



SITE PLAN CARIBOO-CHILCOTIN BC TIMBER SALES

Cariboo-Chilcotin

Version: July 2018
ORIGINAL

TENURE IDENTIFICATION

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
A80534	-	2	BL83W	093B.090-246	FDU 1	Gerimi	52°49'22' / 122°10'11'

AREA UNDER THE PLAN

GROSS AREA (TAUP)	PAS	NP	WTRA	RESERVES	OTHER	NAR
3.3	0.03	0.0	0.6	0.0	0.0	2.7

ADDITIONAL COMMENTS

OTHER RESOURCES
The treatments prescribed in this Site Plan are consistent with the Quesnel - BC Timber Sales 2012 Forest Stewardship Plan.

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	10	-	25.0	1.1
SU	CRITICAL SITE CONDITIONS THAT AFFECT THE TIMING OF OPERATIONS, AND HOW THEY AFFECT THE TIMING			
1	This SU has a high compaction hazard. Harvest on dry or frozen soils or on soils with >30cm compressible snowpack.			

RESULTS AND STRATEGIES

Biodiversity Objectives	
Result or Strategy Description	4.4.1 OSBG for Wildlife and Biodiversity Landscape Level
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The objectives for Landscape Level Biodiversity of the FSP are achieved through Results and Strategies specified in other sections of the FSP..
Result or Strategy Description	4.4.2 Seral Stage Targets
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed block is consistent with the most recent Seral Stage Analysis dated 2015 for the SBSmh BEC subzone in the Gerimi Landscape Unit as specified in the FSP. Therefore, the development is consistent with the FSP. Gerimi Landscape Unit = Intermediate Biodiversity Emphasis. As per the ILMB Seral Report (2015) in the Gerimi Landscape Unit there are 2903ha of Mature and Old available for harvest in the SBSmh The proposed development is a Fir Beetle Salvage.
Result or Strategy Description	4.5.1 LUOR & OSBG for Wildlife and Biodiversity - Stand Level
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed block is within the SBSmh BEC subzone and the Landscape unit is Gerimi LU. The WTR target is 7 % for the TSL. The proposed block is consistent with WTR targets identified in the FSP. Greater than 7% of the gross TSL area has been retained as WTRA. No harvesting of existing WTRAs has been proposed.
Result or Strategy Description	5.1 Invasive Plants (Measure)
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	No invasive plants are known to exist near (<5km) this TSL based on a review of the Invasive Alien Plant Program Display. To mitigate introduction or spread of invasive weeds disturbed contiguous areas such as ditch-lines, cut-slopes, fills and waterbars on permanently deactivated roads covered by this site plan and not subject to reforestation activities will be broadcast seeded within one year of disturbance. The forage mixture used for seeding must meet or exceed Common Number 1 Forage Mixture specification.
Result or Strategy Description	4.4.3 Permanent-static and Permanent-rotating OGMA's
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed block is located outside of Permanent and Permanent Rotational OGMA's.
Result or Strategy Description	4.4.4 Transition OGMA's
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed block is located outside of Transition OGMA's.
Result or Strategy Description	4.4.5 LUOR Reporting OGMA changes
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed block is located outside of Permanent, Permanent Rotational or Transitional OGMA's.

RESULTS AND STRATEGIES (Continued)

