



TENURE IDENTIFICATION

ORIGINAL

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
A93300	-	COAMP	BEAMP	092H017	Merritt/Lillooet FDU	Copper Creek	49 10 49 / 120 41 09

AREA UNDER THE PLAN

GROSS AREA (TAUP)	PAS	NP	WTRA / WTP	RESERVES	OTHER	NAR
76.1	1.8	0.0	11.9	0.0	0.0	62.4

ADDITIONAL COMMENTS

DEFINITIONS (ADD DEFINITIONS AS REQUIRED)
This Site Plan is prepared for this block and associated roads in accordance with FRPA Sections 10(1), (2) and (3). This Site Plan is consistent with the BCTS Merritt/Lillooet TSA Forest Stewardship Plan dated June 12, 2018 that has been extended commencing June 11, 2023 and expiring June 11, 2028.
OTHER RESOURCES
<p>Dispersed Retention Variance Rationale:</p> <p>A rationale is required whenever a development varies from the “Plan for CP Development of Priority Fire Salvage - September 9, 2021”. This block experienced moderate to high intensity burns from the 2021 Garrison Lake wildfire and intends to vary from the dispersed retention recommendation in this document.</p> <p>The dispersed retention strategy (outlined in the leave tree specification section of this site plan) meets approximately the same stem count as the recommended dispersed retention from “Plan for CP Development of Priority Fire Salvage - September 9, 2021”. However, it eliminates the single tree retention of spruce and dead stems on site. Given the block's high windthrow risk, spruce's shallow rooting, and the dead trees' lack of wind firmness, their retention on site won't adequately achieve the desired objective of increased biodiversity. This retention strategy better serves the sites as it reduces the amount of windfall which enhances worker safety, increases structural diversity of the subsequent stand, increases habitat value, and enhances visual screening by retaining trees with live crowns. To create future nesting, perching, and feeding site for birds, and preserve a profile of old attributes in the newly established stand, stubbing was increased to 20 stems per hectare. The increase in stubs intends to make up for the reduction in dead tree retention while serving the same function.</p> <p>The proposed dispersed retention strategy intends to exceed the objectives from “Plan for CP Development of Priority Fire Salvage - September 9, 2021” by applying more site-specific management. This site-specific approach will better balance environmental, economic, and social values in this block.</p>

Prioritized Big-Treed Old Growth Overlap Rationale:

TSL A93300- Block COAMP sustained a moderate to high severity burn in the 2021 Garrison Lake Wildfire and overlaps considerably with a OGDA polygon #138850. As per Appendix 8 of Field Verification of Priority Old Forest Deferral Areas: Technical Guidance Version 3.1, (July 20, 2022), “Areas of moderate or high burn severity do not meet priority deferral criteria”. BCTS provided burn severity mapping following the development of the block. This mapping identified 21 "overlap" areas in which there was "Unburnt" or "Low" burn severity planned for harvest within OGDA polygon #138850. Additional sampling of the 21 overlap area had the following results:

-Overlap 1 was unburnt but was a plantation for an adjacent block. It was only included in COAMP as right-of-way for FSR ME9397.01. It is not eligible for deferral as it contains no mature timber.

-Overlaps 2-21 were determined to be "Moderate" burn severity based on a combination of species composition, percent burned and percent mortality.

Rationale/Recommendations:

The planned harvest area of this block does not meet the minimum deferral requirements from Field Verification of Priority Old Forest Deferral Areas : Technical Guidance Version 3.1, (July 20, 2022). Harvesting activities can proceed.

SOIL DISTURBANCE

SU	Max. Allowable Soil Disturbance (%)	Max. Amount TAS May Exceed MASD Prior To Rehab (%)	Max. Allowable Soil Disturbance For Roadside Work Areas (%)	Maximum Permanent Access Structures (%)
1	5.0	5.0	25.0	7.0
SU	CRITICAL SITE CONDITIONS THAT AFFECT THE TIMING OF OPERATIONS, AND HOW THEY AFFECT THE TIMING			
1	This block experienced a moderate to high intensity burn in the 2021 Garrison Lake wildfire. Though not meeting the legal definition of sensitive soils, the soils are being managed to a maximum allowable soil disturbance limit of 5%. Recommend harvest on dry or frozen soils or on soils covered with sufficient snowpack to meet the stated soil disturbance objectives . Monitor soil conditions if persistent wet weather is encountered during harvesting to avoid excessive soil disturbance. Recommend using a random skidding pattern and avoid skidding across depression areas when wet.			

RESULTS AND STRATEGIES

FSP:	FDU:
Merritt/Lillooet Timber Supply Area FSP	Merritt/Lillooet FDU
Biodiversity Objectives	
Result or Strategy Description	5.1. Old Growth Order
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This block is consistent with section 5.1 of the FSP as it does not overlap any OGMAS.

