WOODLOT LICENCE W1900

WOODLOT LICENCE PLAN

TERM – 10 YEARS

August, 2007 to August, 2017

Campbell River Indian Band
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Authorized Licensee Signature: _____

Corby Lamb, June 27, 2007

Registered Professional Forester Signature: _____

John Marlow, R.P.F. June 27, 2007

DISCLAIMER:

Recognizing the special nature of management on a Woodlot Licence, this disclaimer forms part of the Woodlot Licence Plan (WLP) for Woodlot Licence W1900 and advises that:

- The decision to operate under one or more of the Default Performance Requirements (DPR) provided in the Woodlot Licence Planning and Practices Regulation (WLPPR) is the sole responsibility of the woodlot license holder. This disclaimer is signed under the explicit understanding of information provided by government that, the use and achievement of a DPR meets the expectations of government with respect to the management of Woodlot Licences.
- The undersigned Registered Professional Forester has been retained to provide advice on the practice of professional forestry with regards to items such as alternative performance requirements that do not have a default performance requirement provided in the Woodlot Licence Planning and Practices Regulation (WLPPR).

Signed:_____

Name: John Marlow, R.P.F.

RPF #: 2638 Contact # 250 285-2544

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INTRODUCTION

Woodlot Licence W1900 located at Heydon Bay at Loughborough Inlet was awarded to the Campbell River Indian Band in 2003 following Ministry of Forests (MOF) approval of the Management Plan.

Forest Management Activities at Woodlot Licence W1900 are now into the sixth year and harvesting is scheduled to commence soon after the approval of this WLP.

2. Mandatory Content for a Woodlot Licence Plan

2-1 Plan Area

Woodlot Licence W1899 is located at Heydon Bay and consists of two small areas of reserve lands (Schedule A Land) and one parcel of provincial forest (Schedule B Lands). The private land is also located at Heydon Bay and includes 8.0ha. The Provincial Forest portion of Woodlot Licence W1900 includes 400ha at Heydon Bay. This Woodlot Licence Plan (WLP) covers the entire area of the woodlot.

All of Woodlot Licence W1611 is located in the Coastal Western Hemlock (CWH) biogeoclimatic zone, and is further stratified as being located in the 'very wet maritime' (vm1) subzone.

2-2 Map and Information

A 1:150,000 scale 'Key Location Map' is provided in Appendix A1, and detailed 1:10000 scale WLP maps are provided in Appendix A2.

2-3 Higher Level Plans / Government Objectives

Operations at Woodlot Licence W1900 are generally guided by the Campbell River Indian Band's Strategic Plan and the Management Plan for Woodlot Licence W1900. Woodlot Licence is also within the area of the Central Coast Land and Resource Management Plan (CCLRMP).

In addition to these higher level plans, the Campbell River Forest District has established 'Recreation Resource Features (Establishment of Recreation Sites and Trails), 'Known Scenic Areas' and 'Visual Quality Objectives' for areas included in Woodlot Licence W1900.

2-4 Areas Where Timber Harvesting Will Be Avoided

Biodiversity Management and riparian and fisheries management are a high values in general management practices at Woodlot Licence W1900. As per Table 1, several areas have been designated as Wildlife Tree Patches (WTP's) to provide for long-term biodiversity and stand structural diversity value. In addition to these WTP's, all Riparian Reserve Zones (RRZ'z) are also included as 'Areas Where Timber Harvesting will be Avoided.

In total 64ha +/- or 16% of Woodlot Licence W1900 is included in permanent reserves as RRZ's, WTP's, and shoreline buffers. These reserve areas are indicated on the WLP Maps.