Result or Strategy Description	4.4.6 Cariboo-Chilcotin Grassland Benchmark Area
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed block is located outside of the grassland benchmark areas, as identified in the FSP and associated maps.
Result or Strategy Description	4.4.7 Quesnel ERDZ
Applies:	Yes
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed block is located within the Quesnel ERDZ, as identified in the FSP and associated maps. This block does not contain a deciduous leading stand.
Result or Strategy Description	4.4.8 FDU 2 Sensitive habitats
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This site plan does not propose harvesting within the four sensitive sites series within the SBSmh BEC zones that are identified in the FSP.
Result or Strategy Description	4.4.9 Forest Corridors
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This site plan does not propose harvesting within a forest corridor within FDU 2 as identified in the FSP and associated maps.
Cultural Heritage Resources	
Result or Strategy Description	4.10.1- OSBG for Cultural Heritage Resources
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	Where a protocol agreement with First Nation(s) has been developed in accordance with their traditional use areas, the protocol agreement(s) are followed for the area covered by this site plan. Any information received is considered. Where protocol agreements are not in place, First Nations are notified of the proposed location of the block within their traditional interest areas and information regarding cultural heritage resources is requested. Any information received is considered.
Fisheries Objectives	
Result or Strategy Description	4.6.5 Critical Fish Habitat
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed block is located outside of critical fish habitat areas as identified in the FSP and associated maps.
Result or Strategy Description	4.6.6 Salmon Watersheds FDU 1
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed block is located within portions of the <i>Quesnel</i> river watershed and is within the FDU 1, as identified in the FSP and associated maps. The proposed block is consistent with the Salmon Watershed R & S for FDU #1 as the site plan is consistent with the R&S within 4.4, 4.5, 4.6.1 and 4.6.3 of the FSP.
Result or Strategy Description	4.6.7 Salmon Watersheds FDU 2
Applies:	No
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed block is located outside of the portions of the Blackwater and Cottonwood River watersheds that fall within the FDU2, as identified in the FSP and associated maps.
Forage and Associated Plant Communities	
Result or Strategy Description	4.9 Range
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed activities covered under this site plan are located within a range tenure RAN077291. Affected range tenure holders have been notified of the proposed block location and asked for comment. Any comments received have been considered in this Site Plan. The operations under this site plan will not reduce the authorized level of AUMs as identified in the FSP.
Result or Strategy Description	5.2 Natural Range Barriers (Measure)
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	Affected range tenure holders have been notified of the proposed block and road location and asked for comment. Any comments received have been considered in this Site Plan. The operations under this site plan do not overlap a known Natural Range Barrier as identified in the FSP
Recreation Resources	
Result or Strategy Description	4.7.5 Wildcraft
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	Quesnel ERDZ: From the CCLUP 90 day report - Wildcraft - to maintain road access to 80% of the polygon. Access to the rest of the polygon will be walk-in off permanent main roads, or temporary in conjunction with forest industry development or mineral exploration. No primary roads are covered by this SP
Result or Strategy Description	4.7.2 Back Country
Applies:	No
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed block is located outside of Backcountry polygons as identified in the FSP and associated maps.
Result or Strategy Description	4.7.1 Recreation Sites and Trails
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed block is not located within or adjacent to Recreation Sites or Trails, as identified in the FSP and associated maps.

RESULTS and STRATEGIES (Continued)