Result or Strategy Description	5.5.1 Maximum Cutblock Size
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The NAR of the cutblock is 62.44ha which exceeds the 40-hectare limit allowed in the FPPR Section 64 (1) (a). As per FPPR Section 64 (2)(a), FPPR Section (1) does not apply where timber harvesting is being carried out on the cut block to recover timber damaged by fire. This block is a fire salvage block recovering timber from the 2021 Garrison Lake Fire and experienced moderate to high intensity burns throughout the block. The size of the cutblock will be mitigated by having the block boundaries duplicate an area with natural disturbance and with WTRAs within the block.
Result or Strategy Description	5.5.2 Harvesting Adjacent to Another Cutblock
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	As per FPPR Section 65(4), harvesting adjacent and green-up heights does not apply if block if FPPR Section 64 (2) applies to the new cutblock. This block is a fire salvage block recovering timber from the 2021 Garrison Lake Fire and experienced moderate to high intensity burns throughout the block.
Result or Strategy Description	5.6 Stand Level Biodiversity
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	As per section 5.6 of the FSP, the minimum WTRA for the block is 3.5% with a target of 7.0% when averaged across the TSL. This block has 15.6% WTRA and will meet the minimum target of 3.5% consistent with the targets for this Landscape Unit. The WTRA will meet the required target of 7.0% when averaged across the TSL with a value of 15.6 %. The WTRAs are no more than 500m distance from any other WTRAs or standing timber.
Cultural Heritage Objectives	
Result or Strategy Description	5.8 Cultural Heritage Resources
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	BCTS has referred this development to all potentially affected First Nations , as was determined through a search of the Consultative Area Database (CAD). All referral communication and management decisions have been documented in a BCTS Due Diligence Report signed off for approval by the Timber Sale Manager (TSM). This Site Plan is consistent with the management decisions and measures approved by the TSM . If a previously unidentified affected cultural heritage resource is encountered during harvesting , road construction, or mechanical site preparation that is authorized or carried out by the TSM the TSM will require that the operations cease to the extent necessary to protect the affected cultural heritage resource until a cultural heritage resource evaluation can be carried out. This development is consistent with section 5.8 of the FSP
Measures	
Result or Strategy Description	6.1 Natural Range Barriers – Measures
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The block does not fall inside any active range tenures. No natural range barriers were identified for the harvest area and harvesting this block will not render any natural range barriers ineffective . This site plan is consistent with section 6.1 of the FSP.
Result or Strategy Description	7.1 Invasive Plants
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This block is not located within an Invasive plant Zone. To prevent the spread of invasive plants , all disturbed soil from road construction, reconstruction, or deactivation as well as construction of or use of borrow pit will be seeded with a seed or forage mixture that meets or exceeds Canada Common Number 1 Forage Mixtures as defined by the Canada Seeds act and Regulation or Native Shrubs. 90% of the seeding will be complete by July of the following calendar year and the remainder is required to be completed by December 31st of the same calendar year. This block is consistent with Section 7.1 of the FSP.
Riparian Management Objectives	
Result or Strategy Description	5.4.1 Stream Riparian Classes
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no classified streams within the harvest area for the Site.

Result or Strategy Description	5.4.2 Wetland Riparian Classes
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no classified wetlands within the harvest area for the Site.
Result or Strategy Description	5.4.3 Lake Riparian Classes
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no classified lakes within the harvest area for the Site.
Result or Strategy Description	5.4.4 Restrictions in a Riparian Management Area
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no riparian management areas within the harvest area for the Site.
Result or Strategy Description	5.4.5 Restrictions in a Riparian Reserve Zone
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no riparian reserve zones within the harvest area for the Site.
Result or Strategy Description	5.4.6 Retention in a Riparian Management Zone
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no riparian management zones within the harvest area for the Site.
Result or Strategy Description	5.4.7 Restricted Operation of Machinery
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no riparian management areas within the harvest area for the Site.
Result or Strategy Description	5.4.8 Operational Exceptions to Restricted Operation of Machinery
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no riparian management areas within the harvest area for the Site.
Result or Strategy Description	5.4.9 Temperature Sensitive Streams
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no temperature sensitive streams associated with this block.
Soil Management and Conservation Objective	
Result or Strategy Description	5.2 Soil Management and Conservation
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>This block experienced moderate to high severity burns during the 2021 Garrison Lake wildfire. The soils are being managed as sensitive due to the lack of LFH and their increased hydrophobic properties. The Harvest Plan contains a requirement to prevent soil damage and degradation.</p> <p>The Site has been designed so the area occupied by proposed temporary access structures and roadside work areas will not exceed the limits outlined in the Soil Disturbance table above.</p> <p>The Site has been designed so the area occupied by proposed permanent access structures will not exceed 7% of the cutblock.</p>

