



TENURE IDENTIFICATION

AMENDMENT # 1

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
A94415	-	MK017-C3	BG5HJ	93O024-	FDU #4	Blackwater	55 16 32 / 123 20 03

AREA UNDER THE PLAN

GROSS AREA (TAUP)	PAS	NP	WTRA / WTP	RESERVES	OTHER	NAR
15.1	0.5	0.0	3.5	0.0	0.0	11.1

ADDITIONAL COMMENTS

DEFINITIONS (ADD DEFINITIONS AS REQUIRED)
The maximum percent Permanent Access Structures(PAS) indicated in the Soil Disturbance table is calculated as follows: Proposed PAS (lineal meters of road x 8m width)/10000/gross area.
The site plan is consistent with the approved BCTS Prince George Business Unit's Forest Stewardship Plan- December 5, 2015 - December 4, 2020, Amendment 15.

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	3.4
SU	CRITICAL SITE CONDITIONS THAT AFFECT THE TIMING OF OPERATIONS, AND HOW THEY AFFECT THE TIMING			
1	Harvesting will be conducted under appropriate conditions to ensure that the Max Allowable Soil disturbance limits will not be exceeded. Harvesting in frozen conditions is recommended due to clayey soils.			

RESULTS AND STRATEGIES

Biodiversity Objectives	
Result or Strategy Description	All FDU - 5.1.1.3.1 - Order Establishing Land Use Objectives Under Section 93.4 of the Land Act for the Purposes of FRPA November 21, 2006 (Prince George Timber Supply Area and Mackenzie Timber Supply Area). Order Establishing Land Use Objectives Under Section 93.4 of the Land Act for the Purposes of FRPA November 21, 2006 (Robson Valley Timber Supply Area).
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The harvest area included within this Site Plan is not within or adjacent to areas designated as Agricultural or Settlement Reserve areas. Proposed permanent access structures consist of approximately 3.4% of the gross area. The holder of this FSP will ensure that the permanent access structure in the block does not exceed 7% of the gross area. The maximum allowable soil disturbance on the net Area to be reforested is 5% for SU1.
Result or Strategy Description	All FDU - 5.1.2.5.1 - FPPR Section 9.1 and Section 12.5(1).
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	Stand level objectives have been met through the retention of approximately 3.5ha of wildlife tree retention area consisting of riparian buffers, hygric types and steep inoperable areas. This WTRA constitutes approximately 23.0% of the gross area, consistent with the FSP for a block over 15ha. The species within the retention area is comprised of trees of similar species, tree heights, and diameters of that which is being logged.
Result or Strategy Description	FDU 4 - 5.1.1.1.4 - Land Act Section 93.4 Order Establishing Non-Spatial Landscape Biodiversity Objectives in the Mackenzie Forest District dated May 1, 2008, and as amended on September 23, 2010.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The harvest area included in this Site Plan is consistent with the Order- Establishing Non-Spatial Landscape Biodiversity Objectives in the Mackenzie Forest District.
Result or Strategy Description	FDU 4 - 5.1.1.2.2 - Section 93.4 of the Land Act. Spatial Land Use Objectives for part of the Mackenzie Forest District Area, dated September 23, 2010.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The harvest area included in this Site Plan is consistent with the Order-Spatial Land Use Objectives in the Mackenzie Forest District Area. No Established OGMA's overlap this Site Plan area.