Result or Strategy Description	4.7.3 Buffered Trails
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed block is not located within 50 meters of a buffered trail as identified in the FSP and associated maps.
Result or Strategy Description	4.7.4 Alexander Mackenzie Heritage Trail
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed block is not within 100 meters of the Alexander Mackenzie Heritage Trail.
Result or Strategy Description	4.7.6 Access
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no primary roads covered by this SP There are no permanent road access restrictions associated with this Zone
Riparian Management	
Result or Strategy Description	4.6.1A Riparian Reserve Zones retention for all Riparian Classes
Applies:	Yes
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	All riparian features in and adjacent to the proposed block have been assessed, classified and are indicated on the Site Plan map. The proposed harvesting and block roads are located outside of riparian reserve zones of streams, wetlands and lakes.
Result or Strategy Description	4.6.1B Riparian Management Zones retention for all Riparian Classes
Applies:	Yes
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The harvesting and block roads proposed in this SP are located outside of the riparian management zones of streams, wetlands, and lakes.
Result or Strategy Description	4.6.1D Riparian Management Zone retention for S4
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no S4 streams within or adjacent to the harvest area. The proposed harvesting covered by this SP is not within a riparian management zone of an S4 stream.
Result or Strategy Description	4.6.2 Lakeshore Management
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The harvesting and block roads proposed in this SP are not within a lakeshore management zones of a classified lake as identified in the FSP and associated maps. No primary roads covered by this site plan are within 2000 meters of a refugia or wilderness fisheries lake.
Result or Strategy Description	4.6.1C RMZ Machine Free Zone for S4, S5, S6, W3, W4, L3, and L4
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The harvesting proposed in the SP are not within 5 meters of a riparian feature classified as S4, S5, S6, W3, W4, L3 and L4.
Soil Management	
Result or Strategy Description	4.1 Soils
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The Site Plan is consistent with Section 35 and 36 of the FPPR. Section 35 and 36 of the FPPR apply to the TSL holder.
Timber Objectives	
Result or Strategy Description	4.2 Timber
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The objectives of section 4.2 (Timber) of the FSP are achieved through Results and Strategies specified in other sections of the FSP.
Visual Objectives	
Result or Strategy Description	4.8.1 Scenic Areas
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed block is located outside of Scenic Areas as identified in the FSP and associated maps.
Result or Strategy Description	4.8.2 High Elevation View Points FDU 1
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed block is located outside of areas viewed from High Elevation Viewpoints as identified in the FSP and associated maps.
Water Management Objectives	
Result or Strategy Description	4.6.3 Watershed Hydrology FDU 1
Applies:	No
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed block is located outside of the Cariboo and Cottonwood River watersheds as identified in the FSP and associated maps.

RESULTS & STRATEGIES (Continued)

Result or Strategy Description	4.6.4 Watershed Hydrology FDU2
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed block is located outside of FDU2 and the Cottonwood River watersheds as identified in the FSP and associated maps.
Result or Strategy Description	4.6.8 Community Watersheds
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed block is not located within a community watershed, as identified in the FSP and associated maps.
Wildlife Objectives	
Result or Strategy Description	4.3.1 OSBG Wildlife
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The objectives of section 4.3.1 (Wildlife) of the FSP addressing FPPR section 7 are achieved through Results and Strategies specified in other sections of the FSP. This block overlaps Migratory Birds Nest Habitat. Due to Douglas-fir leading, IBM, and little to no shrub or conifer understory the Migratory Birds Nest Habitat rank is 3 for the block, no restrictions for beetle sanitation.
Result or Strategy Description	4.3.2.2 FDU 1 LUOR Grizzly Bear
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed block is located outside of the Moderate, High or Very High grizzly bear capability units, as identified in the FSP, LUOR Objective # 33 and 34, and associated maps. The prescribed area is not located within 100m of a herb-dominated avalanche track, a run out zone on southerly and westerly aspects or within critical fish habitat and there are no known grizzly dens in the area.
Result or Strategy Description	4.3.2.3 Species at Risk Outside of WHAs
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	No known Species at Risk listed for the Quesnel area were identified and associated within this proposed block as identified in the FSP, and associated maps
Result or Strategy Description	4.3.3.1A Moose - High Value Wetlands
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	No harvest of Riparian Management Areas (RMAs) associated with a High Value Wetland for Moose is proposed in this site plan. There are no roads proposed for construction within 500 meters of a wetland designated as High Value Wetlands for Moose. The roads proposed in this SP are not within the viewscape of a designated High Value Wetlands for Moose..
Result or Strategy Description	4.3.3.2 Fur-Bearers
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The site plan is consistent with the FSP for management of Fur-Bearers through landscape level management, wildlife tree retention and riparian management specified in other sections of the FSP.
Result or Strategy Description	4.3.2.1 WHAs
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed block is located outside of the Wildlife Habitat Areas of American White Pelican, Mountain Caribou, Northern Caribou and the Data Sensitive Species, as identified in, GAR Orders and associated maps and within FDU # 1 of the FSP.
Result or Strategy Description	4.3.3.1B Moose - Wetland RMZ Retention
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed block is located outside and not adjacent to the applicable moose management areas of Riparian Management Zones for W1, W3, W5 wetlands and shrub-carrs.
Result or Strategy Description	4.3.4.1 Mule Deer FDU1
Applies:	Yes
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed block is located in the Mule Deer Winter Range within FDU 1, as identified in the FSP and associated maps. The area subject to this site plan is consistent with GWM 14 of the Government Action Regulation Order #U-5-001 - Ungulate Winter Ranges in that harvesting is to occur for the purposes of Douglas-fir bark beetle sanitation to remove currently infested stems.
Result or Strategy Description	4.3.4.2 Mule Deer FDU2
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed block is located outside of the applicable management areas of Mule Deer Winter Range within FDU 2, as identified in the FSP and associated maps.

