WOODLOT LICENCE W2003 WOODLOT LICENCE PLAN

2023 to 2033

Robert and Machelle Beede 1 Elk Bay Forest Service Road Campbell River, BC V9H 1R7 Email: elkbaybob@gmail.com

Phone: work: 250-202-1313 Cell: 250-202-1313

Authorized Licensee Signatures:

Print Name
Robert F. Beede
Signature
Print Name Machelle M. Beede
Machelle M. Beede Signature
Machelle M. Beede
June 22,2023

DISCLAIMER

This disclaimer forms part of the Woodlot Licence Plan (WLP) for Woodlot Licence # W2003 and advises that:

- The decision to operate under one or more of the Practice Requirements provided in the Woodlot Licence Planning and Practices Regulation (WLPPR) is the sole responsibility of the woodlot licence holder.
- This disclaimer is signed on the explicit understanding that abiding by the Practice Requirements stated in Parts 3 and 4 of the WLPPR meets the expectations of government with respect to the management of woodlot licences;
- The undersigned Registered Professional Foresters have been retained with respect to the practice of professional forestry as it pertains to alternative performance requirements, results, strategies, standards and measures presented in this WLP.



Brian Smart, RPF # 2813, Econ Consulting Ltd.

Peer review by Len Apedaile, RPF# 2324, Econ Consulting

Econ Consulting phone number: 250-337-5588 Email: mail@econ.ca

24 July 2023 ii

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I. WOODLOT LICENCE PLAN (WLP) REQUIRED CONTENT

PLAN AREA

\boxtimes	This plan cove	rs the entire	Woodlot Licence	area
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This plan covers the entire 765.6 ha included in Woodlot License W2003. The woodlot licence area consists entirely of Crown land and is located approximately 30 km northwest of Campbell River. The woodlot is bounded by the Rock Bay road to the West, Highway 19 (Island Highway) to the South and is between the Southern ends of McCreight and Pye Lakes.

MAP AND INFORMATION

Information Item	Map	Text	N/A*
Forest cover	X		
Topography (unless exempted by DM)	X		
Location and riparian class of streams, wetlands and lakes as shown on	X		
government endorsed forest cover maps, terrain resource inventory			
maps, & fish habitat inventory maps			
Identification of fish streams on government endorsed maps	X		
Biogeoclimatic zones and subzones (unless exempted by DM)		X	
Public utilities (transmission lines, gas & oil pipelines, and railways)	X		
Special Situations that may not apply to the WL area			
Resource Management Zones, Landscape Units or Sensitive Areas		X	
Wildlife Habitat Areas (unless exempted by DM)	X	X	
Scenic Areas	X	X	
Ungulate Winter Ranges	X	X	
Community Watersheds			X
Fisheries Sensitive Watersheds			X
Community and domestic water supply intakes that are licensed under			X
the Water Act and any related water supply infrastructures			
Contiguous areas of sensitive soils	X		
Existing roads	X		
Temporary or permanent barricades to restrict vehicle access		X	
Private property within or adjacent to the woodlot licence area			X
Resource features other than wildlife habitat features and		X	
archaeological sites (unless the location of the resource feature is not to			
be disclosed)			
be disclosed) * N/A is "not applicable" as these features are not within an do not apply to V	12002		<u> </u>

^{*} N/A is "not applicable" as these features are not within or do not apply to W2003.

BIOGEOCLIMATIC ZONES AND SUBZONES

The woodlot licence area is compromised of the following biogeoclimatic subzones:

Coastal Western Hemlock biogeoclimatic zone, Very Dry Maritime subzone, Western variant (CWHxm2) and the Moist Maritime subzone Submontane variant (CWHmm1)

RESOURCE MANAGEMENT ZONES, LANDSCAPE UNITS OR SENSITIVE AREAS

The entire woodlot licence area is within the Vancouver Island Land Use Plan Zone 31 which is General Resource Management and has no specific management objectives.

The entire woodlot licence area is within the Sayward Landscape Unit Plan (SLUP).

The SLUP objectives were legally established under the *ORDER TO ESTABLISH A LANDSCAPE UNIT AND OBJECTIVES SAYWARD LANDSCAPE UNIT* July 1, 2003. Established legal objectives can be found here: https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/land-water-use/crown-land/land-use-plans-and-objectives/legal-orders/campbellriver_lu_sayward_fpc_1jul2003.pdf

The results and strategies to meet the SLUP higher level plan objectives that are applicable to W2003 are as follows:

Objective 1:

Result: One OGMA has been established within W2003 that completely overlaps with Ungulate Winter Range. See Areas where timber harvesting will be avoided, below.

Objective 2:

Strategy: The Woodlot Licence holder will retain wildlife tree retention areas to a level of 8% as per the WLPPR section 52 (1) (c).

Objectives 3 and 4 of the SLUP which are to provide for ungulate winter range, visual cover and spring forage for elk and black-tailed deer through seral stage management does not apply to woodlots as per FRPA Section 13(3).

Objective 5:

Result: The W2003 holder will meet the objective to protect the one Critical Stream Reach within W2003.

Objective 6:

As per FRPA 13(3) this objective, relating to cutblock size, is not applicable to a woodlot licence.

Marbled Murrelet

BC Woodlot Licence Planning and Practices Regulation Section 9 Notice – Indicators of the Amount, Distribution and Attributes of Wildlife Habitat Required for the Survival of Marbled Murrelet (Brachyramphus marmoratus) December 2, 2021

Land Act s.93.4 Order for the Recovery of Marbled Murrelet (Brachyramphus marmoratus) December 2, 2021

There is no Marbled Murrelet suitable nesting habitat within W2003 so no result or strategy has been developed to meet the Order and Notice.

WILDLIFE HABITAT AREAS

Wildlife Habitat Area WHA 1-091 is partially located within the WLP area. Its location is identified on the map in Appendix 3.

SCENIC AREAS

There are scenic areas located within the WLP area. They are identified on the map in Appendix 3 and include Visual Quality Objectives (VQO) of Partial Retention and Modification. The woodlot licence holder will ensure that all VQOs, as defined in FPPR section 1.1, are met.

UNGULATE WINTER RANGES

✓ To manage for the winter survival of black tailed deer Ungulate Winter Range/OGMA U-1-005 has been established over a
 ✓ portion of the WLP area identified on the map in Appendix 3.

COMMUNITY WATERSHEDS

There are no Community Watersheds located in whole or in part within the WLP area.

FISHERIES SENSITIVE WATERSHEDS

There are no Fisheries Sensitive Watersheds located in whole or in part within the WLP area.