Visual Objectives	
Result or Strategy Description	5.9.1 Scenic Areas (Act ss. 180 and 181) with established VQO's
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>The Site is within VLI polygon LF1B, a Scenic Area with established VQO of Partial Retention. RVQO of partial retention (PR) is defined as:</p> <p>1) easy to see. 2) small to medium in scale. 3) natural and not rectangular or geometric in shape.</p> <p>A VIA was conducted by RDI Inc. January, 2023 and concluded that L1B will not meet meet the "Partial Retention" VQO, However, FSP #109 Ammendment #4 Section 5.9.1.2 states that landforms where fire salvage harvest is proposed in response to the 2021 Garrison Lakes fire (FSP 5.9.1 Table 9), have modified VQOs where a QP deems that it is not practicable to harvest timber with the design scale and acuity of the established VQOs. The modified VQO for L1B is "maximum modification", which is defined as:</p> <p>1) Very easy to see, 2) Very Large in scale</p> <p>As per the VIA, this block meets the definition of "Modification" and is well within the modified visual quality objective in scale and acuity as per FSP #109 Ammendment #4 Section 5.9.1.The block is not in compliance with the current FSP, but will be compliant with the visual amendment once approved.</p>
Result or Strategy Description	5.9.2 Scenic Areas (Act ss. 180) without established VQO's
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This block is not in a Scenic Area without established VQOs as per FSP 5.9.2
Result or Strategy Description	5.9.3 Recreation Sites, Trails and Interpretive Forest Sites
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This block is not in the vicinity of any Recreation sites, trails, and interpretive sites. This block is consistent with section 5.9.3 of the FSP.
Water Objectives	
Result or Strategy Description	5.3.1 Community Watersheds
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	Block is not located within a designated community watershed. This site plan is consistent with section 5.3 of the FSP.
Wildlife Objectives	
Result or Strategy Description	5.7.5 Coastal Tailed Frog
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This site has two associated streams that contain Coastal Tailed Frog : S4-1 and S6-2. Both streams were defaulted to CTF bearing and were managed by the boundary being located >50m away. This retains 100% of the core and managment areas in compliance with FSP 5.7.5.
Result or Strategy Description	5.7.1 Mule Deer, Elk and Bighorn Sheep Winter Range
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The Site is not within a Mule Deer, Elk, or Bighorn Sheep Winter Range polygon. The result/strategy does not apply to the Site.
Result or Strategy Description	5.7.2 Mountain Goat Winter Range
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The Site is not within Mountain Goat Winter Range.
Result or Strategy Description	5.7.3 Moose Winter Range
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The Site is not within Critical Moose Winter Range.

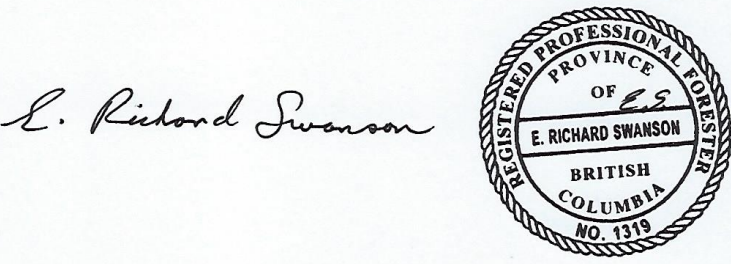
Result or Strategy Description	5.7.4 Flammulated Owl
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This block does not contain any critical habitat features for this species. The proposed block does not overlap preferred habitat, peripheral habitat or known locations of any of these species. There were no sightings of this species during development. A BC Species and Ecosystem Search was completed (November 2022) and this species wasn't associated with this block. No special management strategies are prescribed.
Result or Strategy Description	5.7.6 Spotted Bat
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This block does not contain any critical habitat features for this species. The proposed block does not overlap preferred habitat, peripheral habitat or known locations of any of these species. There were no sightings of this species during development. A BC Species and Ecosystem Search was completed (November 2022) and this species wasn't associated with this block. No special management strategies are prescribed.
Result or Strategy Description	5.7.7 Grizzly Bear
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This block is not within a Grizzly Bear compartment as it does not contain high berry production, or riparian spring range as identified in the Recovery Plan for Grizzly Bear in the North Cascades of BC.
Result or Strategy Description	5.7.8 "Great Basin" Gopher Snake
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This block does not contain any critical habitat features for this species. The proposed block does not overlap preferred habitat, peripheral habitat or known locations of any of these species. There were no sightings of this species during development. A BC Species and Ecosystem Search was completed (November 2022) and this species wasn't associated with this block. No special management strategies are prescribed.
Result or Strategy Description	5.7.9 Williamson's Sapsucker
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This block is outside the Western Area of Occupancy (AO) for the Williamsons Sapsucker identified in the best management practices document noted in section 5.7.9 of the FSP and FSP background document. There were no Williamsons Sapsuckers noted in the block during development activities. The block is consistent with sections 5.7.9 of the FSP.

STOCKING REQUIREMENTS

SU	NAR	STANDARDS ID #	OTHER PERFORMANCE STANDARDS
1	62.4	1010361	

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2023 06 07	YES

RPF PRINTED NAME	RPF'S SIGNATURE and SEAL
RICHARD SWANSON	
DATE SIGNED	
2023/06/07	
I certify that the work described herein fulfils standards expected of a member of the Association of British Columbia Forest Professionals, and that I did personally supervise the work.	

Map attached forms an integral part of the site plan.