Result or Strategy Description	FDU 4 - 5.1.2.4.4 - FPPR Section 9 and Section 12.4. FPPR. Order Establishing Non-Spatial Landscape Biodiversity Objectives in the Mackenzie Forest District and amended, May 1, 2008 and Sept 23, 2010, respectively.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>Within the term of this FSP (December 5, 2015 to December 4, 2020), the result or strategy for this objective is the same as that set out in Section 5.1.1 Land Use Objectives (and support information) with the following addition:</p> <p>1. Subject to (a), harvest planning of cutblocks will achieve the NDT patch size distribution targets and minimum percentages, from the Mackenzie LRMP. BCTS is a participating licensee in the collaborative management of the Order Establishing Non-Spatial Landscape Biodiversity Objectives in the Mackenzie Forest District; as measured from the term of this FSP (December 5, 2015 to December 4, 2020). The holder of the FSP will produce a rationale if a block deviates from the targets and a strategy will be developed for how the objective will be achieved in the shortest time practicable.</p> <p>As per the Mackenzie Landscape Objectives Working Group (MK LOWG) Data and Cost Sharing Agreement with Respect to Landscape Biodiversity Analyses In the Mackenzie Timber Supply Area (2014), forest operations may result in deviations from any of the targets referred to in section 1 as necessary to address a forest health in stands damaged by forest pest or pathogen, fire, and windthrow events resulting in sanitation or salvage harvesting of infected or otherwise damaged timber.</p>
Result or Strategy Description	FDU 1 - 5.1.1.1.1 - Order Establishing Landscape Biodiversity Objectives for the Prince George Timber Supply Area (dated October 20, 2004) continued under section 93.8 of the Land Act.
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	N/A
Result or Strategy Description	FDU 1 - 5.1.1.2.1 - Dome and Slim Landscape Units - October 31, 2002; Humbug Landscape Unit - August 1, 2003. Continued under section 93.8 of the Land Act.
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	N/A
Result or Strategy Description	FDU 1 - 5.1.2.4.1 - FPPR Section 9 and Section 12.4.
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	N/A
Result or Strategy Description	FDU 2 - 5.1.1.1.2 - Order Establishing Provincial Non-Spatial Old Growth Objectives. June 30, 2004. Continued under section 93.8 of the Land Act.
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	N/A
Result or Strategy Description	FDU 2 - 5.1.2.4.2 - FPPR Section 9 and Section 12.4.
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	N/A
Result or Strategy Description	FDU 3 - 5.1.1.1.3 - Order Establishing Provincial Non-Spatial Old Growth Objective (June 30, 2004). Continued under section 93.8 of the Land Act.
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	N/A
Result or Strategy Description	FDU 3 - 5.1.2.4.3 - FPPR Section 9 and Section 12.4. FPPR Section 64 and 65 as of January 14, 2008
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	N/A
Result or Strategy Description	FDU 5 - 5.1.1.1.5 - Order Establishing Provincial Non-Spatial Old Growth Objectives. June 30, 2004 established under section 4(1) and (2) of the FPC. Draft Old Growth Management Areas (OGMA) identified for the South Trench Landscape Unit (LU), May 31, 2005 under section 8 of this order.
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	N/A
Result or Strategy Description	FDU 5 - 5.1.1.2.3 - Established under FPC 4(1) and (2) Order to Establish the Crescent Spur, Lower Morkill Cushing, Forgetmenot, Upper Morkill, North Trench and Goat Landscape Unit Objectives, January 30, 2006. Order to Establish the East Kinbasket, West Kinbasket, Hugh Allan, Foster and Dawson Landscape Unit Objectives, May 26, 2005. Order to Establish the Kiwa-Tete and Canoe Landscape Unit Objectives, January 30, 2006
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	N/A
Result or Strategy Description	FDU 5 - 5.1.2.4.5 - FPPR Section 9 and Section 12.4. Order Establishing Provincial Non-Spatial Old Growth Objectives. June 30, 2004
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	N/A