Table 1: Woodlot Licence W1611 Permanent Reserves

Reserve Name	Location	Area
WTP1	South of Heydon Bay – Schedule A Lands	0.5ha
WTP2	NW of Heydon Bay – Schedule A Lands	0.8ha
WTP3	NW of Heydon Bay along foreshore – Schedule A Lands	1.7ha
WTP4	Heydon Creek Riparian Reserve – Schedule B Lands.	22.8ha
WTP5	Roberts Creek Old Growth Reserve – Schedule B Lands	1.2ha
WTP6	Roberts Creek Old Growth Reserve – Schedule B Lands	1.0ha
WTP7	NW portion of Woodlot W1900 – Old Growth / Terrain Stability Reserve	3.6ha
Riparian	General RRZ'z – Schedule A and B Lands	32.2
Total Reserve		63.9ha

2-5 Areas Where Timber Harvesting Will Be Modified

All areas classified as having a Visual Quality Class are considered to be 'Areas Where Timber Harvesting Will Be Modified' for the purpose of this WLP. The Heydon Bay Visual Polygon has a 'Visual Quality Objective of Modification". The definition of Modification (Forest Planning and Practices Regulation, Section1.1) is: (d) *modification*: consisting of an altered forest landscape in which the alteration, when assessed from a significant viewpoint is (i) very easy to see, and (ii) is (A) large in scale and natural in its appearance, or (B) small to medium in scale but with some angular characteristics. This visual quality class definition is from the Forest Planning and Practices Regulation (FPPR) which applies to major licensees. Woodlot Licence planning is governed by the Woodlot Licence Planning and Practices Regulation (WLPPR) where these definitions are adopted for use. Section 1(1) of the WLPPR states 'unless otherwise indicated, words and expressions not defined in this regulation have the meaning given to them in section 1 *[definitions]* of the Forest Planning and Practices Regulation'.

A 'Special Management Zone' has been established along Heydon Creek for the protection of high fisheries value of this stream. The objective is to apply less intense timber management along this stream and to the rotation ages along the stream to twice the culmination age. This generally entails the use of partial cutting systems including uniform retention, group selections, or narrow strips. At any given time, 50% of the stand has to consist of trees that have reached or passed their culmination age.

Table 2: Areas Where Timber Harvesting Will be Modified

Modified Harvest Area Name	Purpose	Area
Heydon Bay Visual Polygon	Visual landscape management as viewed from Loughborough	(13.4ha) included in Heydon Bay Visual Polygon
Heydon Creek Special Management Area	Riparian and Biodiversity Management along Heydon Creek	66.5ha
Riparian Management Zones	Riparian and Biodiversity Management along all streams	47.5
Total Modified Harvest Area		114.0ha

In addition to the Modified Harvest Areas outlined in Table 2, harvesting will also be modified in the following areas:

Riparian Management Areas
All fish-bearing streams with a stream width >1.5m have both a Riparian Reserve Zone (RRZ) and a Riparian Management Zone (RMZ). Fish-bearing streams <1.5m and all non-fish streams have a RMZ only. Harvesting is prohibited in all RRZ other than for special circumstances such as stream crossings. The RMZ for all streams designates areas of riparian influence and these RMZs are often areas of high ecological value. All RMZs will be assessed site specifically and appropriate leave tree strategies will be developed for each situation. Non clear-cut harvesting systems will be utilized at all RMZ's. A minimum of 10 co-dominant trees / hectare will be maintained at all RMZ and the range of retention will be between 10 trees / ha and full retention.

2.6 Protecting and Conserving Cultural Heritage Resources

Prior to the award of Woodlot Licence W1900, the Ministry of Forest conducted an 'Archaeological Overview Assessment' (Golder and Associates, June 1999). This assessment describes 3 distinct classes for Archaeological Resource (AR) potential (low III, moderate II, and High I), and 2 classes for Culturally Modified Tree (CMT) potential (moderate II, and high I).

Private Portion 1 – This area has AR potential of Class I (high) adjacent to the shores of Heydon Bay, and Class II further inland. No CMT potential has been identified.

Private Portion 2 – This area has AR potential of Class I (high) adjacent to the shores of Heydon Bay, and Class II further inland. No CMT potential has been identified. A Campbell River First Nation representative conducted a walk-through CMT survey in 2002 and determined there were no CMT's inside the Woodlot Licence W1900 area of private land portion 2.

Western Crown Portion – This area has large area types out as AR potential of Class II (high) with some class I area adjacent to the Heydon Bay Lake. Where there is presence of older stands (polygons 171, 175), Class I/II CMT potential has been identified.
Eastern Crown Portion – This area has Class I AR potential along the southern shoreline adjacent to Heydon Bay with Class II AR potential further inland. Class II CMT potential has been identified along the northwestern boundary where there is an older stand remaining.