SUPPORT DOCUMENT

ORIGINAL

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
A93300	-	COAMP	BEAMP	092H017	Merritt/Lillooet FDU	Copper Creek	49 10 49 / 120 41 09

ASSESSMENTS

VISUAL IMPACT ASSESSMENT INFORMATION
<p>This site is within VLI Polygon #2765 Landform L1B which has a VQO of Partial Retention. Due to extensive salvage logging in the Copper Creek area recovering timber from the 2021 Garrison Lake wildfire, FSP #109 Ammendment 4 increased the VQO for Landform L1B to Maximum Modification (PENDING APPROVAL). The results of the VIA determined that following harvesting activities , this block is expected to be consistent with the VQO of Modification.</p>
PEST INCIDENCE SURVEY INFORMATION
Pest Specific Comments
N/A
Forest Health Comments
<p>This block experienced a moderate to high intensity burn in the 2021 Garrison Lake wildfire.</p> <p>Windthrow: Windthrow risk for the block is assessed as high. The blocks dispersed retention prescription was planned to mitigate windthrow risk while enhancing biodiversity on the site.</p>
ARCHAEOLOGICAL IMPACT ASSESSMENT INFORMATION
No AIA was required.
TERRAIN STABILITY FIELD AND GULLY ASSESSMENTS INFORMATION
Terrain Stability Comments
<p>Slopes within the block range from 0-70%. The main access road ME R20837.01 cuts across a steep sideslope for 700m (45-61%). The slope below ME R20837.01 is consistent down to the Sunday Summit FSR. Above ME R20837.01 (100 to 200 m), the slope flattens onto a broad flat-topped ridge. The surficial material observed was a well-drained silt-sand till with minor bedrock. Block is planned for gentle over steep with uncertain soil conditions post burn. The block has hydrophobic soils after the burn. For these reasons, a Terrain stability Assessment was completed by Westrek Geotechnical Services ltd . on September 21, 2022.</p> <p>Two areas of the block were identified as having higher risk of terrain stability issues due to their proximity to TC IV terrain . Area 1 which consists of the Western portion of the block, downslope of COAMP.02, and Area 2 which consists of the Southern end of the block. The section of road ME R20837.01 between R1 and R14 was also identified and assessed.</p> <p>Results: -The likelihood of a post-harvest landslide occurring (i.e., the P(H)) on the steeper slopes below Area 1, due to canopy removal alone, is estimated as low. -The likelihood of a post-harvest landslide occurring (i.e., the P(H)) on the slopes below Area 2, due to canopy removal alone, is estimated as very low. -The likelihood of post-harvest landslide occurring (i.e., the P(H)) on the steeper slopes around the R1 to R14 road segment is estimated as low.</p> <p>Recommendations: -There were no recommendations for Areas 1 and 2 as they can be managed using standard operating procedure. -Deactivate ME R20837.01 by re-establishing natural drainage paths along the road segment between RT 1 and RT14 as soon as is feasible after silviculture obligations are met. -The TSA recommends the use of a 500 mm culvert at RT6 and a 600 mm culvert at RT7. (600mm CMPs are currently planned)</p>
Gully Comments
N/A
VEGETATION
N/A

RIPARIAN ASSESSMENTS					
Management Strategies					
<p>Riparian classifications are as per Section 47, 48 and 49 of the FPPR. There are no classified streams, wetlands or lakes within the block area. There are two classified streams associated with this block: S4-1 and S6-2. Both are being managed for Coastal Tailed Frog by locating the block boundaries >50m away from the stream edge. This management will retain 100% of the core and management area as per FSP 5.7.5. No further management is required.</p>					
Riparian I.D. and Class	RMA	SU	WIDTH (m)	BA or SPH Retained	Comments (Indicate if in a Community Watershed)
1 S4	RRZ		30.0		
	RMZ		20.0		This stream is defaulted to Coastal Tail Frog habitat . In order to ensure that sufficient habitat protect, the block boundary is located >57m away from the stream. No additional managment is required. The RMZ is not flagged in the field as it is all outside the block.
2 S6	RMZ		20.0		This stream is defaulted to Coastal Tail Frog habitat . In order to ensure that sufficient habitat protect, the block boundary is located >64m away from the stream. No additional managment is required. The RMZ is not flagged in the field as it is all outside the block.
	RRZ		30.0		

SOIL ASSESSMENT							
HAZARD RATINGS				SOIL CHARACTERISTICS			
SU	Soil Comp	Soil Erosion	Soil Disp	Depth To Unfavourable Subsoil		Type of Unfavourable Subsoil	Sediment Delivery Risk (Community Watersheds)
				Min(cm)	Max(cm)		
1	L	H	L	0.0	40.0	SM	
COMMENTS							
Though not meeting the legal definition of sensitive soils, the block is being managed to a maximum soil disturbance limit of 5%. Recommend harvest on dry or frozen soils or on soils covered with sufficient snowpack to meet the stated soil disturbance objectives . Monitor soil conditions if persistent wet weather is encountered during harvesting to avoid excessive soil disturbance. Recommend using a random skidding pattern and avoid skidding across depression areas when wet.							