Cultural Heritage Resources	
Result or Strategy Description	All FDU - 5.1.2.7.1 - FPPR Section 10(a) and (b).
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>Due to high Arch potential within the block, Ecofor conducted an AOA in February2016 and found that an AIA was not required.</p> <p>The holder of this FSP will consult, as per the obligations of the Crown to consult, with the overlapping First Nation traditional territories (through use of the Consultative Area Database), thereby allowing them opportunity for input.</p> <p>Prior to harvest of a cutblock, construction or deactivation of a road, and silviculture activities; a cultural heritage resource evaluation will be conducted within areas that contain previously identified cultural heritage resources; or where site-specific information regarding cultural heritage resources is brought forward or made available to the holder of this FSP by First Nations, government employees or other individuals; or that are identified as having high potential based on Robson Valley, Prince George Forest District, and Mackenzie Forest District current draft archaeological overview assessment models being used within BCTS Prince George Business Area Operating Areas and awaiting approval from the appropriate agency of government.</p> <p>If a previously unidentified cultural heritage resource is encountered by the TSM or Agreement Holder while conducting a forest operation, operations will cease or be modified to protect the resource, until a cultural heritage resource evaluation can be carried out. Forest Operations will comply with Recommendations from Evaluations. Forest operations will comply with the recommendations given in a cultural heritage resource evaluation conducted under the above criteria.</p>
Recreation Resources	
Result or Strategy Description	FDU 4 - 5.1.3.4.1 - Recreation - Recreation Resources
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	Block is not within 100m of a known recreation site or trail. Site plan is consistent with FSP.
Result or Strategy Description	FDU 1, 2, 3, 5 - 5.1.3.3.1 - FRPA Section 181
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	N/A
Riparian Management	
Result or Strategy Description	All FDU - 5.1.2.3.1 FPPR Sections 8 and 12.3. Riparian Areas.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are several classified riparian features within or adjacent to the harvest area associated with this Site Plan. Retention is consistent with the FSP. Refer to support documents for further details.
Result or Strategy Description	FDU 1, 2, 3 - 5.1.3.2.1 - Lakeshore Management - No formal Lakeshore Management Zone objectives were established for any of these classified lakes, therefore no result or strategy is required in this FSP.
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	N/A
Result or Strategy Description	FDU 5 - 5.1.2.3.3 - Established under FPC 4(1), Order to Establish the East Kinbasket, West Kinbasket, Hugh Allan, Foster and Dawson Landscape Unit Objectives, May 26, 2005.
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	N/A
Soil Objectives	
Result or Strategy Description	All FDU - 5.1.2.1.1 - FPPR Section 5 and 12.2.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>The maximum Permanent Access Structure proposed for this block is approximately of3.4% of the gross block area resulting from proposed access sections of the TSED6100. Building only the amount of Permanent Access Structures that are proposed will ensure that the maximum allowable of7.0% will not be exceeded.</p> <p>Sections 35 and 36 of the FPPR are a result or strategy that applies to the holder of this FSP and to each Agreement Holder. Soil disturbance resulting from Primary Forest Activities not to exceed the maximum limit of 5% in SU1 excluding the Roadside Work Area, which has a maximum limit of25%.</p>
Visual Objectives	
Result or Strategy Description	FDU 4 - 5.1.2.6.1 - FPPR section 9.2.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The harvest area included in this Site Plan is not located within a scenic area.
Result or Strategy Description	<p>FDU 1, 2, 3, 5 - 5.1.3.1.1 - FDU 1 - Order for the Establishment of VQOs for the Prince George Forest District. December 7, 2005. Established under Section 7(2) of GAR.</p> <p>FDU 2 - FRPA Section 181.</p> <p>FDU 3 - FRPA Section 181, GAR Section 17.</p> <p>FDU 5 - FRPA Section 181, GAR Section 17.</p>
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	N/A