For the preparation of future cutblocks and ecological mapping, blocks that fall within a polygon of moderate or high AR potential will be reviewed by an archaeologist. Blocks that fall within moderate or high CMT potential will be CMT surveyed.

During all fieldwork associated with Woodlot Licence W1900, care will be taken to recognize and record any archaeological or historic evidence found within the Woodlot Licence area. Should any archaeological features be identified, affected first nations as well as the Ministry of Forests will be contacted and an appropriate management strategy will cooperatively be developed. Operations will cease both at the archaeological feature as well as in the near vicinity of that feature and the affected First nations will be contacted to review the archaeological feature and to develop a strategy for forest management in close proximity to that feature.

The Cape Mudge First Nation, Comox First Nation, Homalco First Nation, Tlowitsis First Nation have all received a copy of this WLP map and the Hamatla Treaty Society has received a full copy of this WLP.

The licensee (Campbell River Indian Band) is committed to working with any other First Nations affected by this WLP in regards to resource use of the area. This includes First Nation requests for use of traditionally used plants in the WLP area and any information sharing requests by first nations which may arise following approval of this WLP. In addition, the licensee is committed to working with other First Nations in regards to provision of opportunities for Monumental Cedar for traditional and cultural purposes. The licensee is also committed to cooperatively working with other affected First Nations, major licensees, and the Ministry of Forests to collectively develop a cedar strategy.

If requested by other affected first nations, the licensees commits to discuss any current or future block specific operational plans at any time during the term of this Woodlot Licence Plan.

2.7 Wildlife Tree Retention Strategy

The default standard for wildlife tree retention (Woodlot Licence Planning and Practices Regulation (WLPPR) section 52(1)) is " The proportion of the Woodlot Licence area that is occupied by wildlife tree retention areas is no less than, a) the proportion specified for the area in a higher level plan, or b) the proportion specified in a WLP, or c) 8%.

Permanent reserves currently occupy 16% of Woodlot Licence W1900.

2.7.1 Individual Wildlife Trees

a) Species and Characteristics

Harvesting at Woodlot Licence W1900 utilizes patch cut silviculture systems, retention silviculture systems, shelterwood silviculture systems, or commercial thinning silviculture systems where various levels of forest retention are prescribed. With all these systems, a percentage of individual trees are retained subject to the ecological and geographic characteristics of the area.

Selection of trees for 'Wildlife Trees' will be based on current Wildlife / Danger Tree assessment procedures where all trees can be classified between class 1 and 8 based on the quality of that tree for wildlife value. Classes 1 and 2 are live trees, trees 3-7 are dead standing trees, and class 8 and 9 are dead fallen trees. By default, tree classes 4-8 are all reserved from harvest as there is generally no merchantable log value in those trees. Tree Class 3 are recently dead but are sound and have high wildlife tree value. These trees will be selected where safety permits. Tree class 1 and 2 are live trees with class 1 being healthy and tree class 2 being unhealthy. These trees provide long-term wildlife tree value as those trees will ultimately deteriorate in quality and ultimately become higher tree classes. It is important to identify a variety of tree classes for wildlife trees to provide many biodiversity values (nesting, roosting, feeding) for a variety of species (birds, reptiles, amphibians, insects) at all times.

"Good" Characteristics of wildlife trees include some or all of the following features:

- Greater than 15m in height,
- At least 30cm in diameter for species such as woodpeckers, martens or owls,
- Smaller diameter for species such as chickadees and nuthatches,
- Broken tops,
- Some intact bark and branches
- Forks and crooks,
- Windfirmness.

Where possible, individual wildlife trees will be selected based on trees that exhibit these features.

b) Conditions Under Which Individual Wildlife Trees May be Removed

Trees specifically identified as 'Wildlife Trees' are generally planned for permanent retention. These trees are considered to have biodiversity / wildlife tree value even if they fall to the ground as the trees provide coarse woody debris which has value for habitat, food for a variety of species, nutrient cycling for forest soils, etc.. These trees will be removed if they pose a safety hazard and block access. Wildlife trees will be designated in the Site Plan for each cutblock.

c) Replacement of Individual Wildlife Trees

As wildlife trees will generally be retained should they fall, replacement of these trees is not essential. In addition, a substantial number of wildlife trees exist in the 18% of the woodlot included in permanent reserves. As harvesting progresses, additional wildlife trees and wildlife tree patches will be established.