RESERVE / RETENTION INFORMATION

WTRA / WTP (INSIDE OR ATTRIBUTED TO THE BLOCK)		
I.D.#	Area	Description
WTRA	11.9	WTRA 1- Contains moderate intensity burn FdSxBI with dense burnt understory and moderate levels of CWD. Steep inoperable terrain WTRA 2- Contains low intensity burned FdSxBI with dense understory and low CWD WTRA 3- burnt wood with scattered green tops. BISxFdPI mature stems, BIPIFd poles. low CWD WTRA 4- Contains burnt SxBI with mixed charred snags. Located to break up the 58ha clear-cut. Cover for wildlife from predators WTRA 5- Sx6BI, low-moderate CWD. steep slope with draw. high intensity burn (leopard print) 25-60cm DBH, 27-39m height. regen is burnt WTRA 6- Contains moderate severity burn FdSxBI with dense understory and moderate levels of CWD WTRA 7- burnt wood with scattered green tops, steep slopes and rock. WTRA 8- Contains moderately burnt FdSxBI with sense understood and moderate CWD WTRA 12- burnt wood with scattered green tops. BISxFdPI mature stems, BIPIFd poles. low CWD WTRA 90- burnt wood with scattered green tops, steep slopes and rock. WTRA 91- burnt wood with scattered green tops, steep slopes and rock. WTRA 300- burnt wood with scattered green tops. BIFdPISx mature stems, BIPI poles. low CWD

GROUP WTRA / WTP AND SITE DEG. CALCULATION (to be retained on the first block of the Permit only)						
Block	Gross Cutblock Area	WTRA / WTP	%	BEC	Perm Access	%
COAMP	76.1	11.9	15.6	MS/dm/2	1.8	2.4
Total # of Blocks: 1	76.1	11.9	15.6		1.8	2.4

SUPPORTING INFORMATION

HLP/FSP CONSIDERATIONS
Wildlife/Endangered Species Comments
<p>This stand experienced a moderate to high severity burn in the 2021 Garrison Lake wildfire. The block is >10ha and is therefore considered “unranked” as per the TKA Migratory Bird Strategy (August 8, 2017). The following management strategies have been applied to the stand to manage for migratory birds:</p> <p>-Stubbing on the site has been increased to 20/ha-3-5m tall</p> <p>-All trees live Fd and BI >52.5cm dbh class are to be retained on site (9.5sph)</p> <p>-Wildlife Tree Retention Areas focused on patches of green timber where possible .</p> <p>No migratory birds nesting locations were found during field work.</p> <p>For other wildlife species-see Results and Strategies.</p>
Range Comments
<p>The block is not within an active range tenure.</p>
Fisheries Comments
<p>This block is not in a fisheries sensitive watershed and has no connection to fish habitat. S4-1 was defaulted to fishbearing as per the Kamloops LAA. The block boundary is >50 away from this stream so no additional management is required.</p>
Watersheds/Hydro Assessments Comments
<p>The block is not within a designated community watershed.</p>
Sensitive Areas Comments
<p>N/A</p>
Recreation Comments
<p>This block is not located within or adjacent to a recreation and tourism zone. There are no recreation sites within the immediate vicinity of the block. The Garrison Lakes Recreation Area is located 1.5 km to the Northwest. The Summit Seekers Snowmobile Club trail system is located north of the development.</p>
Cultural Heritage Comments
<p>BCTS has referred this development to all potentially affected First Nations , as was determined through a search of the Consultative Area Database (CAD). All referral communication and management decisions have been documented in a BCTS Due Diligence Report signed off for approval by the Timber Sale Manager (TSM).</p>
Biodiversity Emphasis/L.U. Comments
<p>As per section 5.6 of the FSP, the minimum WTRA for the block is 3.5% with a target of 7.0% when averaged across the TSL. This block has 15.6% WTRA and will meet the minimum target of 3.5% consistent with the targets for this Landscape Unit. The WTRA will meet the required target of 7.0% when averaged across the TSL with a value of 15.6 %.</p> <p>The WTRAs are no more than 500m distance from any other WTRAs or standing timber.</p>
Other Resources Comments
<p>There is no Guide/Outfitter Licence attached to the area.</p> <p>This block overlaps an active Trapline (TR0804T062).</p> <p>There is an active mineral claim: Richard Walker (#1083663)</p>

ADDITIONAL COMMENTS:

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2023 06 07	YES

HARVEST PLAN

ORIGINAL

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
A93300	-	COAMP	BEAMP	092H017	Merritt/Lillooet FDU	Copper Creek	49 10 49 / 120 41 09

SILVICULTURE SYSTEMS

SU	SYSTEM	VARIANT	PHASE	RESERVE	Min BA (m2/ha)	Min Residual Density (sph)
1	CCRES		SALVF	G		
Current Stand Structure/Site Conditions			According to the full volume cruise comp., the net stand merchantable volume by species consists of 44% Sx (9215m3), 30% BI (6410m3), 14% PI (3040m3), 10% Fd (2133m3), 2% Hw (333m3). The net merchantable volume/ha is 330 m3/ha and the total net merchantable volume for the block is 21131 m3. The stand sustained a moderate to high intensity burn from the 2021 Garrison Lake Fire. There is no LFH layer on the soil,			
Silviculture Systems SU Comments			SU-1: Clearcut with reserves: The block is within the MS dm2 BEC with a 05 (60%)/04 (40%) site series and a Loamy Sand soil texture. Coarse fragments are moderate 25%. Slopes are moderate, averaging 24%. The block is engineered for a harvest system using a combination of designated landings and roadside for processing logs using a feller buncher, grapple skidder, and dangle-head processing.			
Min. Characteristics of Leave Trees (Form, Health, Vigour)			There are no deciduous trees in the cruise data. Retain all live Fdi and BI in the 55cm dbh class and above(9.5sph). Retain undersized Douglas-fir, hemlock, spruce and balsam; poles and saplings to be retained should be >1.3m in height, have >50% live crown and preferably be in groups of >3 stems. Conifer stems in layer 2, 3 and 4 should be avoided where they occur in patches. Residual stems should be in moderate to good form and vigor, and free of defects and disease. Stubs will be created (20/ha) in all mechanically felled areas and will be approx. 3-5m in height. Stubs will create future nesting, perching and feeding sites for birds and will contribute over time to coarse woody debris. Stubs will also be preserving a profile of old attributes within the newly established stand. The Licensee must ensure that the cut block boundary is clearly marked following completion of timber harvesting operations by not cutting those trees marked as being on a cut block boundary (boundary trees).			