STOCKING REQUIREMENTS

SU	NAR	STANDARDS ID #	OTHER PERFORMANCE STANDARDS
1	2.7	1018916	Stand Density: The maximum countable stocking, at the time of free growing declaration, for lodgepole pine leading stands where pine is > 80 percent of the inventory is 25,000 stems per hectare. All other species and mixed pine stands where pine is less than 80 percent of the inventory will have a maximum of 10,000 countable stems per hectare at the time of free growing declaration. Appropriate post spacing minimum and maximum densities will be determined site specifically based on a professional evaluation which considers a variety of factors including crop tree species, health and vigour, site characteristics and target timber product
COMMENTS		The following requirements must be met in order to meet acceptable species standards in regard to form, health and vigour: less than 17.5cm dbh, straight stem with no breaks, bark damage less than 50% of circumference, free of all active disease and insect damage (and agents) except low levels of defoliator activity, live crown greater than 33%.	

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2018 11 20	YES

RPF PRINTED NAME	RPF'S SIGNATURE and SEAL
Cam Forrester. RPF	
DATE SIGNED	
November 20, 2018	
I certify that I have reviewed this document and, while I did not personally supervise the work described, I have determined that this work has been done to standards acceptable of a Registered Professional Forester.	

The Site Plan and Harvest Plan maps form an integral part of the Site Plan.

SUPPORT DOCUMENT

ORIGINAL

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
A80534	-	2	BL83W	093B.090-245	FDU 1	Gerimi	52°49'22' / 122°10'11'

ASSESSMENTS

VISUAL IMPACT ASSESSMENT INFORMATION

This block is not located in a visually sensitive polygon. No VIA is required.

PEST INCIDENCE SURVEY INFORMATION

Pest Specific Comments

There are a few green and red attack Douglas-fir trees by bark beetles. The area has had DFB trap trees within the harvest area. The boundary is laid out so as to salvage log / sanitation log the infected Douglas-fir areas.

Forest Health Comments

This Site Plan is consistent with the current Bark Beetle Strategy for this area. Other forest health factors will be monitored at the time of silviculture Survey.

ARCHAEOLOGICAL IMPACT ASSESSMENT INFORMATION

There is no high AOA potential within or adjacent to the block boundary.

TERRAIN STABILITY FIELD AND GULLY ASSESSMENTS INFORMATION

Terrain Stability Comments

Terrain Stability Assessment carried out on the block by Onsite Engineering Ltd. in October of 2018 determined that there was a low likelihood of a harvesting related landslide occurring within or downslope of the block and that no restrictions on harvesting operations or changes to the cutblock layout are required.

Gully Comments

There are no gullies associated with this block.

Vegetation

No invasive plants are known to exist near (<5km) this TSL based on a review of the Invasive Alien Plant Program Display.

RIPARIAN ASSESSMENTS

Management Strategies

There are wetter depressions between the units within this block. They have been removed from the harvest area.