COMMUNITY AND DOMESTIC WATER SUPPLY INTAKES THAT ARE LICENSED UNDER THE WATER SUSTAINABILITY ACT AND ANY RELATED WATER SUPPLY INFRASTRUCTURES

There are no community or domestic water supply intakes or related water supply infrastructures within the WLP area or nearby that could be affected by operations carried out under this plan.

CONTIGUOUS AREAS OF SENSITIVE SOILS

The locations of contiguous areas of sensitive soils are identified on the map in Appendix 3 as class 4 and 5 terrain.

TEMPORARY OR PERMANENT BARRICADES THAT RESTRICT VEHICLE ACCESS

ACCES!

At the time of preparing this woodlot licence plan there were no permanent or temporary barricades on the WLP area to restrict vehicle access.

PRIVATE PROPERTY WITHIN OR ADJACENT TO THE WLP AREA

There is no private land adjacent to W2003.

RESOURCE FEATURES OTHER THAN WILDLIFE HABITAT FEATURES AND OTHER FEATURES WHERE THE LOCATION MUST NOT BE DISCLOSED

The following resource features are found within the woodlot license area:

Old Growth Deferral Polygons

There is one old growth forest polygon of the "remnant" variety within the W2003 tenure area that is being voluntarily deferred from harvesting pending the outcome of the Provincial Old Growth Strategic Review planning process. It is identified on the WLP map as "Old Growth Deferral".

Karst

A Government Actions Regulation (GAR) order to identify karst resource features was established in the Campbell River Forest District on May 30, 2007. This order identified karst caves, significant surface karst features, and important features and elements within very high or high vulnerability karst terrain as resource features.

The BC iMap karst layer does not show karst potential within W2003 or nearby. If karst features are identified in the woodlot during field surveys and engineering the licensee will consult the *Karst Management Handbook for British Columbia (May2003)* and the Provincial guidance document *Karst Inventory Standards and Vulnerability Assessment Procedures for British Columbia version 2.0* (January 2003) to ensure that forest operations will not damage or render ineffective any karst resource feature as specified in the GAR order.

The following resource features are found within the woodlot license area:

The GAR Order, *Order to Identify Recreation Resource Features for the Campbell River Forest District* April 12, 2006, identified recreation resource features within the W2003 tenure area. The Alder Grove and Sitka Spruce Beach Recreation Sites are located within the McCreight Recreation Unit and are located adjacent to the northwest corner of W2003. Forestry activities within W2003 will not render ineffective the recreation sites at McCreight Lake.

Growth and Yield Plots

There are six active Provincial growth and yield plots (G&Y) within the W2003 tenure area in the northwest corner of the woodlot. Five of the plots are 13m in diameter and one

is 18m in diameter. These plots must not be disturbed and have a 100 m protective noharvest buffer around each one of them. These G&Y plots are shown on the WLP map. The W2003 licence holder will check with Ministry research staff when planning development in the areas near these plots and buffers to ensure that the development does not disturb the plots.

AREAS WHERE TIMBER HARVESTING WILL BE AVOIDED OR MODIFIED

Areas where timber harvesting will be AVOIDED:



Timber harvesting will be avoided in the following areas:

- Within UWR/OGMA U-1-005 and
- Within WHA 1-091.
- Within the central 13 or 18 m G&Y plots. (not including 100m buffers)
- Within the Old Growth Deferral "remnant" variety polygon until the Provincial Old Growth Strategic Review planning process has been completed and the final conservation status of the polygon has been determined.

Areas where timber harvesting will be MODIFIED:



Areas within the woodlot where timber harvesting will be modified to protect and manage resources include the following:

Critical Stream Reaches

Critical stream reaches have been established by the Sayward Landscape Unit Plan legal order and are shown on the woodlot licence plan map. Timber harvesting may be modified for their appropriate management. The management objective for them is to:

retain all windfirm trees with roots embedded in the stream bank; and

for S4 streams, retain 50% of the stems, representative of species age and size, within 10 m of the channel.

Scenic areas

Timber harvesting may be modified to meet the VQOs established within scenic areas in the Woodlot tenure area. VQOs of Modification and Partial Retention have been designated and are shown on the woodlot Plan Map in Appendix 3.

Cultural Heritage Resources

If cultural heritage resources are identified within the woodlot tenure area their appropriate management may result in the modification of timber harvesting operations. See the section Conserving and Protecting Cultural Heritage Resources, below.

Areas of Sensitive Soils,

Harvesting may be modified in areas of steep slopes or of dispersed rock.

Buffers around G&Y plots.

G&Y plots will not be harvested until they are no longer in use, however their buffers may have some levels of modified harvesting within them for salvage, access or forest

health harvesting, or full harvesting if permitted by the Forest Sciences Officer monitoring the plots.

Riparian Management Zones

Harvesting within Riparian Management Zones may be modified to retain trees as described in the section *Retention of Trees in a Riparian Management Zone*, below.

RETENTION OF TREES IN A RIPARIAN MANAGEMENT ZONE

Unless exempted or as provided for under WLPPR section 40, the following describes the retention of trees in a riparian management zone following timber harvesting:

Trees of any species, age, size or form that are present within a Riparian Management Zone (RMZ) may be acceptable as retention trees. To the extent practicable, non-merchantable trees and understory vegetation will be retained within 5 meters of the channel or wetland where there is no reserve zone.

Retention levels in Riparian Management Zones will be as follows:

Riparian Class	Management Intent	Minimum Basal Area to be Retained Within RMZ (%)
S1-A or S1-B stream	Maintain integrity of the RRZ Assist in maintaining wildlife habitat attributes within the RMA such as wildlife tree cover, nesting and perching habitat and diversity of vertical forest structure	≥20
S2 stream	Maintain integrity of the RRZ Assist in maintaining wildlife habitat attributes within the RMA such as wildlife tree cover, nesting and perching habitat and diversity of vertical forest structure	≥20
S3 stream	Maintain integrity of the RRZ Assist in maintaining wildlife habitat attributes within the RMA such as wildlife tree cover, nesting and perching habitat and diversity of vertical forest structure	≥20
S4 stream	 Maintain stream bank integrity Minimize introduction and transport of deleterious material to lower reaches of stream Provide shade cover, CWD and litter inputs 	≥10
S5 stream	 Maintain stream bank integrity Minimize introduction and transport of deleterious material to lower reaches of stream Provide litter inputs 	≥0
S6 stream	 Maintain stream bank integrity Minimize introduction and transport of deleterious material to lower reaches of stream Provide litter inputs 	≥0
Classified wetlands and lakes	Maintain integrity of the RRZ where applicable Assist in maintaining wildlife habitat attributes within the RMA such as wildlife tree cover, nesting and perching habitat and diversity of vertical forest structure	≥10

Levels of retention in Riparian management Areas will depend on factors such as:

- Physical features slope, aspect, soil,
- Stream morphology and stream bank characteristics,
- Downstream values,
- Length of stream with altered riparian area from previous harvesting, considering both sides of stream,
- Length of stream in a block and size of harvest area,
- Existing forest cover, wildlife trees and understory vegetation in riparian area,
- Wind firmness of retained trees, existing and potential coarse woody debris and
- Use of streamside area by wildlife.

