II.

BIOGECLIMATIC CLASSIFICATION

The crown portion of the woodlot is located within a transition area between the very wet maritime (CWHvm1) and the very wet hypermaritime (CWHvh1) subzones of the Coastal Western Hemlock Biogeoclimatic Zone. The existing mapping shows the majority of the woodlot as located within the CWHvh1 trending towards the CWHvm1 to the east as the elevation increases and the influence of the Pacific Ocean decreases. On the ground, there is a greater expression of ecosites tending towards the character of the CWHvm1 as demonstrated by the historical presence of Douglas fir. This fact is likely due to the SSE facing slopes that typify much of the woodlot area.

The terrain of the Crown portion of the woodlot has moderate slopes and flats containing numerous rock outcrops and breaks. The character of the terrain makes the operation of ground-based equipment difficult and road construction costly. Unstable terrain exists in the gully system along British Creek, which effectively splits the Crown portion of the woodlot licence into two 2 separate access units.

The existing stands of the Crown portion of the woodlot are mainly hemlock leading second growth interspersed with pockets of old growth. The second growth regenerated naturally following past A-frame and cat logging. Historical evidence suggests that some sites are highly productive for Douglas fir.

The private portion of the woodlot is located entirely within the CWHvh1. The terrain of the private portion of the woodlot is typical of west coast islands, with a few broken rock outcroppings and a rocky shoreline. The terrain is rolling with relatively shallow slopes. The forest cover of the private land is composed entirely of first growth stands.

RESOURCE MANAGEMENT ZONES, LANDSCAPE UNITS AND SENSITIVE AREAS

The woodlot is located within the Kashutl Landscape Unit and Resource Management Zone (RMZ) #14 of the Vancouver Island Land Use Plan (VILUP). As there is no approved landscape unit plan for the Kashutl LU, the only applicable higher-level plan is the VILUP. The planning objectives for RMZ #14 include the integration of timber values with coastal scenic values and heritage values.
The woodlot is part of the Kyuquot Timber Supply Block (TSB) within the Strathcona Timber Supply Area (TSA).

SCENIC AREAS

Retention and partial retention visual quality objectives have been established for portions of the woodlot.

COMMUNITY WATERSHEDS

The woodlot is not located within a community watershed. There is a licensed water intake (License C119163 / PD 78496) on Adamski Creek near the southwest corner of the woodlot. Interfor's Chamiss Bay camp has a water intake for domestic use north of W1878 in Chamiss Creek. This intake is outside of the woodlot and will not be affected by activities within the woodlot.

CONTIGUOUS AREAS OF SENSITIVE SOILS

Unstable terrain exists in the gully system associated with British Creek. This feature essentially splits the woodlot into two access management units.

RECREATION

Recreational activity in the area is focused along the shoreline and includes boating and fishing opportunities in Kyuquot Sound. The small bay at the mouth of British Creek contains an identified recreation resource feature that is suitable for summer camping and other beach activities.

The Ministry of Forests' recreation inventory information pertaining to the WLP area is summarized in the following table and the polygons numbers are shown on the WLP map. No recreation polygons or attributes are included for the private portion of the woodlot.

Table 2: Recreational Resource Inventory for the Woodlot Licence W1878

Polygon	Features	Significance	Sensitivity	Impact Management
2698	Coniferous forest, Shore lands	M (Med)	M (Med)	Proposed barge landing will be engineered to minimize visual impact.
2696	Mixed Coniferous/ Deciduous forest, Pebble beach	M (Med)	M (Med)	Layout will minimize visual impact. Beach will not be impacted.
2647	Coniferous forest, Small creek	M (Med)	M (Med)	No impact expected.
2644	Regenerating forest, Small creek	M (Med)	M (Med)	No impact expected.
2637	Regenerating forest, Shore lands	M (Med)	M (Med)	Layout will minimize visual impact and a shore buffer will be maintained.
2555	Regenerating forest, Small creek	L (Low)	M (Med)	No impact expected.
2596	General harbour features, use site	H (High)	M (Med)	Only a small portion of this polygon, the SW corner, is included in the woodlot. The features listed are not within the woodlot boundary.

OTHER
A shellfish lease exists south of the crown portion of the woodlot between Surprise Island and Vancouver Island.

The licensee intends to create a barge loading location along the shore, east of the shellfish lease area in order to allow access to the southern unit of the Crown portion. A suitable upland log storage location has been identified. This facility is necessary to develop the half of the woodlot south of British Creek's ravine.

Other features and resource values relevant to the management of the Woodlot Licence not mentioned specifically in the text above are indicated on the attached maps (See Appendices 1 & 2).

AREAS WHERE TIMBER HARVESTING WILL BE AVOIDED

There are no areas in this Woodlot Licence where timber harvesting will be strictly avoided.

AREAS WHERE TIMBER HARVESTING WILL BE MODIFIED

Areas in this Woodlot Licence where timber harvesting will be modified to protect and manage resources are shown on the map by shading, hatching or lines.

The identification and classification of streams within the woodlot is ongoing and will continue with the engineering of future forest development, especially in the area south of British Creek.

☒ Riparian reserve zones (RRZs) and wildlife tree patches (WTPs) are not planned for regular harvesting other than those specified by regulation, such as tree removal for the purpose of creating trails or for carrying out a sanitation treatment[1]. These areas include zones allocated to streams and wetlands and those areas designated or projected as WTPs. RRZs, including WTPs are denoted in light red shading on the WLP maps.

The riparian reserve zone (RRZ) located along British Creek downstream from its confluence with Creek 4 is 30m on the north side of the creek and up to 80m on the south side of the creek to include potentially unstable terrain.