2.7.2 Wildlife Tree Retention Areas

a) Table 3 – Wildlife Tree Retention Areas and Forest Cover Attributes

Reserve Name	Forest Cover Attributes	Function
WTP 1	**Polygon 231 – HB 3407 Site Index 32**	**Biodiversity management, preservation of riparian values and old growth.**
WTP 2	**Polygon 234Ep – HCF 4407 Site Index 19**	**Biodiversity management, protection of ecologically sensitive sites, old growth preservation.**
WTP 3	**Polygon 233 – HFC 4407 Site Index 26**	**Biodiversity management, old growth recruitment, visual landscape management.**
WTP4	**Polygon 30Ep – HB 2303 Site Index 30 Polygon 32 – D(HB) 3306 Site Index 28**	**Biodiversity management, maintenance of riparian ecosystems Heydon Creek.**
WTP5	**Polygon 31 – HC(B) 3408 Site Index 33 Polygon 175 – CH(B) 8416 Site Index 20**	**Biodiversity management, old growth preservation and recruitment.**
WTP 6	**Polygon 31 – HC(B) 3408 Site Index 33**	**Biodiversity management, old growth preservation and recruitment.**
WTP 7	**Polygon 177 – CH(B) 8416 Site Index 20**	**Biodiversity management, old growth preservation and recruitment.**
Riparian Reserve Zones	**Throughout Woodlot Licence area.**	**General Riparian Values**

b) Conditions Under Which Trees May be Removed from Wildlife Tree Retention Areas.

Trees can only be removed from Wildlife Tree Retention Areas for public safety of for access to areas beyond the Wildlife Tree Retention Area.

c) Replacement of Trees Removed from Wildlife Tree Areas

As trees will not be removed from wildlife tree areas, a replacement strategy is generally not required. Should a substantial number of wildlife trees be lost due to wind, etc., and if the appropriate strategy would be to remove these trees, those wildlife trees will be replaced with a similar number and types of wildlife trees. A limited number of trees may be removed for safety or access issues but the biodiversity value of these trees is accounted for in the extensive reserves and individual trees retained throughout the woodlot licence area. Where individual wildlife trees area removed (access or safety) these trees will be replaced with alternate wildlife trees or a similar wildlife tree class.

2.8 Measures to Prevent the Introduction or Spread of Invasive Plants

Appendix 4 contains the 'Invasive Plants Regulation' where "Known" invasive plants of British Columbia are recognized.

It is a general policy at Woodlot Licence W1900 that native plants are allowed to vegetate skid trails and roadsides where experience has shown that natural vegetation is effective. Where roadside application of grass-seed mixture is required, seed mixtures free of invasive plant seed will be used. When roads are built at Woodlot Licence W1900, road surfacing is generally created onsite either by developing gravel quarries or drilling and blasting rock quarries. As the surface vegetation and humus layer of the soil is removed in the development of these rock sources, the surface material is 'clean' gravel of rock and will minimize the spread of invasive plants. The licensee commits to continue to use 'clean' surfacing material for road construction at Woodlot Licence W1900.

2.9 Measures to Mitigate the Effect of Removing Natural Range Barriers

As there are no natural range barriers within Woodlot Licence W1900, there are no measures proposed to mitigate the effect of removing or rendering ineffective natural range barriers.

2.10 Stocking Standards for Specified Areas

Areas subject to removal of individual trees, harvest of special forest products, or other types of intermediate cutting are considered 'Specified Areas' for the purpose of this Woodlot Licence Plan. Examples of this type of situation would be minor blowdown salvage, small market opportunities in special forest products, or salvage of diseased or damaged timber. At these 'Specified Areas' stands will be generally be maintained fully stocked post harvest. Where opening are > 0.1 ha in size, these areas will be reforested and basic silviculture (even-aged) will apply. These activities are permitted anywhere in the Woodlot Licence Area other than areas where 'Timber Harvesting Will be Avoided'.