CONSERVING AND PROTECTING CULTURAL HERITAGE RESOURCES



The following strategy is proposed to conserve and protect cultural heritage resources that are the focus of a traditional use by an aboriginal people and of continuing importance to them. This strategy applies to cultural heritage resources that are not protected under the *Heritage Conservation Act*. The woodlot licence holder is committed to carrying out forest practices at a time and in a manner that is unlikely to damage or harmfully alter cultural heritage resources.

The licensee supports ongoing information sharing and to do so will, in addition to the information sharing process required for the creation and approval of this plan, continue to provide information to the Wei Wai Kum, We Wai Kai, and K'omoks First Nations of any planned road and block development. This information will be shared at the early operational planning stage; when initial road and block locations have been determined.

The Wei Wai Kum, We Wai Kai, and K'omoks First Nations will be consulted with through operational planning information sharing to ensure that the Woodlot Licensee knows of CHRs in areas planned for development. If a new CHR is made known to the licensee the Ministry of Forests will be informed and a strategy to manage the CHR appropriately will be developed with the First Nation. Planned operations will not commence until this strategy is implemented.

The only CHR known to be of importance to First Nations at the time of this Woodlot Licence Plan submission is Large Cultural Cedar, (formerly referred to as monumental cedar) as described by the Nanwakolas Operational Protocol for Large Cultural Cedar.

Cultural Heritage Value	Strategy
Large Cultural Cedar:	The Woodlot Licensee will notify the Wei Wai Kum, We Wai Kai, and K'omoks First Nations of the presence of large Western Redcedar or yellow cedar, over 100cm DBH, in areas planned for development so that it can be managed as per the Nanwakolas Operational Protocol for Large Cultural Cedar.
Procedure if Cultural Heritage Resources are Identified	If cultural heritage resources are identified through fieldwork applicable First Nations will be notified. Assessment of and mitigation strategies for the cultural heritage resources identified will be developed through consultation with local First Nations and, where necessary, a professional archaeologist.

WILDLIFE TREE RETENTION STRATEGY

The proportion of the woodlot licence area occupied for wildlife tree retention purposes is 8%, or 61.2 ha as defined in the Performance Requirements section of this WLP.

The proportion of the woodlot licence area occupied by wildlife trees will be achieved through:

Patch retention (intact areas of forest)

Areas where harvesting will be avoided

Trees that pose a safety hazard or are damaged by insects or disease and pose a forest health risk to adjacent trees or forests may not be retained either as an individual wildlife tree, in a patch or in an area where harvesting will be avoided or modified.

DISPERSED RETENTION

Not applicable (dispersed retention of individual wildlife trees will not be used)

PATCH RETENTION

Applicable (patch retention of wildlife trees will be used)

(a) Forest Cover Attributes:

Wildlife Tree Retention Areas (WTRA) will be productive, well-stocked and representative of the forest cover attributes present across the productive areas of the woodlot. Coniferous species will include Douglas-fir, Western hemlock Western redcedar and possibly small components of Western white pine and lodgepole pine. Where possible WTRAs will include ecologically important sites such as riparian areas, old growth patches, veteran trees, ecosystem complexes and trees exhibiting characteristics that are supportive of biodiversity such as:

• Internal decay (heart rot or natural/excavated cavities present),

- Crevices present (loose bark or cracks suitable for bats),
- Large brooms,
- Active or recent wildlife use,
- Current insect infestations and
- Tree structure suitable for wildlife use (e.g. large nest, hunting perch, bear den, etc.)
- (b) Conditions Under Which Trees May Be Removed from Wildlife Tree Retention Areas:

Wildlife trees patches and/or individual wildlife trees in WTR areas may be removed if they are:

- A safety hazard;
- Infested with insects or pathogens which threaten the health of adjacent trees; and/or
- Wind thrown or damaged to the extent that the identified wildlife objectives cannot be met.
- If they become an obstacle or impediment to access or operations.
- (c) Replacement of Trees Removed from Wildlife Tree Retention Patches: The woodlot owner will ensure that the proportion of the woodlot licence area occupied for wildlife tree retention that is defined in the Performance Requirements section of this WLP will be maintained over time. Replacement of WTR areas will be designated prior to harvest of the original patches and will be recorded in the Pre-Harvest Prescription and other supporting documents. The woodlot owner will replace the portion of the WTR area from which the timber is being harvested with one or more WTR areas that provide an equivalent area, number of trees or habitat.

MEASURES TO PREVENT THE INTRODUCTION OR SPREAD OF INVASIVE PLANTS

The woodlot licence holder commits to carrying out the following measures to prevent the introduction or spreadof invasive plants listed in the Invasive Plant Regulation that is likely the result of the woodlot licence holder's forest practices:

- To the extent possible, not park or stage equipment or vehicles, or sort logs on large concentrations or infestations of invasive plants;
- To the extent practicable, begin work in un-infested areas before moving to infested areas:
- Inspect and remove invasive plant parts or propagules from clothing and vehicle/equipment undercarriages if working in an area known to contain prescribed invasive plants; and/or
- As soon as practicable or within one year following the completion of operations, all newly constructed roads, landings, pits, and quarries that are greater than 0.25 hectare and have exposed mineral soil that will support vegetation will be seeded at an industry acceptable rate using Canada Common #1 Forage Mixture as defined by the *Seed Act*.

The following are invasive species of special concern and will be reported by the licensee to the Ministry via the provincial "Report Invasives" App or using the online form:

- Japanese knotweed (Fallopia japonica)
- Giant knotweed (Fallopia sachalenensis)
- Bohemian knotweed (Fallopia x bohemica)
- Himalayan knotweed (*Polygonum polystachyum*).