☒ Riparian Management Zones will be subject to modified harvesting prescriptions. The table below outlines how timber harvesting will be modified based on the stream and lake classification. Depending on the present stand structure, terrain, windthrow risk and block configuration the retention level will be uniform, grouped or spatially distinct. In general understory and non-merchantable cedar and other conifers of good form and vigour will be maintained wherever possible to meet the intent of management for all stream and wetland classifications. RMZs are denoted in light green diagonal hatching on the WLP maps.

[1] **Sanitation treatment:** Tree removal or modification operations designed to reduce damage caused by forest pests and to prevent their spread.

Table 3: Modification of Harvesting in RMZs by Riparian Classification

RIPARIAN CLASS	INTENT OF MANAGEMENT	SPECIES TO RETAIN	RETENTION LEVEL POST HARVEST (stems/ha)
S2 (Fish bearing >5m = 20m)	• Maintain the integrity of the RRZ • Assist in maintaining wildlife attributes within the RMA, such as wildlife tree cover, nesting and perching habitat and diversity of vertical forest structure.	**Fd, Hw, Ba Dr, Mb and Cw**	**25 - 100%**
S3 (Fish bearing >1.5 - 5.0m)	• Maintain the integrity of the RRZ • Assist in maintaining wildlife attributes within the RMA, such as wildlife tree cover, nesting and perching habitat and diversity of vertical forest structure.		**25 - 100%**
S4 (Fish bearing <1.5m)	• Maintain the integrity of the RRZ • Assist in maintaining wildlife attributes within the RMA, such as wildlife tree cover, nesting and perching habitat and diversity of vertical forest structure.		**25 - 100%**
S5 (Non-fish >3m)	• Minimize debris transport to lower reaches of stream		**25 - 100%**
S6 (Non-fish =3m)	• Minimize debris transport to lower reaches of stream		**0 - 100%**
Lake and Wetlands	• Maintain the integrity of the RRZ • Assist in maintaining wildlife attributes within the RMA, such as wildlife tree cover, nesting and perching habitat and diversity of vertical forest structure.		**25 - 100%**

Fd = Douglas fir, Hw = western hemlock, Ba = amabilis fir, Dr = red alder, Mb = maple, Cw = redcedar

☒ Harvesting will be modified to meet established visual quality objectives (VQ) where applicable. Most of the crown portion of the woodlot has a partial retention (PR) VQO. A retention (R) VQO exists along the shoreline facing Surprise Island.

The Forest Planning and Practices Regulation defines the PR VQO as consisting of an altered forest landscape in which the alteration is, when assessed from a significant viewpoint is easy to see, small in scale, and natural appearance. The R VQO is defined as an altered forest landscape in which the alteration, when assessed from a significant viewpoint, is difficult to see, small in scale and natural in appearance. These definitions are borrowed from the FPPR but this regulation does not apply to woodlot licences.

To meet the designated VQO, harvest openings will be designed to follow the line and form of the landscape. The assessment procedures outlined in the Visual Impact Assessment (VIA) guidebook 2001 may be used to direct opening design and to assist in evaluation.

A 50m buffer is planned for the south facing shoreline in the Crown portion of the woodlot. Except for access and harvest corridors, higher levels of tree retention will be maintained within the buffer to provide both a visual screen and to maintain wildlife habitat.

☒ Harvesting will be modified to meet the requirements of Division 4 – Watersheds of the *Woodlot Licence Planning and Practices Regulation* with respect to the licensed water intake on Adamski Creek. Primary forest activities will not cause material that is harmful to human health to be deposited in, or transported to, water that is diverted for human consumption. Modifications may include increased riparian reserve zone widths, use of alternate silviculture systems, and modified road location and design.

PROTECTING AND CONSERVING CULTURAL HERITAGE RESOURCES

The woodlot lies within the traditional territories of the Ka:' yu: 'k' t'h/ Che:k:tles7et'h' First Nation (Kyuquot-Checleset). Contact information for this First Nation is provided within Part II - review and comment. In addition to the information sharing process that is implemented for the approval of this plan, First Nations and other interested parties are welcome during the term of this plan to review planned developments upon their own initiative. Documentation of all consultation with First Nations is to be included within the supplemental information (Part II) of the final submission of the plan.

An Archaeological Overview Assessment (AOA) was completed for the area of the Woodlot Licence in May 2007. This assessment used two different models, one for Culturally Modified Tree (CMT) potential and the other for non-CMT potential. A narrow area that follows the shoreline of the woodlot was found to have a moderate rating for non-CMT archaeological resource potential and several areas were identified as having potential for containing CMTs.

Where the AOA indicates a potential for CMT or non-CMT archaeological resource potential in an area that has been identified for forest development, an archaeologist will be consulted for an office review that may lead to a Preliminary Field Reconnaissance (PFR) or an Archaeological Impact Assessment (AIA) depending on how the micro-topographic features of the site affect the CMT or non-CMT archaeological resource potential.

If the licensee or any personnel connected with the Woodlot Licence operation finds evidence of traditional use or cultural heritage values, the Ministry of Forests Aboriginal Liaison Officer or, in his or her absence, the District representative will be notified and all work will cease within the immediate (30 m) area. The licensee will cooperate fully as requested by the Ministry of Forests Aboriginal Liaison Officer.

The following results and strategies (Table 4) for managing cultural heritage values will apply. These are based on known cultural heritage issues of interest to First Nations in the Campbell River Forest District.