Riparian I.D. and Class	RMA	SU	WIDTH (m)	BA or SPH Retained	Comments (Indicate if in a Community Watershed)
1 NCD	0	1	.20	N/A	Seasonal Flow. NCD located outside Harvest area.
2 NCD	0	1	.10	N/A	Seasonal Flow. NCD located outside Harvest area.

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	H	M	H	41	70	Granular	N/A

COMMENTS

SU 1 has a high compaction hazard. Harvest on dry or frozen soils or on soils with >30cm compressible snowpack.

WTRA INFORMATION

WILDLIFE TREE PATCHES (INSIDE OR ATTRIBUTED TO THE BLOCK)

I.D.#	Area	WTRA Description
WTRA	0.5	WTRA: S4F4PI2 110/110-21/21-18/E-30-700(18)

WTRA AND SITE DEG. CALCULATION (to be retained on the first block of the Permit only)

Block	Gross Cutblock Area	WTRA ha	WTRA %	BEC	Perm Access ha	Perm Access Site Deg %
2	3.3	0.6	18	SBSmh-01	0.03	1.1

SUPPORTING INFORMATION

HLP/FSP CONSIDERATIONS

Wildlife/Endangered Species Comments

Moose, deer and bear sign noted. No species at risk species known or identified for the area.

Due to Douglas-fir leading, IBM, and little to no shrub or conifer understory the Migratory Birds Nest Habitat rank is 3 for the block, no restrictions for beetle sanitation.

Range Comments

The proposed activities covered under this site plan are located within a range tenure. Range tenure holders have been notified of the planned harvest activities.

Fisheries Comments

None.

Watersheds/Hydro Assessments Comments

This block is located outside of the Baezaeko, Cariboo, Bowron, Cottonwood River, or Nazko River watersheds. It is located inside the Quesnel River Watershed.

SUPPORTING INFORMATION (Continued)

Sensitive Areas Comments
N/A
Recreation Comments
Normal hunting and hiking use expected.
Cultural Heritage Comments
An AOA has been completed and this block contains no high archaeological impact potential. No further assessments are required.
Biodiversity Emphasis/L.U. Comments
This block is located in the Gerimi Landscape Unit. Stand level biodiversity will be addressed through retention single stem harvesting. The block was designed to address current Bark Beetle infestation and limit further infestation. Stand level biodiversity targets will be met utilizing the standing timber that is located within the proposed opening to be consistent with the FSP, where <50% of pre-harvest stand basal area is to be removed. A WTRA has been set aside to create continuity of mature timber from areas of high elevation to low elevation.
Other Resources Comments
Windthrow: This block has a Low to moderate windthrow hazard. WTRA's and other reserves are of sufficient size to minimize windthrow. Some edge windthrow will likely occur. An overview of the area indicates that prevailing winds are from the south Trapper: TR0502T045 Guides: Bowden, Brad;500938 Mineral Claims: Block: Adjacent to logged blocks but not overlapping. Private: Adjacent to L 1 DLS 12264 &12894 Cariboo
ADDITIONAL COMMENTS:
Other Resources
A walkthrough has been conducted on this block and it does not meet the definition of secondary stand structure that is identified within the FPPR.

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2018 11 20	YES

RPF PRINTED NAME	RPF'S SIGNATURE and SEAL
Cam Forrester. RPF	
DATE SIGNED	
November 20, 2018	
<p>I certify that I have reviewed this document and, while I did not personally supervise the work described, I have determined that this work has been done to standards acceptable of a Registered Professional Forester.</p>	

THE FOLLOWING INFORMATION IS ATTACHED FOR INFORMATION ONLY AND DOES NOT FORM PART OF THE SITE PLAN

HARVEST PLAN

ORIGINAL

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
A80534	-	2	BL83W	93B090-246	FDU 1	Gerimi	52°49'22' / 122°10'11'