MEASURES REGARDING NATURAL RANGE BARRIERS

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

STOCKING INFORMATION FOR SPECIFIED AREAS

\boxtimes	The stocking standards for the purposes of WLPPR sections 12 and 34(3) are
fou	d in Appendix 1A.

PRACTICE REQUIREMENTS

Soil Disturbance Limits

Default: WLPPR section 24(1)(b)

8% of net area to be reforested.

Permanent Access Structures

Alternative: WLPPR section 25:

The maximum area occupied by permanent access structures is:

- For Cutblocks ≥ 5 ha: 7% of the total cutblock area.
- For Cutblocks < 5 ha: 10% of the total cutblock area.
- For the WL Area: 7% of the total Woodlot Licence area.

Unless additional permanent access structures are necessary to provide access beyond the cutblock, in which case the limit will be exceeded as little as practicable and remain below 7% for the Woodlot Licence area.

Stocking Standards

Alternative #2: WLPPR section 35(1)(a)

The stocking standards, regeneration dates and free growing dates are indicated in Appendix 2B.

Width of Stream Riparian Areas

Default: WLPPR section 36(4)(b)

The minimum widths of the RRZ, RMZ and RMA are as described in

WLPPR section 36(4)(b).

Width of Wetland Riparian Areas

Default: WLPPR section 37(3)(b)

The minimum widths of the RRZ, RMZ and RMA are as described in

WLPPR section 37(3)(b).

Width of Lake Riparian Areas

Default: WLPPR section 38(2)(b)

The minimum widths of the RRZ, RMZ and RMA are as described in

WLPPR section 38(2)(b).

Restrictions in a Riparian Reserve Zone

Default: WLPPR section 39(1)

Cutting, modifying or removing trees in a RRZ is limited to the purposes

described in WLPPR section 39(1).

Restrictions in a Riparian Management Zone

Default: WLPPR section 40(1)(b)(c) or (d)

The construction of a roads in a riparian management zones will be limited

to the conditions described in WLPPR sections 40(1)(b), (c) and (d).

Wildlife Tree Retention

Default: 8% of the woodlot licence area (WLPPR section 52(1)(c).

Coarse Woody Debris

Coastal Default: WLPPR section 54(1)(b)

A minimum retention of 4 logs per ha \geq 5 m in length and \geq 30 cm

in diameter at one end.

Resource Features

Default: WLPPR section 56(1)(b)

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

feature.

II. APPENDICES

APPENDIX 1A: STOCKING STANDARDS FOR SPECIFIED AREAS

These layered stocking standards apply for the purposes of sections 12 and 34(3) of the Woodlot Licence Planning and Practices Regulation to areas where the establishment of a free growing stand is not required and harvesting is limited to commercial thinning, removal of individual trees, or a similar type of intermediate cutting, or the harvesting of special forest products.

G**	Bioge	oclimatic Ecosy	stem Classification	Preferred	Acceptable		TSS	MSSpa	MSSp
SU	Zone	Subzone	Variant Site Series	Species	Species	Layer	(sph)	(sph)	(sph)
1						1	400	200	200
	CWH	xm	1, 4, 5, 6, 7, 13, 14		Hw, Ba, Pw	2	500	300	250
				Fd, Cw	nw, ba, rw	3	700	400	300
						4	900	500	400
2						1	300	150	150
	CWH	xm	3, 12, 15	Fd, Cw	Pw, Hw	2	400	200	200
					1 w, 11W	3	600	300	300
						4	800	400	400
3						1	400	200	200
					Hw, Ba, Pw	2	500	300	250
	CWH	mm	1, 4, 5, 6, 7, 8, 9	Fd, Cw	nw, ba, rw	3	700	400	300
						4	900	500	400
						1	300	150	150
					Cw	2	400	200	200
	CWH	mm	2, 3	Fd	CW	3	600	300	300
						4	800	400	400

SU = Standards Unit = a harvested M	Minimum Distance Between Well-	MSSpa = Minimum Stocking Standard of well-	Layer 1 = Mature trees \geq 12.5 cm dbh
area with the same stocking standards sp	paced Trees = 2.0 meters except	spaced trees of preferred and acceptable species	Layer 2 = Pole trees \geq 7.5 to $<$ 12.5 cm dbh
TSS = Target Stocking Standard (sph) all	ll healthy trees in the mature	MSSp = Minimum Stocking Standard of well-	Layer 3 = Sapling Trees >1.3 m tall & < 7.5
= healthy well-spaced trees/ha lay	ayer are considered well-spaced	spaced trees of preferred species	dbh
		-	Layer 4 = Regeneration trees < 1.3 m tall.