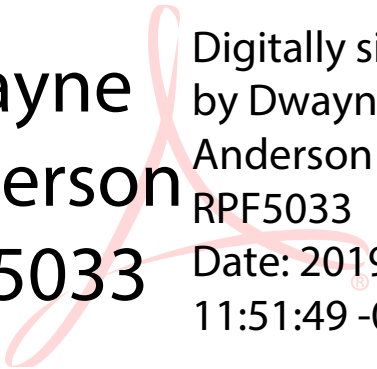
Wildlife Objectives	
Result or Strategy Description	<p>FDU 4 - 5.1.2.2.3 - FPPR Section 7:</p> <p>Notice A Indicators of the Amount, Distribution and Attributes of Wildlife Habitat Required for the Survival of Species at Risk in the Mackenzie Forest District. December 2004.</p> <p>Notice B Indicators of the Amount, Distribution and Attributes of Wildlife Habitat Required for the Winter Survival of Ungulate Species in the Mackenzie Timber Supply Area. December 2004.</p> <p>Order Ungulate Winter Range #U7-009. November 24, 2005</p>
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The harvest area of this Site Plan is not within or adjacent to UWR- 9 or an area covered by the 2008 Recovery Action Plan for Northern Caribou Herds in North-central BC. Site Plan is consistent with FSP.
Result or Strategy Description	<p>FDU 4 - 5.1.2.2.4 - Order Northern Caribou Ungulate Winter Range #U7-001. Original UWR order approved April 7, 2003 and subsequently amended on July 15, 2010 under GAR sections 9(2) and 12(1).</p> <p>Order Brewster Mountain Goat Ungulate Winter Range #U7-004. UWR order approved October 9, 2003 under OSPR sections 69(1) (a) and (b).</p> <p>Order Peace Arm Elk Ungulate Winter Range #U7-005. UWR order approved October 6, 2003 under OSPR sections 69(1) (a) and (b).</p> <p>Order Peace Arm Stone Sheep Ungulate Winter Range #U7-006. UWR order approved October 6, 2003 under OSPR sections 69(1) (a) and (b).</p> <p>Order Northern Caribou Ungulate Winter Range #U7-007. UWR order approved June 14, 2007 under GAR sections 9(2) and 12(1).</p> <p>Order Northern Caribou Ungulate Winter Range #U7-009. UWR order approved November 24, 2005 under GAR sections 9(2) and 12(1).</p> <p>Order Moose, Elk, and Mountain Goat Ungulate Winter Range #U7-017. UWR order approved December 12, 2008 under GAR sections 9(2) and 12(1).</p> <p>Order Northern Caribou and Stone Sheep Ungulate Winter Range #U9-004. UWR order approved May 20, 2008 under GAR sections 9(2) and 12(1).</p>
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This block does not fall into northern caribou ungulate winter range U7-001.
Result or Strategy Description	<p>FDU 1 and 2 - 5.1.2.2.1 - FPPR Section 7:</p> <p>Notice Indicators of the Amount, Distribution and Attributes of Wildlife Habitat Required for the Survival of Species at Risk in the Prince George Forest District December30, 2004.</p> <p>Order Wildlife Habitat Area #7-003 December 15, 2005</p>
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	N/A
Result or Strategy Description	<p>FDU 1, 2, 5 - 5.1.2.2.2 - Order Mule Deer Ungulate Winter Range #U5-001. UWR order approved February 20, 2007 under GAR sections 9(2) and 12(1).</p> <p>Order Mule Deer Ungulate Winter Range #U7-010. UWR order approved March 30, 2006 under GAR sections 9(2) and 12(1).</p> <p>Order Mule Deer Ungulate Winter Range #U7-011. UWR order approved October 6, 2003 under OSPR Section 69 (1) (a) and (b)</p> <p>Order Mule Deer Ungulate Winter Range #U7-013. UWR order approved November 26, 2003 under OSPR Section 69 (1) (a) and (b)</p> <p>AND:</p> <p>Order Mountain Caribou Ungulate Winter Range #U7-003. UWR order approved on December 9, 2009 under GAR sections 9(2) and 12(1).</p>
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	N/A
Result or Strategy Description	<p>FDU 5 - 5.1.2.2.5 - FPPR Section 7:</p> <p>Notice Indicators of the Amount, Distribution and Attributes of Wildlife Habitat Required for the Survival of Species at Risk in the Headwaters Forest District, December30, 2004</p>
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	N/A

STOCKING REQUIREMENTS

SU	NAR	STANDARDS ID #	OTHER PERFORMANCE STANDARDS
1	11.1	1039343	
COMMENTS	<p>SU1: Use the stocking standard of the SBSwk2-01 site series.</p> <p>A mixed species plant is recommended due to high potential for commonly occurring forest health problems with pine. Soils may experience frost heave, nutrient and moisture deficit, cold and wet soils due to presence of clay. This block is in a low drainage area which may experience summer frost, snow press damage, and cold air ponding. Plant spruce on raised microsites.</p>		

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2016 12 13	YES
1	2019 01 28	NO
Std Amendment Rationale:		Addition of Migratory Bird Strategy and removal of stubbed tree statement.

RPF PRINTED NAME	RPF'S SIGNATURE and SEAL
DWAYNE ANDERSON	 <div>Digitally signed by Dwayne Anderson RPF5033 Date: 2019.01.28 11:51:49 -08'00'</div>
DATE SIGNED	
2019/01/28	
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.	

Map attached forms an integral part of the site plan.