SILVICULTURE SYSTEMS

SU	SYSTEM	VARIANT	PHASE	RESERVE	Min BA (m3/ha)	Min Residual Density (sph)
1	SELEC	SALVP	REMOV	G	--	-
Current Stand Structure/Site Conditions			The area covered under this site plan is a Douglas Fir stand with scattered deciduous and IBM infested Pli. This Douglas-fir stand has been allocated for harvest to remove Bark beetle infested stems. 100% of the stems identified as infected with Douglas-fir beetle are to be harvested. All blowdown is to be harvested during site operations.			
			SU 1Single Tree selection IBM infected tree removal			
Silviculture Systems SU Comments						
Min. Characteristics of Leave Trees (Form, Health, Vigour)			NPUNN: No retention in this area as it is the in-block roads. SU 1: Reserve all standing trees that are not marked with a red painted ring or horizontal line and are not required to be removed. Stems not infected with IBD may have a red painted dot visible, and shall be reserved. All stems not marked for harvest, minus those required for removal for access (skid trails), are to be left standing on site for basal area retention. Blowdown, uprooted and leaning/supported stems are anticipated to be removed during harvest due to windthrow. These stems have not been marked in the field. Stems infected in previous years in the red or grey state may be marked with an "X" and shall not be harvested, as no live brood could be identified. Absolutely no harvest of any trees not marked or not infected with Douglas fir beetle greater than 37.5cm DBH. Caution is to be exercised during harvest as to not damage leave trees during operations. Reserve acceptable understory regen less than 17.5cm DBH where practicable.			
Harvesting Constraints	SU1 has a high soil compaction hazard. Harvest on dry or frozen soils or on a compressible snowpack of greater than 30cm.					
Silvicultural Constraints	Refer to Minimum Characteristics of Leave Trees for ability to remove reserved species due to safety, development and damage.					
	A post-harvest assessment will be done to prescribe the reforestation approach. If planting is prescribed, acceptable planting spots should focus on elevated, well-drained, aerated micro-sites.					

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	H	M	H	10	-	1.1	25.0	41	70	Granular	N/A
SU	Critical site conditions that affect the timing of operations and how they affect the timing										
1	This block has a high compaction hazard. Harvest on dry or frozen soils or on a compressible snowpack of greater than 30cm.										
SU MANAGEMENT COMMENTS											
SU	SU Description										
1	SBSmh 01 - Zonal										
SOIL MANAGEMENT COMMENTS											
Soil Conservation											
This block has a high compaction hazard. Harvest on dry or frozen soils, or on a compressible snowpack of > 30cm.											
Temporary Access											
N/A											
Slope Instability											
This block does not contain unstable or potentially unstable terrain as per overview terrain stability mapping. No indicators of instability were noted in the field. No further action required.											

RIPARIAN ASSESSMENTS					
Management Strategies					
Riparian I.D. and Class	RMA	SU	WIDTH (m)	BA or SPH Retained	Comments (Indicate if in a Community Watershed)
1 NCD	0	1	.20	N/A	Seasonal Flow. NCD located outside Harvest area.
2 NCD	0	1	.10	N/A	Seasonal Flow. NCD located outside Harvest area.

COARSE WOODY DEBRIS MANAGEMENT STRATEGY INFORMATION					
<p>1. Retain a minimum of 6m³ per hectare of CWD. A minimum of 4 logs per hectare, each being a minimum of 2m in length and 7.5 cm diameter at one end, composed of dead useless material, will be retained onsite to contribute to coarse woody debris. There is a commitment as a general objective to retain and recruit woody debris throughout the block, rather than at roadside work areas and landings. CWD consisting of merchantable volume must not exceed 5.0m³ per hectare on any given hectare throughout the block.</p> <p>2. Reduce the number and size of CWD accumulations on roadsides and landings by leaving these accumulations scattered throughout the block; reduce the incorporation of large woody debris pieces in the remaining accumulations on roadsides and landings. CWD retention must be retained in elevated accumulations where practicable in order to provide winter foraging and denning opportunities to wildlife. Elevated accumulations should measure approximately 0.5-2.0m in height and 3-5m in diameter. Elevated CWD accumulations should be established in association with stub trees, machine free zones, and reserve areas where possible in order to prevent flattening during harvesting operations and minimize the impact on site preparation.</p> <p>3. Stubs and reserved trees will provide sources of CWD recruitment.</p>					
Performance Std. (%)	-	Block Target (%):	-	Coarse Woody Debris m ³ /ha:	-