Table 4: Results and Strategies for Cultural Heritage Resources

Cultural Heritage Value	*Results & Strategies*
Cedar:	***Result:*** • Enable continued access to red cedar for traditional use by local First Nations.
	Strategies: • Based on availability of stock and ecological suitability (e.g. Cw listed as preferred species), a component of Cedar will continue to be planted in the woodlot to ensure a long-term supply. • Naturally occurring young cedar trees (including poles) will be retained where operationally feasible. • Participate in any relevant District monumental cedar strategies developed in partnership with the District and the North Island Woodlot Association.
Traditionally Used Plants:	***Result:*** • Enable continued access to traditionally used plants for traditional use by local First Nations.
	Strategies: • When local First Nations have indicated specific interest in traditional use plants, the licensee will identify the presence of such plants in planned harvest areas and communicate this to the interested First Nations prior to cutting permit submission. This is to allow for review by the local First Nations and to allow for the collection of traditionally used plants. Interested First Nations will also be notified of traditionally used plants, particularly those indicated to the licensee as scarce, if identified on the woodlot outside of planned harvest areas. • A no-pesticide use policy is implemented in this Woodlot Licence. Manual brushing and early planting of large stock is the preferred method to overcome brush problems.
Cultural Heritage Resources	***Result:*** • Harvest plans will consider identified cultural heritage resources.
	Strategies: • The Licensee will share information with local First Nations upon request and be available for field reviews.

WILDLIFE TREE RETENTION STRATEGY

Note: The proportion of the Woodlot Licence area that is occupied by wildlife tree retention areas is specified in the "PERFORMANCE REQUIREMENTS" section of this Woodlot Licence plan.

INDIVIDUAL WILDLIFE TREES

a) Species and Characteristics:

Desired species are (in order of preference): Fd, Hw, Dr, Mb and Cw with a minimum dbh of 50cm. The following table describes the species and characteristics of individual trees that will guide the selection of wildlife tree to be retained from harvesting.

Table 5: Wildlife Tree Value and Characteristics for All Species

CHARACTERISTICS	HIGH (at least two of the listed characteristics)	MEDIUM	LOW
	• Internal decay (heart rot or natural/excavated cavities present) • Crevices present (loose bark or cracks suitable for bats) • Large brooms present • Active or recent wildlife use • Current insect infestations • Tree structure suitable for wildlife use (e.g. large nest, hunting perch, bear den, etc.) • Largest tree on site (height and/or diameter) and/or veterans • Locally important wildlife tree species	• Large, stable trees that will likely develop two or more of the characteristics listed under HIGH	• Trees not covered by HIGH or MEDIUM categories

From: Wildlife Tree Committee recommendations available at - http://www.for.gov.bc.ca/hfp/wlt/wlt-policy-02.htm

b) Conditions under which Individual Wildlife Trees may be Removed:

Specific conditions that influence the decision of where individual wildlife trees may be removed include:

- Worker safety;
- The significance of a forest health risk to surrounding stands;
- The ability to retain other wildlife trees to perform as suitable wildlife habitat; and
- The availability of wildlife trees and CWD in adjacent areas.

All workers involved with the removal of potential wildlife trees will be informed of applicable standards prior to fieldwork to help mitigate unnecessary removals.

c) Replacement of Individual Wildlife Trees:

Individual trees will be replaced if they are of 'high' wildlife value. Replacement trees will be selected using criteria outlined above with a preference for selecting trees that have two or more high wildlife tree value characteristics. Additionally, the main goal for wildlife tree retention is to retain all-stems within streamside reserves (WTPs).

WILDLIFE TREE RETENTION AREAS

a) Forest Cover Attributes:

Wildlife tree patches (WTPs) are preferentially located in fully constrained areas for long-term retention (e.g. riparian reserve zones). The presently allocated WTPs for W1878 are shown on the 1:5000 WLP maps and occupy 18.45 ha or approximately 4.6% of the Woodlot Licence area. The WTPs include some representative larger trees (DBH > average operational cruise) with moderate to high value to wildlife and regenerating stands with future wildlife potential. A list of presently allocated WTPs and their attributes are outlined in the table below.

Table 6: Forest Cover Attributes of Existing Wildlife Tree Patches (WTPs) and Riparian Reserve Zones (RRZs)

Wildlife tree patch ID	Size (ha)	Forest Cover Attributes	Productive Ground	Comments:
WTP 1	0.89	HC(F) 3506-36	100%	Productive forest adjacent to previous harvests.
WTP 2	0.88	HC(F) 3506-36 CH 9314-12	100%	Productive forest adjacent to previous harvest.
WTP 3	1.11	NP	50%	Rocky ridge near height of land.
WTP 4	0.77	HC(F) 3506-36	80%	Productive forest with rock outcrops.
WTP 5	0.88	HC(F) 2105-18	80%	Productive forest with rock outcrops.
WTP 6	0.62	HC(F) 3506-26	80%	Productive forest with swampy areas.
WTP 7	0.42	HC(F) 3506-26	90%	Productive forest adjacent to previous harvest. S6 creek passes through patch.
WTP 8	0.65	FCH 5405-23	100%	Productive forest adjacent to private land and Kyuquot Sound.
WTP 9	0.67	CPlFH 5203-11	100%	Low elevation forest between beach and previous harvest.
WTP 10	7.11	D(H) 2305-28	95%	RRZ on British Creek (S2)
WTP 11	0.78	HC 3308-26	100%	Productive forest.
WTP 12	1.28	C(FH) 8416-18	100%	Old growth forest adjacent to British Lake RRZ.
British Lake RRZ	1.16	C(FH) 8416-18	100%	Old growth forest forming British Lake RRZ
WTP 13	0.38	HC 3308-26	100%	Productive forest.
WTP 14	0.86	H(F) 6506-31	100%	Productive, older forest adjacent to beach and shellfish lease area.
	18.45			

The size, shape and location of the presently shown WTPs is subject to change upon further engineering work. Final mapping and location of WTPs adjacent to cutblocks will be shown with the submission of pre-harvest mapping required by Section 33 of the Woodlot Licence Planning and Practices Regulation (WLPPR).