SUPPORT DOCUMENT

AMENDMENT # 1

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
A94415	-	MK017-C3	BG5HJ	93O024-	FDU #4	Blackwater	55 16 32 / 123 20 03

ASSESSMENTS

VISUAL IMPACT ASSESSMENT INFORMATION					
A Visual Impact Assessment was not required.					
PEST INCIDENCE SURVEY INFORMATION					
Pest Specific Comments					
The cruise compilation indicates that the average MPB infestation of pine in this TSL is100% grey attack and there were no observed SxB infestations in this block at the time of survey. A minor amount of other species insect damage was also noted in the cruise.					
Forest Health Comments					
Although a formal pest incidence survey was not required or completed, this block was identified and designed according to recce survey work for the identification and assessment of IBM and/or IBS damaged timber. If pine dwarf mistletoe is found to be present, fall all pine stems over3m; dwarf mistletoe was not found in the block at the time of survey.					
ARCHAEOLOGICAL IMPACT ASSESSMENT INFORMATION					
Due to high Arch potential within the block, Ecofor conducted an AOA in February2016 and found that an AIA was not required					
The holder of this FSP will consult, as per the obligations of the Crown to consult, with the overlapping First Nation traditional territories(through use of the Consultative Area Database), thereby allowing them opportunity for input. Prior to harvest of a cutblock, construction or deactivation of a road, and silviculture activities; a cultural heritage resource evaluation will be conducted within areas that contain previously identified cultural heritage resources; or where site-specific information regarding cultural heritage resources is brought forward or made available to the holder of this FSP by First Nations, government employees or other individuals; or that are identified as having high potential based on Robson Valley, Prince George Forest District, and Mackenzie Forest District current draft archaeological overview assessment models being used within BCTS Prince George Business Area Operating Areas and awaiting approval from the appropriate agency of government.					
If a previously unidentified cultural heritage resource is encountered by the TSM or Agreement Holder while conducting a forest operation, operations will cease or be modified to protect the resource, until a cultural heritage resource evaluation can be carried out. Forest Operations will comply with Recommendations from Evaluations. Forest operations will comply with the recommendations given in a cultural heritage resource evaluation conducted under the above criteria.					
TERRAIN STABILITY FIELD AND GULLY ASSESSMENTS INFORMATION					
Terrain Stability Comments					
No indicators of slope instability were observed during development. Steep slopes are adjacent to the block boundary.					
Gully Comments					
No gullies were noted in this block.					
VEGETATION					
Vegetation competition is not anticipated.					

RIPARIAN ASSESSMENTS					
Management Strategies					
Implementation of riparian management strategies provide for the conservation of riparian and aquatic environments, provide for critical habitats and serve to conserve water quality and quantity. Riparian classifications were assessed by Forsite Consulting Ltd. The streams, wetlands or lakes that may be affected by Primary Forest Activities associated with the harvest area are identified below along with the mitigative measures that will be taken to protect the riparian feature. Windthrow Hazard has been assessed as lowThe retention objectives for Water, Fish, Wildlife and Biodiversity in Riparian Areas outlined in the FSP have been met.					
R3-S3: This stream flows east into a large W1. Portions of the management zone projecting into the harvest area should be harvested in accordance with the harvest constraints indicated for SU1.					
R4-S6: This stream originate from an NCD on the west, and flows east into another NCD which eventually drains into a W1. Portions of the management zone projecting into the harvest area should be harvested in accordance with the harvest constraints indicated for SU1. The proposed road crosses this riparian feature, and will require the installation of a 600mm culvert.					
Riparian I.D. and Class	RMA	SU	WIDTH (m)	BA or SPH Retained	Comments (Indicate if in a Community Watershed)
R3 S3	RMZ	1	20.0		Portions of the RMZ located within the harvest area will be harvest as per SU1.
	RRZ	1	20.0		The RRZ is retained.
R4 S6	RMZ	1	20.0		Portions of the RMZ located within the harvest area will be harvest as per SU1. The proposed road crosses this feature, and will require the installation of a600mm culvert.

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	VH	M	M	0.0	46.0	SPG	
COMMENTS							
Soils consists of sandy clay loams and silty clay loams; compaction is rated as very high and erosion and displacement are rated as medium. Harvesting will be conducted under appropriate conditions to ensure that the Max Allowable Soil disturbance limits will not be exceeded.							
SU1: Dry or frozen soil conditions are recommended due to clayey soils.							