APPENDIX 2B: STOCKING STANDARDS, REGENERATION DATES AND FREE GROWING DATES FOR FREE GROWING STANDS

ADMIN	ADMINISTRATION																							
Vancou	ıver Fore	est Region	1	Can	Campbell River Forest District Licensee: Robert and Machelle Bee											e Beed	de Woodlot Licence #W2003 July 1, 2023							
ID#	В	EC			Preferred	d Species						Acceptabl	e Species	3			Stocking (w/s)			Min Inter Tree Dist (m)	Regen Delay	FG Date	Tree Ht > Brush (min %)	Comments:
	Zone & variant	Site Series	1	Ht (min)	2	Ht (min)	3	Ht (min)	1	Ht (min)	2	Ht (min)	3	Ht (min)	4	Ht (min)	Target P&A (sph)	Min P&A (sph)	Min P (sph)	MITD (m)	Max (yrs)	Late (yrs)		
	CWHxm	01/04	Fd	3.0	Cw	1.5			Pw ⁵	2.5	Hw^8	2.0					900	500	400	2.0	3	20	150	Zonal site
	CWHxm	02	Fd	2.0					Pw ⁵	2.5	Pl	1.25					400	200	200	2.0	3	20	150	Avoid logging – xeric site, shallow soils
	CWHxm	03	Fd	2.0					Cw	1.0	Pw^5	2.5	Pl^6	1.25			800	400	400	2.0	3	20	150	Dry site
	CWHxm	05/07	Fd	4.0	Cw	2.0			Pw ⁵	2.5	Ba ⁹	1.0					900	500	400	2.0	3	20	150	Rich and moist site
	CWHxm	06	Fd	3.0	Cw	1.5	Hw	2.0	Pw ⁵	2.5							900	500	400	2.0	6	20	150	Wet site
	CWHxm	11 ¹	Cw	1.0					Pl	1.25							400	200	200	1.5	3	20	150	Avoid logging – wet and very poor
	CWHxm	12¹	Cw	1.0					Hw^4	1.5	Pw^5	2.5	Ss^7	1.5			800	400	400	1.5	3	20	150	Organic soils - avoid ground based equipment
	CWHxm	$13/14^2$	Fd ¹	4.0	Cw	2.0			Ss ⁷	3.5	Ba ⁹	1.0					900	500	400	1.5	3	20	150	Fluctuating water table
	CWHxm	15 ²	Cw	2.0					Ss ⁷	3.5							800	400	400	1.5	3	20	150	Fluctuating water table
	CWHxm	01/06	Dr ⁴	3.0	Mb	3.0											1200	1000	800	1.5	3	20	150	High density deciduous management
	CWHxm	05/07/13/ 14 ² /15 ²	Act	4.0	Dr ⁴	4.0	Mb	4.0									1200	1000	800	1.5	3	20	150	High density deciduous management
	CWHxm	01/04/06	Cw	1.5	Pw ⁵	2.5			Fd	3.0	Hw^8	2.0					900	500	400	2.0	3	20	150	Alternate species root rot treatment
	CWHxm	02	Pw ⁵	2.5					Fd	2.0	Pl ⁶	1.25					400	200	200	2.0	3	20	150	Avoid logging – xeric site, shallow soils
	CWHxm	03	Cw	1.0	Pw ⁵	2.5			Fd	2.0	Pl ⁶	1.25					800	400	400	2.0	3	20	150	Alternate species root rot treatment
	CWHxm	05/07	Cw	2.0	Pw ⁵	2.5			Fd	4.0	Ba ⁹	1.0					900	500	400	2.0	3	20	150	Alternate species root rot treatment
	CWHxm	12	Cw	1.0	Pw ⁵	2.5			Hw	1.5	Ss^7	1.5					800	400	400	1.5	3	20	150	Alternate species root rot treatment
	CWHxm	13/14 ²	Cw	2.0					Fd	4.0	Ss ⁷	3.5	Ba ⁹	1.0			900	500	400	1.5	3	20	150	Alternate species root rot treatment

See footnotes below

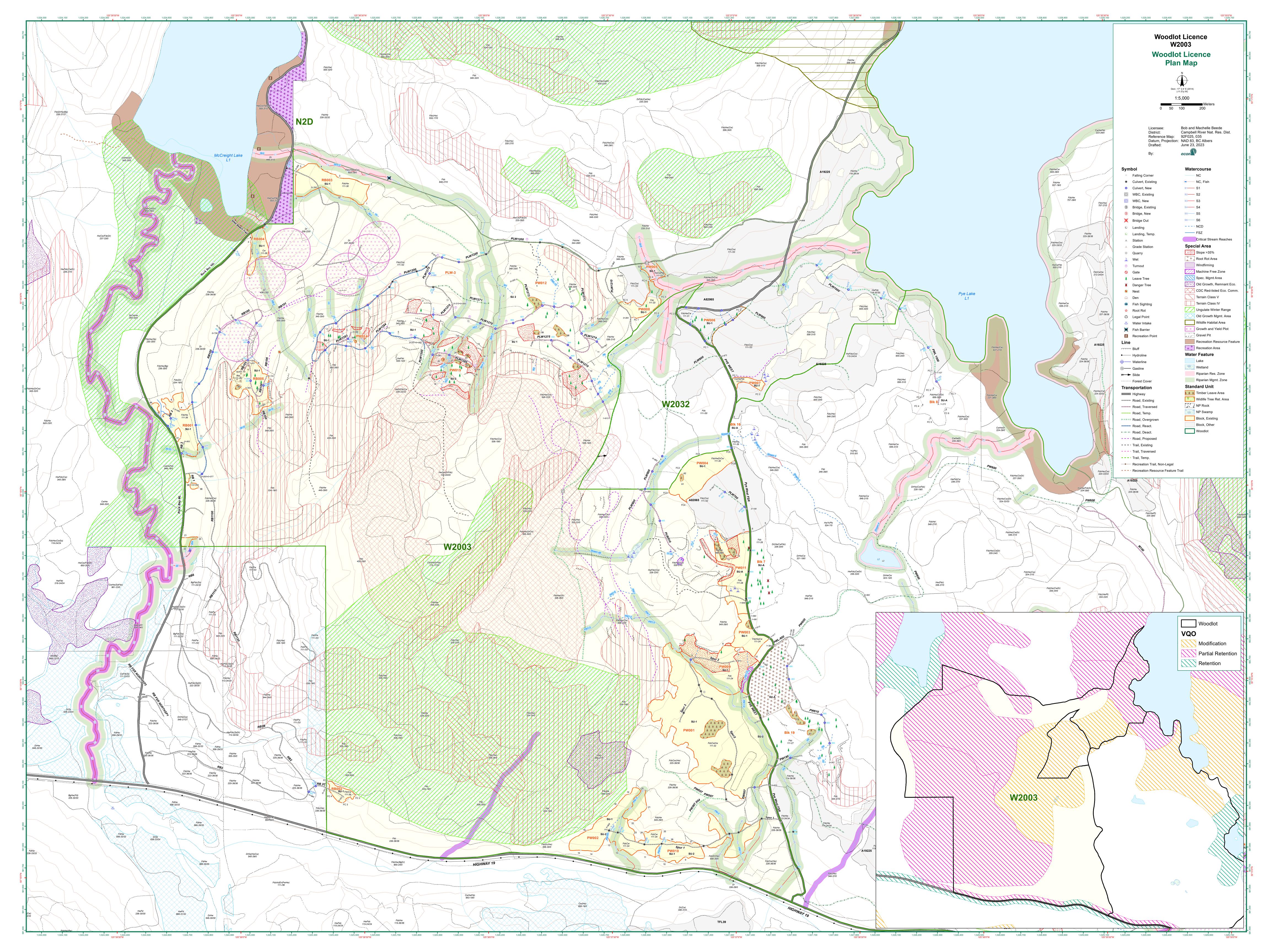
ADMIN	ADMINISTRATION																							
Vancou	ancouver Forest Region Campbell River Forest District Licensee: Robert and Machelle Beede												Wo	odlot	t Lice	nce#	W2003 March 22, 2023							
ID#	BEC				F	referred Sp	ecies					Acceptable Species					Ste	Stocking (w/s)		Min Inter Tree Dist (m)	Regen Delay	FG Date	Tree Ht > Brush (min %)	Comments:
	Zone & variant	Site Series	1	Ht (min)	2	Ht (min)	3	Ht (min)	4	Ht (min)	1	Ht (min)	2	Ht (min)	3	Ht (min)	Target P&A (sph)	Min P&A (sph)	Min P (sph)	MITD (m)	Max (yrs)	Late (yrs)		
	CWHmm1	01	Fd	3.00	Cw	1.50					Hw^{10}	2.00					900	500	400	2.0	6	20	150	
	CWHmm1	02	Fd	2.00	Pl	1.25					Cw	1.00					800	400	400	2.0	6	20	150	Avoid logging – xeric, nutrient poor site
	CWHmm1	03	Fd	2.00							Cw	1.00					800	400	400	2.0	3	20	150	
	CWHmm1	04	Fd	2.00							Pw ⁵	2.50	Cw	1.00			900	500	400	2.0	3	20	150	
	CWHmm1	05	Fd	3.00	Cw	1.50					Pw ⁵	2.50					900	500	400	2.0	3	20	150	
	CWHmm1	06	Cw	1.50	Hw	2.00					Fd ¹¹	3.00					900	500	400	2.0	6	20	150	
	CWHmm1	07	Cw	2.00	Fd	4.00											900	500	400	2.0	3	20	150	
	CWHmm1	08	Ba ¹²	1.00	Cw	2.00	S s ¹¹	4.00									900	500	400	2.0	3	20	150	
	CWHmm1	09	Cw ¹	2.00							Ba ^{1,12}	1.0					900	500	400	2.0	3	20	150	
	CWHmm1	12	Cw ¹	1.0							Hw¹	1.75	Ss ¹	2.0			800	400	400	2.0	3	20	150	Wet site