The minimum proportion of the Woodlot Licence area for long-term WTPs retention is 32.2 ha (8.0%) as per Section 52(1) of the WLPPR. The principles of the BC Wildlife Tree Committee's "Wildlife Tree Retention: Management Guidance" document (May 16, 2006) will be considered when establishing the shape, size, and location of further WTPs. These include:

- Protecting trees with valuable wildlife tree attributes
- Optimally locating WTP retention within or adjacent to harvest areas
- Locating WTP around ecologically valuable anchors
- Retaining uncommon tree species and stand structures for stand-level biodiversity
- Using a diversity of wildlife tree retention strategies
- Giving consideration to present and future windthrow and forest health issues
- Maintaining blow down as CWD unless it poses a risk to worker safety or forest health
- Completing an appropriate level of assessment of retained trees to ensure worker safety
- Retaining wildlife tree reserves at least until related cutblock trees have attained mature seral attributes

Through on-going observation, there will be potential for identifying and locating nesting trees, and other important habitat trees for retention and additional wildlife tree patches.

b) Conditions Under which Trees may be Removed from Wildlife Tree Retention Areas:

Stand-specific issues that influence the decision of where salvage may be appropriate for WTPs include:

- Worker safety
- The significance of forest health risk to surrounding stands
- The ability of the retained wildlife trees to perform as suitable wildlife habitat
- The availability of wildlife trees and CWD in adjacent harvest areas.

Salvage of windthrown timber is permitted within WTPs where it is not within the RRZ and 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.

Individual trees may be felled but not removed if considered a safety hazard. Unsafe wildlife trees will be protected by no-work zones or re-design of cutblock configuration, if they exhibit exceptional high wildlife tree values combining the following characteristics: wildlife tree value category HIGH applicable, DBH > 50 cm, wildlife tree class 2 – 8, > 20 m high, conks or decay present, wildlife use present (nesting, cavities, recent feeding, denning), species Fd, Hw, Mb, or Dr.

c) Replacement of Trees Removed from Wildlife Tree Retention Areas:

Where salvage/harvesting is planned and authorized within a non-RRZ wildlife tree patch, a suitable replacement WTP of at least equivalent quality will be identified concurrently to achieve the retention target. Where all or part of a WTP is salvaged, the salvaged area should be replaced with other suitable habitat in the nearest possible location. If a WTP suffers windthrow, but is not salvaged, it need not be replaced. Replacement areas must have equal or better wildlife values. For non-riparian WTPs, attempts will be made to incorporate important features such as snags, marking, perch and nesting trees, dens, and other significant wildlife features.

MEASURES TO PREVENT INTRODUCTION OR SPREAD OF INVASIVE PLANTS

The woodlot area will be monitored for the appearance of invasive plant species as listed by the Invasive Plant Regulation (BC Reg. 18/2004). While the remote nature of the woodlot's location reduces the risk of invasive species being introduced to the area, introduction of such plants is still possible.

Where it is known or reasonably expected that machinery will be transported from a contaminated site, on or off the woodlot, cleaning of tires, tracks, bucket, undercarriage, etc. will be completed prior to transportation. Where gravel or rock is required to be imported from the outside to woodlot efforts will be made to ensure that it comes from a source that is free of invasive species.

To prevent the establishment of invasive plants, exposed mineral soils will be reseeded with Common #1 Forage Grade or better seed. Common #1 Forage Grade Seed is the lowest grade seed as defined by the Canada Seeds Act regulations with no noxious weeds.

MEASURES TO MITIGATE EFFECT OF REMOVING NATURAL RANGE BARRIERS

There are no rangelands present on or adjacent to the Woodlot Licence and no measures or activities are proposed.

STOCKING INFORMATION FOR SPECIFIED AREAS

☒ The stocking standards for specified areas are found in Appendix 3 – Alternative Stocking Standards.

Specified areas include:

- Areas subject to commercial thinning,
- The removal of individual trees, or
- Areas subject to single/group tree selection or
- Other types of intermediate cutting and /or
- Areas subject to the harvest of special forest products.

For the purposes of this plan, commercial thinning, the removal of individual trees, single/group selection, intermediate cutting or the harvest of special forest products may take place anywhere within the woodlot except in designated areas where harvesting will be avoided. The delineation of specific areas will be conducted in conjunction with the pre-harvest mapping as per Section 33 of the WLPPR.

PERFORMANCE REQUIREMENTS

SOIL DISTURBANCE LIMITS

☒ Default: WLPPR s.24(1)(b):

A woodlot licence holder must not cause the amount of soil disturbance on the net area to be reforested to exceed 8%.

PERMANENT ACCESS STRUCTURES

☒ Default: WLPPR s.25:

The maximum area occupied by permanent access structures is as follows:

- Cutblocks ≥ 5 ha – 7% of cutblock area
- Cutblocks < 5 ha – 10% of cutblock area
- Total Woodlot Licence Area – 7% of Woodlot Licence area

USE OF SEED

☒ Default - WLPPR s.32:

Adoption of Chief Forester's Standards for Seed Use.

STOCKING STANDARDS

☒ Alternative - WLPPR s. 35(1)(a):

The stocking standards, regeneration dates and free growing dates are indicated in Appendix 3. Clarification and rationale is provided in the supplementary information included with the plan. See Section II - 4.

WIDTH OF STREAM RIPARIAN AREAS

☒ Default - WLPPR s.36(4)(b):

The minimum width of the riparian reserve zone, riparian management zone and riparian management area are as described in WLPPR s.36(4)(b).

WIDTH OF WETLAND RIPARIAN AREAS

☒ Default - WLPPR s.37(3)(b):

The minimum width of the riparian reserve zone, riparian management zone and riparian management area are as described in WLPPR s.37(3)(b).