For these areas, the 'Uneven-Aged Stocking Standards' as found in the MOF Publication "Reference Guide for FDP Stocking Standards" are adopted.

2.11 Performance Requirements

2.11.1 Soil Disturbance Limits

Accept Default Performance Requirement – Section 24(1), Woodlot Licence Planning and Practices Regulation.

- 8% of Net Area to be Reforested

2.11.2 Permanent Access Structures

Accept Default Performance Requirement – Section 25, Woodlot Licence Planning and Practices Regulation.

- The maximum area occupied by permanent access structures is as follows:
  - Cutblocks ≥ 5ha = 7% of cutblock area
  - Cutblocks < 5ha = 10% of cutblock area
  - Total Woodlot Area = 7% of Woodlot Licence area

2.11.3 Use of Seed
Accept Default Performance Requirement – Section 32, Woodlot Licence Planning and Practices Regulation.

- The Chief Forester's Standards for seed use are adopted for this WLP.

2.11.4 Stocking Standards
Accept Default Performance Requirement – Section 35, Woodlot Licence Planning and Practices Regulation.

- The stocking standards described in the MOF publication 'Reference Guide for Forest Development Plan Stocking Standards' as amended from time to time, which are in effect at the time of harvest for each cutting permit.

2.11.5 Width of Stream Riparian Areas
Accept Default Performance Requirement – Section 36(4), Woodlot Licence Planning and Practices Regulation.

2.11.6 Width of Wetland Riparian Areas
Accept Default Performance Requirement – Section 37(3), Woodlot Licence Planning and Practices Regulation.

2.11.7 Width of Lake Riparian Areas
Accept Default Performance Requirement – Section 38(2), Woodlot Licence Planning and Practices Regulation.

2.11.8 Restrictions in a Riparian Reserve Zone
Accept Default Performance Requirement – Section 39, Woodlot Licence Planning and Practices Regulation.

- Cutting, modifying, or removing trees in a riparian reserve zone is limited to the purposes described in section 39(1) of the Woodlot Licence Planning and Practices Regulation.
  - felling or modifying a tree that is a safety hazard, if there is no other practicable option to address the safety hazard
  - topping or pruning a tree that is not windfirm
  - constructing a stream crossing
  - creating a corridor for full suspension yarding
  - creating guyline tiebacks
  - carrying out a sanitation treatment
  - felling or modifying a tree that has been windthrown or has been damaged by fire, insects, disease, or other causes if the felling or modifying will not have a material adverse impact on the riparian reserve zone.
  - felling or modifying a tree for the purpose of establishing or maintaining an interpretive forest site, recreation site, recreation feature or recreation trail
- Restrictions on constructing a road in a riparian reserve zone are as described in section 39(2.1) of the Woodlot Licence Planning and Practices Regulation.
  - A woodlot licence holder must not construct a road in a riparian reserve zone unless the construction has been specified in a Woodlot Licence Plan.

2.11.9 Restrictions in a Riparian Management Zone

Accept Default Performance Requirement – Section 40, Woodlot Licence Planning and Practices Regulation.

- Construction of a road in a riparian management zone is limited to the conditions described in section 40(1) of the Woodlot Licence Planning and Practices Regulation
  - the construction of the road is provided for in the WLP
  - locating the road outside the riparian management zone would create a higher risk of sediment delivery to the stream, wetland, or lake to which the riparian management zone applies
  - there is no other practicable option for locating the road
  - the road is required as part of a stream crossing
- 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 of the Woodlot Licence Planning and Practices Regulation.

2.11.10 Wildlife Tree Retention

Accept Default Performance Requirement – Section 52(1), Woodlot Licence Planning and Practices Regulation.

- The proportion of the Woodlot Licence area that is occupied by wildlife tree retention areas is no less than 8%.

2.11.11 Coarse Woody Debris

Accept Default Performance Requirement – Section 54(1), Woodlot Licence Planning and Practices Regulation.

- Minimum retention of 4 logs per hectare ≥5.0m in length and ≥30cm diameter at one end.

2.11.12 Resource Features

Accept Default Performance Requirement – Section 56(1), Woodlot Licence Planning and Practices Regulation.

- Forest practices will not damage or render ineffective a resource feature.