Additional Comments

Other Resources	<p>Safety: Snags are found throughout the block.</p> <p>The slopes are moderate in the block, averaging 24%. For slopes>35% see the Harvest Plan map for location.</p> <p>Retain all live Fdi and BI in the 55cm dbh class and above. Where possible, retain undersized Douglas-fir, hemlock, spruce and balsam; poles and saplings to be retained should be >1.3m in height have >50% live crown and preferably be in groups of >3 stems. Conifer stems in layer 2, 3 and 4 should be avoided where they occur in patches. Residual stems should be in moderate to good form and vigor, and free of defects and disease.</p> <p>Stubs will be created (20/ha) in all mechanically felled areas and will be approx. 3-5m in height. Stubs will create future nesting, perching and feeding sites for birds and will contribute over time to coarse woody debris. Stubs will also be preserving a profile of old attributes within the newly established stand.</p> <p>Coarse Woody Debris “Critter” piles are to be established in proximity to block and WTRA boundaries . The Licensee will leave 1 pile per 5 hectares on each cut block in the cutting authority area, and each pile will be: a) approximately 2 meters in height by 2 meters in width by 2 meters long. b) located between 20 meters and 50 meters from the cut block boundary. Caution: Consider proximity of other resources or private property, and the potential for fire hazard when locating piles close to the block boundary.</p> <p>If a previously unidentified affected Cultural Heritage Resource is encountered during harvesting , road construction or mechanical site preparation that is carried out or authorized by the TSM , the TSM will require operations to cease to the extent necessary to protect the affected cultural heritage resource until a Cultural Heritage Resource Evaluation can be carried out.</p> <p>Migratory Birds: No migratory birds nesting locations were found during field work.</p> <p>There is no Guide/Outfitter Licence attached to the area. This block overlaps an active Trapline (TR0804T062). There is an active mineral claim: Richard Walker (#1083663)</p> <p>Sensitive Soils: This block has hydrophobic soils due to the recent burn. Soils are being managed to a maximum allowable soil disturbance limit of 5%. Recommend harvest on dry or frozen soils or on soils covered with sufficient snowpack to meet the stated soil disturbance objectives . Monitor soil conditions if persistent wet weather is encountered during harvesting to avoid excessive soil disturbance. Recommend using a random skidding pattern and avoid skidding across depression areas when wet.</p>
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SOIL ASSESSMENT											
SU	HAZARD RATINGS			SOIL DISTURBANCE				SOIL CHARACTERISTICS			
	Soil Comp.	Soil Erosion	Soil Disp.	Max Allow Soil Dist %	Max Allow Max Amount TAS may exceed MASD prior	Max Allow Perm Access Structures %	MASD for Roadside work areas %	Depth to Unfavorable Subsoil		Type of Unfavorable Subsoil	Sediment Delivery Risk (Comm. Watershed)
								Min (cm)	Max (cm)		
1	L	H	L	5.0	5.0	7.0	25.0	0.0	40.0	Sandy Materials	