WIDTH OF LAKE RIPARIAN AREAS

☒ Default - WLPPR s.38(2)(b):

The minimum width of the riparian reserve zone, riparian management zone and riparian management area are as specified in WLPPR s.38(2)(b).

RESTRICTIONS IN A RIPARIAN RESERVE ZONE

☒ Default - WLPPR s.39:

Cutting, modifying or removing trees in a riparian reserve zone is limited to the purposes described in Section 39(1) of the WLPPR.

RESTRICTIONS IN A RIPARIAN MANAGEMENT ZONE

☒ Default - WLPPR s.40:

Construction of a road in a riparian management zone is limited to the conditions described is Section 40(1) of the WLPPR.

Restrictions and conditions on road construction, maintenance and deactivation activities, and on cutting, modifying or removing trees in a riparian management zone are as described in Section 40.

WILDLIFE TREE RETENTION

☒ **Default - WLPPR s.52(1):**

The proportion of the Woodlot Licence area that is occupied by wildlife tree retention areas is no less than the least of the following:

- The proportion specified for the area in a land use objective, or
- The proportion specified in the WLP, or
- 8%

Note: The proportion of the Woodlot Licence area that is presently occupied by projected wildlife tree retention areas is currently at 18.45 ha (4.6%).

COARSE WOODY DEBRIS

☒ **Default - WLPPR s.54(1):**

Area on Coast – minimum retention of 4 logs per ha = 5 m in length and =30 cm in diameter at one end.

RESOURCE FEATURES

☒ **Default - WLPPR s.56(1):**

Ensure that forest practices do not damage or render ineffective a resource feature.

****

Note: Only the performance requirements in Part 3 (Practice Requirements) of the WLPPR for which an alternative can be proposed are shown in this Woodlot Licence Plan. The remaining performance requirements in Part 3 are not shown, nor are the performance requirements in Part 4 (Roads).

APPENDICES

Appendix 1: Map of Crown Portion of Woodlot W1878

Appendix 2: Map of Private Portion of Woodlot W1878

Appendix 3: Alternative Stocking Standards for Woodlot W1878

Appendix 4: Alternative Stocking Standards for Specified Areas

APPENDIX 1: WOODLOT LICENCE PLAN MAP (CROWN PORTION)


Woodlot Licence
W1878
British Creek
Campbell River
Forest District
Woodlot Licence Plan Map
Licensee: Skip & Susan Plensky
Area: 400 ha
Reference Map: 92L004
Datum: NAD 83
UTM Zone: 9
UTM: 622 700E 5545 800N
TSA: 37 Strathcona
TSB: B Kyuquot
FIZ: B
P.S.Y.U.: 196
Inv. Reg.: 3
Comp.: 14K
Date: Dec 05, 2008
Drafted By: ECON
N
Dec.: 19°02'E (2007)
Annual Change 12'W
1:5,000
Meters
0 25 50 100
econ
Falling Corner
Permanent Landing
Temporary Landing
Station
Culvert
Bridge
RP
Turnout
Swamp
Quarry
Legal Monument
Gate/Barrier
Wildlife Tree
Boat Launch
Licenced Water Intake
Main Road
Existing Road
Engineered Road
Existing Trail
Recreation Trail
S1-S4 Fish Creek
S5-S6 Creek
Non Classified Drainage
Unclassified Creek
Reach Break
Steep Terrain
Identified Recreation Resource Feature
Biogeoclimatic Zone CWHvm1
Recreation Inventory Polygon 2600
VQO Polygon PR Partial Retention
R Retention
Shorebuffer
Riparian Management Area
Reserve / WTP
Wetland
Waterbody
Potentially Unstable Terrain
Immature Stand
Block
Woodlot Boundary
W1879
Special Use Permit
Interfor L. 1309
Chamiss Bay
Dry Land Sort
KYUQUOT SOUND
Private Land Timber West L.314
Guillod Point
Crowther Channel
Boundary Road
Crown
Proposed Barge Landing Location
Lease Extension Area
Shellfish Lease 1402204
Surprise Island
L3 Lake 1
L3 British Lake
W3 Wetland 1
British Creek
Blk 1B
Blk 2B
Blk 2D
Blk 2E
Blk 3A
Blk 3B
Blk 3C
Imm. #1
Imm. #2
Imm. #3
WTP 1
WTP 2
WTP 3
WTP 4
WTP 5
WTP 6
WTP 7
WTP 8
WTP 9
WTP 10
WTP 11
WTP 12
WTP 13
WTP 14
R100
R140
R200
R241
R300
R325
R329
R330
R342
Res. Proj. 900-6436
CWHvm1
CWHvh1

APPENDIX 2: WOODLOT LICENCE PLAN MAP (PRIVATE PORTION)

Woodlot Licence
W1878
British Creek

Licensee:	Skip & Susan Plensky
Reference Map:	92L004
Datum:	NAD 83
UTM Zone:	9
TSA:	37 Strathcona
TSB:	B Kyuquot
FIZ:	B
P.S.Y.U.:	196
Inv. Reg.:	3
Comp.:	14K
Date:	Dec 05, 2008
Drafted By:	ECON

Campbell River
Forest District

Woodlot Licence Plan Map
Private Portion

N

Dec.: 19°02'E (2007)
Annual Change 12'W

1:5,000

0 25 50 100 Meters

econ

Okime Island

DL 1613

Walters Island

Kon Tiki Island

338 CH 851M6

Rolston Island

Legend

- Residence
- Woodlot, Private Portion

APPENDIX 3: ALTERNATIVE STOCKING STANDARDS

Table A: Alternative stocking standards

ADMINISTRATION

Vancouver Forest Region **Campbell River Forest District** **Licensee: Susan & Skip Plensky** **Woodlot Licence # W1878**