See footnotes below

Stocking Standards Foot Notes

- 1 Elevated microsites are preferred.
- These sites represent areas with strongly fluctuating water tables. They are often found as mosaics in combination with other sites. Elevated microsites are preferred.
- 4 Avoid gleyed soils and in frost pockets.
- Pw must be free of blister rust within 10 cm of the stem and be pruned as per ministry guidelines <u>or</u> 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. When used for root rot treatment no limit on percent composition is set.
- 6 Restricted to nutrient-very-poor sites.
- Risk of weevil damage, use resistant stock where possible. Ss will not exceed 20% of the free growing stand or 5% of the free growing stand on site series 13, 14, & 15 on a dispersed basis. Clumps not to exceed 0.1ha in size.
- 8 Hw is not acceptable on site series 04. The proportion of the free-growing stand comprised of Hw will not exceed 20%.
- 9 Limit to 20% of the free growing stand due to risk of balsam woolly adelgid.
- 10 Suitable on cool aspects
- 11 Suitable on nutrient-medium sites
- risk of balsam wooly adelgid within quarantine area see
 http://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/animals-and-crops/plant-health/insects-and-plant-diseases/nursery-and-ornamentals/balsam-woolly-adelgid

APPENDIX 3: THE WOODLOT LICENCE PLAN MAP



APPENDIX 4: REVIEW AND COMMENT

a) Advertising

See the advertising tear sheet from the Campbell River Mirror below.

b) Referrals

See the Summary of First Nations Consultation below.

c) Copy of Written Comments Received

See the Summary of First Nations Consultation below.

d) Revisions Made Because of Written Comments Received

None were made

e) Efforts Made to Meet with First Nations

See the Summary of First Nations Consultation below.



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Legal Notices

Legal Notices

Legal Notices

Proposed Woodlot Licence Plans for Woodlot Licences #W2002 and W2003

Notice is hereby given that Robert and Machelle Beede, licensees for Woodlot Licences W2002 and W2003, will make proposed Woodlot Licence Plans (WLP) for each woodlot available for public viewing and comment. These WLPs have been developed under the Forest and Range Practices Act and Woodlot Licence Planning and Practices Regulation.

Woodlot Licences W2002 and W2003 are adjacent to each other and located approximately 35 km Northwest of Campbell River along Highway 19.

A WLP sets the legal requirements for how activities in the woodlot will be carried out. The WLP shows the areas where timber harvesting will be avoided, modified or allowed and also includes information on results and strategies designed for the maintenance and protection of non-timber resources in the tenure area. A WLP plan also includes designated Wildlife Tree Retention Areas where harvesting will not occur. All harvesting activities will be subject to the WLP and Annual Allowable Cut and associated Cut Control Regulation. The term of the WLP is ten

The plans are available for review prior to the determinations of the District Manager of the Campbell River Natural Resources District and can be made available to interested parties. The plans will be made available during regular business hours from June 15, 2022 to July 15, 2022. To request a copy of either WLP please call Brian Smart at Econ Consulting 250-337-5588 or email to Brian@econ.ca. Additional information related to the woodlot may be provided upon request.

Comments upon the plans must be received in writing by July 22, 2022, 2022 at the following address: Econ Consulting, 2-8268 Island Hwy, Black Creek, BC, V9J 1H6, attn: Brian Smart, RPF, or by email to brian@econ.ca. Please note that comments that do not directly bear upon the plans themselves will be forwarded to the District Manager, but may be outside of the jurisdiction of the licensee to address.



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Licensee Summary of First Nations Information Sharing Campbell River Natural Resource District

Check box and specify a	pplica	ıble names/numbers	Applicant:	Robert and Machelle Beede
Cutting Permit #:	\boxtimes	draft WLP2 for each	Tenure #:	W2002 and W2003
Road Permit #:			Block(s):	
WLP:	\boxtimes	WLP 2	Road(s):	
WLP Extension:			Section(s):	
Licence Replacement:				
Date:	June	1, 2022	Completed by:	Brian Smart, R.P.F.