SU	Critical site conditions that affect the timing of operations and how they affect the timing				
1	This block experienced a moderate to high intensity burn in the 2021 Garrison Lake wildfire. Though not meeting the legal definition of sensitive soils, the soils are being managed to a maximum allowable soil disturbance limit of 5%. Recommend harvest on dry or frozen soils or on soils covered with sufficient snowpack to meet the stated soil disturbance objectives. Monitor soil conditions if persistent wet weather is encountered during harvesting to avoid excessive soil disturbance. Recommend using a random skidding pattern and avoid skidding across depression areas when wet.				
SU MANAGEMENT COMMENTS					
SU	SU Description				
1	SU 1 is in the MSdm2 with a 05(60%) 04(40%) site series (BEC version 7) with a NW aspect. The stand experienced a moderate to high severity burn in 2021 Garrison Lake wildfire. The stand consists of a mix of mature Fd, Sx, Pl and Bl. The terrain is concave averaging 24% with scattered steeper slopes up to 45%. Soils consist of Loamy Sand with 25% coarse fragments and are >40cm deep. SU 1 is planned for ground-based harvesting with a feller-buncher, grapple skidder and dangle-head processor.				
SOIL MANAGEMENT COMMENTS					
Soil Conservation					
Though not meeting the legal definition of sensitive soils, the block is being managed to a maximum soil disturbance limit of 5%. Recommend harvest on dry or frozen soils or on soils covered with sufficient snowpack to meet the stated soil disturbance objectives. Monitor soil conditions if persistent wet weather is encountered during harvesting to avoid excessive soil disturbance. Recommend using a random skidding pattern and avoid skidding across depression areas when wet.					
Temporary Access					
The licensee is responsible for ensuring the maximum soil disturbance limit (5% of the NAR) is not exceeded; TAS road COAMP.01 has a length of 1028 meters. TAS Road COAMP.02 has a length of 522meters. TAS road COAMP.03 has a length of 379m. The TAS area is 0.96 ha- 1.5% of the NAR. COAMP.01, COAMP.02 nd COAMP.03 will all be rehabilitated following harvesting. Maximum soil disturbance levels will comply with FPPR Section 35 in the SU. All landings are temporary. Section 36 is applicable (PAS area <7% of the gross area)- the ME R20837.01 in-block area is 1.67 ha - 2.19% of the gross area. The existing Sunday Summit FSR in-block area is 0.13ha or 0.21% of the gross area. The total PAS is 2.4% of the gross block area. The PAS area will comply with FPPR Section 36.					
TAS and new excavated/bladed trails will be rehabilitated to restore natural surface and shallow subsurface drainage paths, after harvesting activities have been completed, or at least prior to the spring freshet. When rehabilitating roads, upon harvest completion, return displaced surface soils, retrievable side-cast and berm material to the extent practicable and necessary to establish trees. If at the time rehabilitation is not possible due to winter conditions, deactivation (i.e. water bars, cross drains, ditching) must be completed to re-establish natural drainage and avoid concentration of runoff in the following spring . In this situation full rehabilitation must be completed as soon as soil conditions allow after snow melt.					
Slope Instability					
Slopes within the block range from 0-70%. The main access road ME R20837.01 cuts across a steep sideslope for 700m (45-61%). The slope below ME R20837.01 is consistent down to the Sunday Summit FSR. Above ME R20837.01 (100 to 200 m), the slope flattens onto a broad flat-topped ridge. The surficial material observed was a well-drained silt-sand till with minor bedrock. Block is planned for gentle over steep with uncertain soil conditions post burn. The block has hydrophobic soils after the burn. For these reasons, a Terrain stability Assessment was completed by Westrek Geotechnical Services Ltd . on September 21, 2022.					
Two areas of the block were identified as having higher risk of terrain stability issues due to their proximity to TC IV terrain . Area 1 which consists of the Western portion of the block, downslope of COAMP.02, and Area 2 which consists of the Southern end of the block. The section of road ME R20837.01 between R1 and R14 was also identified and assessed.					
Results:					
-The likelihood of a post-harvest landslide occurring (i.e., the P(H)) on the steeper slopes below Area 1, due to canopy removal alone, is estimated as low.					
-The likelihood of a post-harvest landslide occurring (i.e., the P(H)) on the slopes below Area 2, due to canopy removal alone, is estimated as very low.					
-The likelihood of post-harvest landslide occurring (i.e., the P(H)) on the steeper slopes around the R1 to R14 road segment is estimated as low.					
Recommendations:					
-There were no recommendations for Areas 1 and 2 as they can be managed using standard operating procedure.					
-Deactivate ME R20837.01 by re-establishing natural drainage paths along the road segment between RT 1 and RT14 as soon as is feasible after silviculture obligations are met.					
-The TSA recommends the use of a 500 mm culvert at RT6 and a 600 mm culvert at RT7. (600mm CMPs are currently planned)					
RIPARIAN ASSESSMENTS					
Management Strategies					
Riparian classifications are as per Section 47, 48 and 49 of the FPPR. There are no classified streams, wetlands or lakes within the block area. There are two classified streams associated with this block: S4-1 and S6-2. Both are being managed for Coastal Tailed Frog by locating the block boundaries >50m away from the stream edge. This management will retain 100% of the core and management area as per FSP 5.7.5. No further management is required.					
Riparian I.D. and Class	RMA	SU	WIDTH (m)	BA or SPH Retained	Comments (Indicate if in a Community Watershed)
1 S4	RRZ		30.0		
	RMZ		20.0		This stream is defaulted to Coastal Tail Frog habitat . In order to ensure that sufficient habitat protect, the block boundary is located >57m away from the stream. No additional managment is required. The RMZ is not flagged in the field as it is all outside the block.
2 S6	RMZ		20.0		This stream is defaulted to Coastal Tail Frog habitat . In order to ensure that sufficient habitat protect, the block boundary is located >64m away from the stream. No additional managment is required. The RMZ is not flagged in the field as it is all outside the block.
	RRZ		30.0		