ID #	BEC		Preferred Species								Acceptable Species						Stocking (w/s)			Min Inter Tree Dist (m)	Regen Delay	FG Date	Tree Ht > Brush (Min %)	Post Spacing Density		Comments:
	Zone & variant	Site Series	1	Ht (min)	2	Ht (min)	3	Ht (min)	4	Ht (min)	1	Ht (min)	2	Ht (min)	3	Ht (min)	Target P&A (sph)	Min P&A (sph)	Min P (sph)	MITD (m)	Max (yrs)	Late (yrs)		Min	Max	
A	CWHvm1	01	Fd[2]	3.0	Cw	1.5	Hw	3.0	Ba	1.75							900	500	400	2.0	6	14	150	500	1500	None.
B	CWHvm1	02	Pl[4]	1.25	Fd[2]	2.0	Cw	1.0			Hw	2.0					400	200	200	1.5	3	11	150	200	800	Avoid logging. Xeric, nutrient poor site.
C	CWHvm1	03	Fd[2]	2.0	Hw	2.0	Cw	1.0			Pl[4]	1.25					800	400	400	2.0	6	14	150	400	1200	None.
D	CWHvm1	04	Fd[2]	3.0	Cw	1.5	Hw	3.0									900	500	400	2.0	3	11	150	500	1500	None.
E	CWHvm1	05	Fd[2]	3.0	Cw	1.5	Hw	3.0	Ba	1.75	Ss[5]	3.0														
F	CWHvm1	06	Cw	1.5	Hw	3.0	Ba	1.75			Ss[5]	4.0					900	500	400	2.0	6	14	150	500	1500	None.
G	CWHvm1	07	Cw	2.0	Hw	4.0	Ba	2.25			Ss[5]	4.0					900	500	400	2.0	3	11	150	500	1500	None.
H	CWHvm1	08	Cw	2.0	Hw	4.0	Ba	1.75			Ss[5]	4.0					900	500	400	2.0	3	11	150	500	1500	None.
I	CWHvm1	12[1]	Cw	1.0	Hw	2.0	Yc	1.0			Pl	1.25					800	400	400	1.5	3	11	150	400	1500	None.
J	CWHvm1	13[1]	Cw	1.0	Pl	1.25											400	200	200	1.5	3	11	150	200	800	Avoid logging.
K	CWHvm1	14[1]	Cw	1.5							Hw	3.0	Ss[5]	3.0			800	400	400	1.5	3	11	150	400	1500	None.
L	CWHvm1	01	Dr[9, 11]	4.0													1500	1000	800	1.5	3	11	150	800	1500	High density deciduous.
M	CWHvm1	05	Dr[7, 11]	4.0	Act[7, 11]												1500	1000	800	1.5	3	11	150	800	1500	High density deciduous.
N	CWHvm1	06	Dr[7, 8, 9, 11]	4.0													1500	1000	800	1.5	3	11	150	800	1500	High density deciduous.
O	CWHvm1	05/07/09	Dr[7, 8, 11]	4.0	Act[7, 8, 11]	4.0											1500	1000	800	1.5	3	11	150	800	1500	High density deciduous.

ID #	BEC		Preferred Species								Acceptable Species						Stocking (w/s)			Min Inter Tree Dist (m)	Regen Delay	FG Date	Tree Ht > Brush (Min %)	Post Spacing Density		Comments:
	Zone & variant	Site Series	1	Ht (min)	2	Ht (min)	3	Ht (min)	4	Ht (min)	1	Ht (min)	2	Ht (min)	3	Ht (min)	Target P&A (sph)	Min P&A (sph)	Min P (sph)	MITD (m)	Max (yrs)	Late (yrs)		Min	Max	
P	CWHvh1	01	Cw	1.5	Hw	2.0	Yc	1.5			Pl[4]	1.5	Ba	1.75	Ss[5]	3.0	900	500	400	2.0	6	14	150	500	1500	None
Q	CWHvh1	02	Cw	1.0	Yc	1.0	Pl	1.25									400	200	200	1.5	3	11	150	200	800	Avoid logging. Xeric, nutrient poor site.
R	CWHvh1	03	Cw	1.0	Hw	1.25	Yc	1.0	Pl	1.25							800	400	400	2.0	6	14	150	400	1200	None
S	CWHvh1	04	Cw	2.0	Hw	1.75	Ba	2.25			Ss[5]	4.0					900	500	400	2.0	6	14	150	500	1500	None
T	CWHvh1	05/06	Cw	2.0	Yc	2.0	Ba	2.25			Hw	1.75	Ss[5]	4.0			900	500	400	2.0	3	11	150	500	1500	None
U	CWHvh1	07	Cw	2.0	Ba	2.25					Hw	1.75	Ss[5]	4.0			900	500	400	2.0	3	11	150	500	1500	None
V	CWHvh1	08	Cw	2.0	Ss[5]	4.0					Ba	2.25					900	500	400	1.5	3	11	150	500	1500	None
W	CWHvh1	09[1]	Cw	2.0	Ss[5]	4.0					Ba	2.25					900	500	400	2.0	3	11	150	500	1500	None
X	CWHvh1	11[1]	Cw	1.0	Yc	1.0	Hw	1.25	Pl	1.25							800	400	400	2.0	3	11	150	400	1200	None
Y	CWHvh1	12[1]	Cw	1.0	Yc	1.0	Pl	1.25									400	200	200	1.5	3	11	150	200	800	Avoid logging.
Z	CWHvh1	13[1]	Cw	1.0	Yc	1.0					Hw	1.25					800	400	400	1.5	3	11	150	400	1200	Avoid logging.
AA	CWHvh1	14	Cw	1.0							Pl	1.25	Ss[5]	2.0			400	200	200	2.0	3	11	150	200	800	Avoid logging.
AB	CWHvh1	15	Cw	1.5							Ss[5]	3.0	Hw	2.0			900	500	400	2.0	3	11	150	500	1500	Avoid logging.
AC	CWHvh1	16	Cw	1.5	Ss[5]																					
AD	CWHvh1	17	Cw	1.0							Ss[5]	2.0	Hw	1.25			900	500	400	2.0	3	11	150	500	1500	Avoid logging.
AE	CWHvh1	16/18	Cw	1.25	Pl	1.25					Ss[5]	2.5					400	200	200	1.5	3	11	150	200	800	Avoid logging.