Y/N

Archaeology and Aboriginal Interests Information [Attach comments if necessary]

	•	
1. Is the application area	(s) the same as that which was referred to the First Nation(s)?	Υ
2. Is the area under application in or adjacent to an area of "moderate" or "high" archaeological potential as		
indicated on the relevant	t AOA?	
3. Was the area	a. A professional archaeologist (office or field)? (summarize/comment if so)	N
reviewed by:	b. A First Nation field assessor(s)? (summarize if so)	N
4. Is the area in the vicinity (~1km) of:	a. A specific known aboriginal interest (cultural, traditional, Indian Reserve, Active	N
	Treaty interest (if known), etc.) or one communicated by a FN in consultation?	
	b. A "point", "line" or "polygon" feature identified on the "Aboriginal Interests" shape	N
	files provided by the Resource District? (discuss with District Staff if necessary)	
	c. An existing archaeological site (data available through Archaeology Branch or	N
	archaeology professionals)?	
Comments related to po	ints 1-4	

Communication/Event Log Summary

FN (Please sort)	Date	Event/Result
We Wai Kai FN	June 1, 2022	Both WLPs, maps, .kmz, letter sent to Nanwakolas
Wei Wai Kum FN	June 1	Both WLPs, maps, .kmz, letter sent to Nanwakolas
K'omoks FN	June 1	Both WLPs, maps, .kmz, letter sent to Nanwakolas
Nanwakolas	June 2, 2022	Email received confirming receipt of referral package, due date set for Aug 30, 2022
K'omoks FN	July 14, 2022	Response from K'omoks for W2002 and W2003 no comment.
We Wai Kai FN	July 19, 2022	Response from Chief Ronnie Chickite - mistakenly responding to two new woodlot licenses not WLPs.
We Wai Kai FN	July 19, 2022	Email sent to Nanwakolas requesting clarification on response above.
	Sept 13, 2022	Email sent again to Casey Inrig of Nanwakolas requesting clarification on WWKai response
Wei Wai Kum	Sept 13, 2022	Email sent to Nanwakolas Erica Haunch of Nanwakolas asking for WWKum Response.
Wei Wai Kum	Sept 13, 2022	Email from Art Wilson of Nanwakolas informing me Erica Haunch no longer an employee. Ashley Drake now handling WWKum files
We Wai Kai FN	Sept 13,2022	Response from Chief Ronnie Chickite – reworded but not completely correct – however there is no comment. Emails attached.
Wei Wai Kum	Sept 19, 2022	Called Ashley Drake – she said she is still waiting on Chief's response. She has notified him of overdue referrals.
Wei Wai Kum	Sept 19, 2022	Letter from Chief Roberts (Dated June 23) forwarded by Ashley Drake requesting a meeting.
Wei Wai Kum	Dec 6, 2022	Email to Jen Cooley to ask about meeting regarding W2002 W2003 WLPs. Who to attend? What are concerns?
Wei Wai Kum	Dec 12, 2022	Call to Chief Roberts - message left -to ask him about meeting Meet with who? can we discuss on the phone? – explained that it is just a WLP replacement with no new issues.
Wei Wai Kum	Dec 15, 2022	Call from Jen Cooley informing me that Chief Roberts got my message and that I answered his questions so there is no need for a meeting or phone call. A no comment letter will come from WW Kum FN via Ashley Drake at Nanwakolas soon.



2-8268 Island Hwy * Black Creek, B.C. * V9J 1H6 * P: (250) 337-5588 * F: (250) 337-2063 * e-mail: mail@econ.ca * www.econ.ca

To: Nanwakolas Council 1441 16th Ave Campbell River, B.C. V9W 2E4 June 1, 2022

Via email to: referrals@nanwakolas.com

RE: New Woodlot Licence Plans for Woodlots W2002 and W2003

ATTN: Wei Wai Kum, We Wai Kai and K'omoks First Nations

Dear Sir/Madam,

I would like to inform the Wei Wai Kum, We Wai Kai and K'omoks First Nations that Robert and Machelle Beede, Licensees of Woodlot W2002 and W2003, intend to submit new Woodlot Licence Plans (WLP) for both woodlot tenures. W2002 and W2003 are adjacent to one another and are located approximately 35 km northwest of Campbell River, along Highway 19. Please note that the WLP for W2003 no longer applies to the private land section of the woodlot in Elk Bay as it is being proposed for removal from the woodlot.

Of particular interest to the licensees is obtaining a better understanding of what cultural heritage values may be within the tenure areas that are of interest and of management concern to the Wei Wai Kum, We Wai Kai and K'omoks First Nations in addition to Large Cultural Cedar.

We would like to know if you have any comments regarding this application including questions or concerns that you would like to discuss. I am available to meet in person, by web meeting (Zoom), or by telephone to discuss any aspects of the private land removal application. I can be contacted at (250) 337-5588 or by e-mail at: brian@econ.ca. Alternatively a written response may be submitted via email or to the Econ Consulting mailing address above. Any comments received will be submitted with the new WLPs to the District Manager of the Campbell River Natural Resources District, Ministry of Forests, Lands, Natural Resource Development and Rural Development. Depending on responses received the Ministry may contact respondents to conduct follow-up consultation.

With best regards,



Brian Smart, RPF 2813 Econ Consulting

Attachments:

.kmz files of W2002 and W20033 tenures for locating tenures on Google Earth Draft WLPs for W2002 and W2003





3330 Comox Road, Courtenay BC V9N 3P8 Tel: (250) 339-4545 Fax: (250) 339-7053

July 13, 2022

Brian Smart, RPF ECON Consulting 8268 Island Hwy, Black Creek BC V9J1H6 brian@econ.ca

Re: New Woodlot License Plans for W2002 & W2003 - Northwest of Campbell River

Agency File No: N/A

Nanwakolas File: IF 22-090F

Mr. Smart,

The K'ómoks First Nation is in receipt of the above-mentioned Information Sharing Request regarding New Woodlot License Plans for Woodlot W2002 & W2003 located 35 km northwest of Campbell River, along Highway 19. The application areas are located within the K'ómoks statement of intent area; it is the interest of the K'ómoks Nation to respectfully maintain our rights and access to the lands and resources throughout our territory.

The K'ómoks First Nation does not have any comments to provide at this time. Please note that this "No Comment" letter is specifically intended for this application and is without prejudice to all future consultation with our Nation regarding not only the renewal of this application but any other application or decision within the K'ómoks traditional territory.

However, since we were never consulted on the original issuance of this woodlot, we may choose in the future to address the issues of Aboriginal rights and/or title infringement and compensation through the treaty process, the courts or other dispute resolution processes. We also reserve the right to raise objections if any cultural use, archaeological sites or environmental impacts are identified when the above project is being carried out or if we discover impacts on our rights or interest that we had not foreseen.

Should you require any further information, please do not hesitate to contact our office.

Sincerely,

Nicole Rempel, Chief Councillor



We Wai Kai Nation

690 Headstart Cres Campbell River, BC Phone: (250) 914 - 1890

September 13th, 2022

Brian Smart ECON Consulting brian@econ.ca

Re: W2002 and W2003 new WLP referral

Agency File No: File: N/A Nanwakolas File: IF 22-091F

The above application is located within the traditional territory of the We Wai Kai Nation. We have very strong evidence of aboriginal rights and title and historic use and occupation. As holders of Aboriginal Title to these territories, the We Wai Kai First Nation maintains the right to make decisions concerning the use and protection of all lands, waters and resources within our territories.