ADMINISTRATION		
Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2018 11 20	YES
RPF PRINTED NAME	RPF'S SIGNATURE and SEAL	
Cam Forrester, RPF		
DATE SIGNED		
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SILVICULTURE PLAN

ORIGINAL

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
A80534	-	2	BL83W	93B090-246	FDU 1	Gerimi	52°49'22' / 122°10'11'

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	2.7	SBS	mh	01	01	770	5	W	mid	35	L-SiL

STOCKING REQUIREMENTS

ASSESSMENT DATES

Standard Unit	Standards ID	Regen Delay (yrs)	Freegrow Early (yrs)	Freegrow Late (yrs)
1	1018916	7	-	20
Min/Max Elevation Regime:		760m-780m		

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	-	Max	-	-	
						WELL SPACED TREES (sph)					
Fdi Douglas-fir Interior Sx Hybrid Spruce (SE x SW)	1.4		Bl Subalpine Fir	1.0	29	Target Pref/Acc		Minimum Pref/Acc		Minimum Pref	Min Horizontal Dist. Pref/Acc (m)
	1200					700		600	2.0		
						Height Relative to Competition (%)					
								150			

32: Limited by growing-season frosts

29: Risk of heavy browse by moose

OTHER REQUIRED STOCKING INFORMATION

The following requirements must be met in order to meet acceptable species standards in regard to form, health and vigour: less than 17.5cm dbh, straight stem with no breaks, bark damage less than 50% of circumference, free of all active disease and insect damage (and agents) except low levels of defoliator activity, live crown greater than 33%.

SILVICULTURE ACTIVITY COMMENTS

ACTIVITY	COMMENT
Silviculture Constraints	A post-harvest assessment will be done to prescribe the reforestation approach. If planting is prescribed, acceptable planting spots should focus on elevated, well-drained, aerated micro-sites.

MANAGEMENT STRATEGY

COARSE WOODY DEBRIS MANAGEMENT STRATEGY INFORMATION

1. Retain a minimum of 6m³ per hectare of CWD. A minimum of 4 logs per hectare, each being a minimum of 2m in length and 7.5 cm diameter at one end, composed of dead useless material, will be retained onsite to contribute to coarse woody debris. There is a commitment as a general objective to retain and recruit woody debris throughout the block, rather than at roadside work areas and landings. CWD consisting of merchantable volume must not exceed 5.0m³ per hectare on any given hectare throughout the block.
2. Reduce the number and size of CWD accumulations on roadsides and landings by leaving these accumulations scattered throughout the block; reduce the incorporation of large woody debris pieces in the remaining accumulations on roadsides and landings. CWD retention must be retained in elevated accumulations where practicable in order to provide winter foraging and denning opportunities to wildlife. Elevated accumulations should measure approximately 0.5-2.0m in height and 3-5m in diameter. Elevated CWD accumulations should be established in association with stub trees, machine free zones, and reserve areas where possible in order to prevent flattening during harvesting operations and minimize the impact on site preparation.
3. Reserved trees will provide sources of CWD recruitment.

Performance Std. (%)	-	Block Target (%):	-	Coarse Woody Debris(m ³ /ha):	-
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ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2018 11 13	YES
RPF PRINTED NAME	RPF'S SIGNATURE and SEAL	
Cam Forrester, RPF		
DATE SIGNED		
I certify that I have reviewed this document and, while I did not personally supervise the work described, I have determined that this work has been done to standards acceptable of a Registered Professional Forester.		