Foot Notes

1 Elevated microsites are preferred.
2 Restricted to south facing slopes (SSE to WSW) away from shore.
3 Pw must be free of blister rust within 10 cm of the stem and be pruned as per ministry guidelines or be blister rust resistant stock (≥ 50% resistance). Pw may occupy 5% on all sites except sites 04 & 05 where 20% will be the upper limit of the Free-Growing composition.
4 Restricted to nutrient-very-poor sites.
5 Risk of weevil damage, use resistant stock where possible. Ss will not exceed 20% of the free growing stand. Clumps not to exceed 0.1ha in size.
6 Yc can replace Cw on upper submontane sites.
7 Avoid exposed and windy sites.
8 Limited by poorly drained soils.
9 Suitable on sites lacking salal.
10 Suitable as a minor species on salal dominated sites.
11 Restricted to trial use. Regeneration is limited to a maximum of 1% of the total woodlot area.

Stocking Standards - General Comments

This table has been developed from the *Reference Guide for FDP Stocking Standards* dated March 15, 2007 and the standards established in the Woodlot Licence Forest Management Regulations (January 31, 2004) Division 2 of Part 6, Schedule A, Table A as well as the correlated guidelines and site interpretation for the Vancouver Forest Region (VFR). Where site series have similar stocking standards, they have been combined. Sections A-K are the general stocking standards for the CWHvm1, sections L-O are the high density deciduous stocking standards, and sections P-AE are the general stocking standards for the CWHvh1.

'BEC' refers to the Biogeoclimatic Ecological Classification system and includes the zone, subzone, variant and site series as described in the most recent field guide published by the Ministry of Forests for the identification and interpretation of ecosystems, as applicable to a harvested area.

Biogeoclimatic zone base mapping for woodlot W1878 indicates that the Crown portion is split between the CWHvh1 (very wet hypermaritime) and the CWHvm1 (very wet maritime) zones (see Appendix 3). However, ground truthing has shown that many ecosystems within the woodlot are most closely aligned with the characteristics of the CWHvm1. In particular the presence and good productivity of Douglas fir, which is typically neither a preferred nor acceptable species within the CWHvh1, suggest that CWHvm1 stocking standard guidelines are more applicable. This observation is attributed to the combined effects of the south facing slopes, steep shorelines that lead to rapid gains in elevation and minimize fog drip, the relative shelter from the open Pacific Ocean in Kyuquot Sound, and the fact that the woodlot is near the southern extent of the CWHvh1.

As such, the current BEC subzone mapping will be used only for initial reference. As recommended in *"A Field Guide for Site Identification and Interpretation for the Vancouver Forest Region"* for areas near biogeoclimatic unit boundaries, the subzone classification will be based on field verification. This will be done at the pre-harvest mapping phase and will be based on elevation, aspect, zonal and non-zonal vegetation, and the descriptions contained in Section 4.0 of the aforementioned field guide.

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

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

The minimum inter-tree spacing is generally reduced to 1.5 m under the following site-specific conditions: frequent bedrock, large blocky colluvium, hygric sites, and disturbed roadside areas amongst slash accumulations (up to 10 m from the travelled portion of the road). On machine mounded sites the minimum inter-tree spacing is reduced to 1.0 m.

The regen delay and late free growing dates are extended by four (4) and eight (8) years respectively for blocks harvested using a shelterwood or seed tree silviculture system (both systems employ natural regeneration). This is to allow for annual variation in seed production, natural regeneration establishment, and potentially slower initial growth rates due to lower light conditions. The harvest commencement date will be the start of the harvest entry (preparatory or establishment cut) that results in less than a fully stocked stand.

The late free growing date is extended by four (4) years for openings that are less than one hectare and for retention systems that retain greater than 10% of the initial stand to account for potentially slower initial growth rates due to a lower light regime. There is no extension to the regen delay date when artificial regeneration (planting) is prescribed.

Deciduous Management

Deciduous stocking standards are proposed for the CWHvm1 subzone where the Chief Forester's Reference Guide for FDP Stocking Standards indicate that they are a productive, reliable, and feasible regeneration option. However, there are currently only minimal amounts of deciduous species within the woodlot and there is no deciduous component to the current annual allowable cut. As such, regeneration of deciduous species will be limited to a trial basis and will not occupy more than 1% (4.0 ha) of the woodlot area at any time.

Recommended Regime: The product objective is to manage for high quality knot-free sawlogs on a 40 - 50 year rotation. Stand-establishment with high densities (1500 sph) is required to achieve a target of 1200 stems/ha at free growing. At approximately age 10 but not before stand height 12 to 16 m space to 900 stems/ha. Dead branch prune the crop trees early and continue density regulation treatments approx. every 10 years to maintain good crown forms and eliminate low quality stems.

The establishment of a second conifer layer (Cw, Ss) before or after density treatment is optional. If a cedar or Sitka spruce understory is planted in addition, then the natural pruning of the alder would be enhanced. The removal of the alder at harvest age is operationally possible, while leaving a fully stocked, semi-mature conifer pole stand remaining.