The We Wai Kai Nation has reviewed the above-mentioned application regarding an information sharing request from Robert and Machelle Beede regarding new Woodlots near Pye Lake. After further discussion, We currently have no comments to provide at this time. Please note that this "no comment" letter is specifically intended for this application and is without prejudice to any and all future consultation with our Nation regarding not only this application but any other application or decision within the We Wai Kai traditional territory.

In the event this application is altered in any way the We Wai Kai Nation will require readdress on all amendments of the existing plans. The We Wai Kai Nation also reserves the right to raise objections if any cultural use or archaeological sites are identified when this project is being carried out. The We Wai Kai Nation takes both the Declaration on the Rights of Indigenous Peoples (UNDRIP) and the Provinces "Consultation process" very serious and trust that your government will continue negotiating and acting in "Good Faith" and this application will not proceed until are requests are met.

If you have any questions or concerns or would like to set up a meeting, please contact Casey Inrig at 250-286-7200 or email at caseyinrig@nanwakolas.com

Regards,

Chief Councillor Ronnie Chickite

We Wai Kai First Nation

Telephone: (250) 914-1890 Fax: (250) 914-1891



CAMPBELL RIVER INDIAN BAND

June 23, 2022

Brian Smart, RPF ECON Consulting ph: 250-337-5588

Re: New Woodlot License Plans for W2002 & W2003 - Northwest of Campbell River

Agency File No: File: N/A Nanwakolas File: IF 22-092F

The above application is located within the traditional territory of the Wei Wai Kum Nation. We have very strong evidence of aboriginal rights and title and historic use and occupation. We assume the provincial government accepts our strong strength of claim and acknowledges that this area is part of our aboriginal title lands. If the Province doubts or disputes this in any way, we ask you to respond in writing explaining why. As holders of Aboriginal Title to these territories, the Wei Wai Kum First Nation maintains the right to make decisions concerning the use and protection of all lands, waters and resources within our territories.

Wei Wai Kum has reviewed the above-mentioned application regarding an information sharing request ECON Consulting c/o Brian Smart (on behalf of Robert and Machelle Beede) regarding a New Woodlot License Plans (WLP's) for W2002 & W2003 located 35 km northwest of Campbell River, along Highway 19. We would like to schedule a meeting to further discuss this application. As noted above Wei Wai Kum have very strong evidence of aboriginal rights and title with historic use and occupation in our traditional territory. There is well documented traditional use activity and harvesting which occur within the proposed project area and therefore warrants further discussion on the proposed interest.

The Wei Wai Kum Nation may choose in the future to address the issues of Aboriginal rights and title infringement and the requirements for accommodation, compensation or consent through the treaty process, the courts or other dispute resolution processes. We also reserve the right to raise objections if any cultural use, archaeological sites or environmental impacts occur beyond what was addressed in the application, or when the above development is being carried out and we discover impacts on our rights, title or interests that we had not foreseen. If any of the above are identified, we will require all work to stop until trained Wei Wai Kum members are on site.

Furthermore, the Nation would like to reaffirm that Archaeological sites in British Columbia are protected under our law and under the Heritage Conservation Act (HCA). Disturbances to or alterations of archaeological, cultural or heritage sites cannot proceed unless they are jointly approved by the Archaeology Branch under appropriate Heritage Conservation Act permits held by professional archaeologists and by our Nation in accordance with appropriate assessment guidelines, work plans and avoidance, mitigation and monitoring measures in place.



CAMPBELL RIVER INDIAN BAND

If you have any questions or concerns or would like to set up a meeting, please contact Jen Cooley at (250)286-6949 or by email referrals@weiwaikum.ca

Regards,

Chief Councillor Chris Roberts Wei Wai Kum First Nation

III. SUPPLEMENTAL INFORMATION

Stocking Standards

Stocking Standards have been developed from the *Reference Guide for FDP Stocking Standards*. Where site series have similar stocking standards they have been combined.

Site series with the comment of 'avoid logging' and sites with strongly fluctuating water tables have been included, however, management on these sites will be limited and will generally be included within a mosaic of better sites.

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 deciduous trees will be tolerated on all conifer plantations, to promote nutrient cycling and for general biodiversity objectives. Allow up to 50 trees/ha as deciduous ghost trees during surveys on all sites so that these deciduous ghost trees have no impact on the free growing status of the crop trees. Where deciduous trees are within 10m of each other they are not to be regarded as ghost trees due to increased competitive density effects (The deciduous stems in question would impact the free growing status of sample trees).

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).

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.

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 as to whether a 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 enable the production of healthy stands that protect adjacent resources and values. For example, on an infected zonal site (01) adjacent to an S4 creek or recreational trail stumping is not appropriate due to sedimentation concerns or to visual appearance. In these cases the establishment of Douglas-fir (preferred) may prove difficult and unsuited in the long-term due to re-infection.

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 approximately every 10 years to maintain good crown forms and eliminate low quality stems.

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 option on several site series within the CWHxm. The attached Alternative Stocking Standards will be used and 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 memorandum dated August 22nd, 2000 and the supporting note 'Common Principles for the Management of Red Alder within the Coast Forest Region' dated August 2004. The management for broadleaf species is proposed on a limited scale and is consistent with the management assumptions adopted in the last Annual Allowable Cut (AAC) calculation.

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

However, the maximum post-spacing density is set higher than the recommended 600spha above the target density due to the fact that the woodlot licence is located in a snow belt with frequent heavy snow and freezing rain loads. If the density of a juvenile stand would be reduced too drastically, then there would be a high risk of snow press and stem breakage. This will allow for two-stage spacing entries in order to manage the described risks and it also provides the opportunity to capture the small-diameter products.

Higher stocking is noted for the deciduous stands to ensure self-pruning and may include a conifer component. The minimum height criterion is based on the tallest conifer standard of the particular site series since the listed hardwoods are at least as rapidly growing as their coniferous counterparts. 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 and the retention of a fully stocked, semi-mature conifer pole stand is operationally feasible. 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 as per the default standards with the exception of deciduous stands with initial stocking densities greater than 900 stems per hectare (sph). For these stands the target and minimum stocking standards for tree layer 1 have been reduced from the default coniferous standards to reflect the difference in deciduous stand development and management regimes. Under a deciduous management regime initial densities will be higher than those for a coniferous stand and target thinning densities will be relatively lower. Higher initial densities are prescribed to promote self-pruning and stem development prior to thinning. 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).