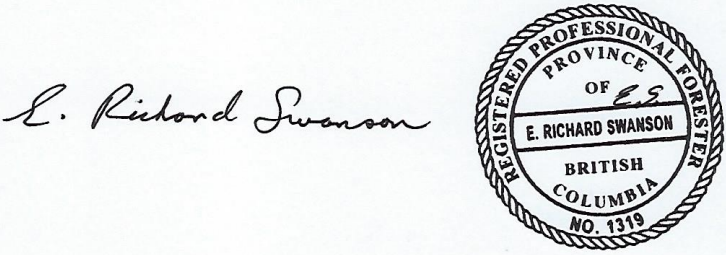
COARSE WOODY DEBRIS MANAGEMENT STRATEGY INFORMATION				
<p>Current Coarse Woody Debris levels are estimated as moderate . Non-merchantable log grades will be left on site. Reserved stems will contribute to future CWD. Any reserve trees that blow down will be left as coarse woody debris unless they become infested with insects that pose a forest health risk. All deciduous stems felled for safety, road construction or other operational purposes are to be left on site as CWD. The licensee must retain a minimum of 4 full length logs per hectare, having a minimum dbh of 17.5cm. Efforts will be made to ensure these logs are not broken at the time of harvesting . Logs may consist of a variety of species and shall be evenly distributed across the cut block.</p> <p>Coarse Woody Debris “Critter” piles are to be established in proximity to block and WTRA boundaries . The Licensee will leave 1 pile per 5 hectares on each cut block in the cutting authority area, and each pile will be:</p> <p>a) approximately 2 meters in height by 2 meters in width by 2 meters long.</p> <p>b) located between 20 meters and 50 meters from the cut block boundary.</p> <p>Caution: Consider proximity of other resources or private property, and the potential for fire hazard when locating piles close to the block boundary.</p>				
Performance Std. (%) :	100.0	Block Target (%):	100.0	Coarse Woody Debris (m3/ha): 4.0

DEFINITIONS

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2023 06 07	YES

Print off the PAS/TAS table located as an attachment on the Block Details Screen and attach to this prescription.

RPF PRINTED NAME	RPF'S SIGNATURE and SEAL
RICHARD SWANSON	
DATE SIGNED	
2023/06/07	
I certify that the work described herein fulfils standards expected of a member of the Association of British Columbia Forest Professionals, and that I did personally supervise the work.	

SILVICULTURE PLAN

ORIGINAL

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
A93300	-	COAMP	BEAMP	092H017	Merritt/Lillooet FDU	Copper Creek	49 10 49 / 120 41 09

ECOLOGICAL INFORMATION

SU	Ecology Unit	Area	Zone	Subzone	Variant / Phase	Site Series (series - %)	Elevation Avg (m)	Slope Avg (%)	Aspect	Slope Position	Rooting Depth (cm)	Soil Texture
1	A	62.42	MS	dm	2	05-60 04-40	1,450	25	NW	Upper Slope	28	LS

STOCKING REQUIREMENTS				
ASSESSMENT DATES				
Standard Unit	Standards ID	Regen Delay (yrs)	Freegrow Early (yrs)	Freegrow Late (yrs)
1	1010361	4	0	20
Min/Max Elevation Regime: 1360 / 1540				

SU : 1													REGENERATION LAYER			
PREFERRED SPECIES				ACCEPTABLE SPECIES				POST SPACING DENSITY(sph)				MAX CONIFEROUS (sph)				
Species		Min Ht. (m)	Footnotes	Species		Min Ht. (m)	Footnotes	Min	700	Max	4000					
Fdi	Douglas Fir - Interior	0.8		Bl	Subalpine Fir	0.8		WELL SPACED TREES (sph)					Min Horizontal Dist. Pref/Acc (m)			
Sx	Hybrid Spruce (SE x SW)	0.8		Lw	Western Larch	1.4		Target Pref/Acc		Minimum Pref/Acc		Minimum Pref				
Pli	Lodgepole Pine - Interior	1.4		Cw	Western Red Cedar	0.8		1200		700		600	2.0			
												Height Relative to Competition (%)				
												125				

OTHER REQUIRED STOCKING INFORMATION

ACTIVITIES

PLANTING						
Planting(Container) 2027/05/01 SEASON:						
AREA	PLANTING UNIT	UNIT AREA	SPECIES	COMMENTS	STEMS / HA	TOTAL STEMS
62.4	1	62.4	Douglas Fir - Interior		280	17472
			Lodgepole Pine - Interior		400	24960
			Spruce group		880	54912
			Western Larch		40	2496
			LIMITING FACTORS / COMMENTS			

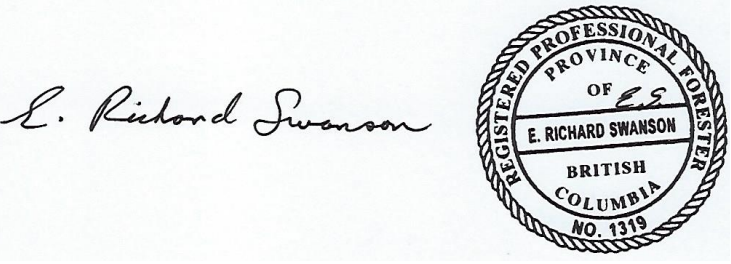
SILVICULTURE ACTIVITY COMMENTS	
ACTIVITY	COMMENT

MANAGEMENT STRATEGY

COARSE WOODY DEBRIS MANAGEMENT STRATEGY INFORMATION	
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Performance Std. (%):	100.0
Block Target (%):	100.0
Coarse Woody Debris (m3/ha):	4.0

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2023 06 07	YES

RPF PRINTED NAME	RPF'S SIGNATURE and SEAL
RICHARD SWANSON	
DATE SIGNED	
2023/06/07	
I certify that the work described herein fulfils standards expected of a member of the Association of British Columbia Forest Professionals, and that I did personally supervise the work.	