Where conifers are established underneath a designated deciduous stand, the stand's regeneration and free to grow status will be measured using the deciduous standards only. The minimum free growing height criterion for deciduous species is based on the tallest conifer standard for each site series. Damage criteria for deciduous species have not been formally established. General free-growing criteria will be adopted, such that well spaced stems will be of good form, health and vigour.

APPENDIX 4: ALTERNATIVE STOCKING STANDARDS FOR SPECIFIED AREAS

Specified areas include areas subject to commercial thinning, the removal of individual trees, areas subject to singe/group tree selection or other types of intermediate cutting, and areas subject to the harvest of special forest products.

Application of these stocking standards must consider the site-specific productivity, feasibility, and reliability of regenerating a multi-layered stand. Retained trees should have the silvic characteristics as well as sufficient live crown (typically >30%) to respond to increased light availability and be of suitable form to increase in volume and value over time. These stocking standards are not intended to act as a guide for commercial or pre-commercial thinning prescriptions.

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

Table B: Stocking Information for Specified Areas

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

*Stand Layer definition

Tree Layer 1	Mature	trees >= 12.5 cm dbh
Tree Layer 2	Pole	trees 7.5 cm to 12.4 cm dbh
Tree Layer 3	Sapling	trees >= 1.3 m height to 7.4 cm dbh
Tree Layer 4	Regeneration	trees < 1.3 m height

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

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

II. SUPPLEMENTAL INFORMATION REQUIRED TO BE SUBMITTED IN SUPPORT OF THE PROPOSED WOODLOT LICENCE PLAN

1. REVIEW AND COMMENT

ADVERTISING

This public review period for this plan was advertised in the North Island Gazette on December 11th and 17th, 2008. A copy of the advertisements is included with the referral correspondence in Section II-5 of this plan.

REFERRALS

This plan has been referred directly to the following agencies and/or groups:

Kyuquot-Checleset First Nation
P.O. Box 218
Kyuquot, B.C., V0P 1J0
Phone: 250-332-5259
Fax: 250-332-5210

Eric Mikkelson, Guiding Certificate # 100672

Stephen Cross, Aquametrix Research
Shellfish Lease holder, Crown Lands File #1402204

COPY OF WRITTEN COMMENTS RECEIVED

The licensee, and Erik Holbek, RPF, has reviewed all comments received. All comments received are included with the referral correspondence in Section II-5 of this plan.

REVISIONS MADE AS A RESULT OF COMMENTS RECEIVED

Revisions were made to this plan based on comments received from Jim Simpson and Aaron Smeeth at the Ministry of Forests and Range. Details of the changes are summarized in the letter accompanying the final submission of this plan to the Ministry of Forests and Range. No changes were made based on comments received from any other stakeholders.

2. CONSULTATION WITH FIRST NATIONS

Copies all letters, minutes, and correspondence are included with the referral correspondence in Section II-5 of this plan.

3. EXEMPTIONS

N/A

4. RATIONALE IN SUPPORT OF PROPOSED ALTERNATIVE PERFORMANCE REQUIREMENTS

STOCKING STANDARDS

Alternative stocking standards are proposed given the location and the licensee's full intent to facilitate intensive forest management and to improve site productivity and species/product diversity. Additionally, existing standards with respect to the use of broadleaf species lack measurable and enforceable standards for implementation and are therefore defined further within the alternative stocking standards. Full details and listing of the stocking standards are provided in Appendix 3.

All areas of harvest will undergo pre-harvest mapping as per Section 33 of the Woodlot Licence Planning and Practices Regulation. At that stage the fundamental decision will be made if either conifer or a broadleaf standard will apply and the Standard Unit ID will be assigned.

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

The Chief Forester's stocking standards indicate black cottonwood (Act), red alder (Dr) and bigleaf maple (Mb) as being a productive, reliable and feasible regeneration options on several site series within the CWHvm1 and CWHvh1. The attached Alternative Stocking Standards include the standards for both pure broadleaf stands and mixed woods regeneration. The use of broadleaf species is proposed in consideration of the Chief Foresters memorandums dated August 22nd, 2000 and May 1st, 2008 and the supporting note 'Common Principles for the Management of Red Alder within the Coast Forest Region' dated August 2004.

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

Hibbs et al. The Biology and Management of Red Alder (1994),
E.B. Petersons et al. FRDA Report 250 – Black Cottonwood and Balsam poplar manager's handbook for British Columbia (1996).
L. Sigurdson et al. 2nd draft report on Weyerhaeuser's Red Alder Management Practices (1998),
P.J. Courting et al. Forest Research Extension Note 016 - Red Alder management trials in the Vancouver Forest Region (2002).

The minimum density post-spacing shown corresponds to the values recommended in the Establishment to Free-growing Guidebook for the VFR– i.e. the same as the minimum-stocking standard for conifer stands.

Higher stocking is noted for the deciduous stands to ensure self-pruning and may include a conifer component. The maximum density post-spacing has been increased to allow for two-stage spacing entries in order to manage snow press, blow-down risks and provide the opportunity to capture the small-diameter resource.

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

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

The stocking standards for specified areas are consistent with the default, with one exception. In the case of deciduous stands established under this WLP where initial stocking densities will be 1000-1200 sph (see appendix 3 alternative stocking standards), and where these stands may be in the future subject to commercial thinning. These represent a reduction in the targets and minimums for tree layer 1 as compared to the default standards. The reason for this is that the default standards have been developed for conifer stands, which have different crown characteristics from deciduous species. Under deciduous management regimes, while initial densities will be higher to promote self-pruning and encourage stem development, lower target thinning densities in managed stands may be applied during later stages of the rotation.

5. REFERRAL CORRESPONDENCE

For more information contact:

econ consulting
PO Box 329
Merville, BC V0R 2M0
Phone 250-337-5588
Fax 250-337-2063
e-mail mail@econ.ca
WEB www.econ.ca