RESERVE / RETENTION INFORMATION

WTRA / WTP (INSIDE OR ATTRIBUTED TO THE BLOCK)						
I.D.#	Area	Description				
WTRA	3.5	Sx70BI20Pli10 - 119-109 - 33.2/30.2 - 21.4/I - 55 - 283(16)				
GROUP WTRA / WTP AND SITE DEG. CALCULATION (to be retained on the first block of the only)						
Block	Gross Cutblock Area	WTRA / WTP	%	BEC	Perm Access	%
Total # of Blocks:						

SUPPORTING INFORMATION

HLP/FSP CONSIDERATIONS
Wildlife/Endangered Species Comments
<p>The area covered by this Site Plan is not subject to a Ministerial Order or Notice issued under the Forest Planning and Practices Regulation(FPPR) in effect at the time the FSP was approved.</p> <p>The BC Ecosystem Explorer did not identify the potential for the presence of red or blue listed species or plant communities at risk. None were noted during the collection of field data.</p> <p>The Migratory Bird Strategy - TKA Final V2 spreadsheet was used in conjunction with the Migratory Bird Measures Applied document and the Guidance for Forest Sector Management of Nesting Migratory Birds in the Interior of British Columbia document currently being used by BCTS to perform a migratory bird assessment of the timber types verified by the official cruise, ensuring due diligence with respect to the nesting requirements of Migratory Birds that use the Timber Harvesting Land Base as Habitat. In the assessment, this block was rank3. As such, no further actions are needed.</p> <p>If any previously unidentified wildlife habitat features or bird nests are encountered during Primary Forest Activities or other block activities, work in the nearby vicinity must immediately stop and the Timber Sales Manager immediately notified. Before activities can proceed, an appropriate plan to manage the discovered feature must be determined. This should include consulting relevant legislation, Best Management Practices and/or qualified experts.</p>
Range Comments
There are no active range tenures within or adjacent to the site plan area.
Fisheries Comments
This block is not within an approved Fisheries Sensitive Watershed. No additional mitigation strategies to protect fisheries values beyond those contained within the approved FSP are required.
Watersheds/Hydro Assessments Comments
The area of the site plan is not within a community watershed, or within 100m upslope of a licensed waterworks within a community watershed.
Sensitive Areas Comments
The block is within potential karst areas. No karsts were noted at the time of development. No sensitive areas, other than those identified in other sections of this Support Document, have been identified in or adjacent to this block. The Site Plan is not within the Mugaha Marsh Sensitive area.
Recreation Comments
The block is not located within 200m of an established recreational area.
Cultural Heritage Comments
As described in the Supporting Information-Archaeological Impact Assessment section.
Biodiversity Emphasis/L.U. Comments
<p>Healthy immature hybrid white spruce, Douglas-fir, and subalpine fir; mature deciduous species and Douglas Fir trees should be retained where operationally feasible and safe to do so. Dispersed leave tree retention can supplement stocking, provide structural diversity, perching/nesting habitat and contribute to long-term coarse woody debris (CWD).</p> <p>Deciduous are a reserve species and all stems must be left standing regardless of size, health, vigour, or form unless their removal is required within the roadside work area or to comply with WCB regulations or to allow for operational maneuverability. If deciduous removal is necessary, stems must be dispersed across the harvest area and not left in bundles or decked at the roadside so it does not impede planting or create a fire hazard.</p>
Other Resources Comments
Trapper Reg #: TR0729T002 Stakeholders require notification prior to the commencement of Primary Forest Activities.
ADDITIONAL COMMENTS:

ADMINISTRATION

Amendment number	Date Typed(Yr Mo Dy)	Map Required?
ORIGINAL	2016 12 13	YES
1	2019 01 28	NO
Std Amendment Rationale:	Addition of Migratory Bird Strategy and removal of stubbed tree statement.	

HARVEST PLAN

AMENDMENT # 1

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
A94415	-	MK017-C3	BG5HJ	93O024-	FDU #4	Blackwater	55 16 32 / 123 20 03

SILVICULTURE SYSTEMS

SU	SYSTEM	VARIANT	PHASE	RESERVE	Min BA (m2/ha)	Min Residual Density (sph)
1	CCRES		REMOV	G		
Current Stand Structure/Site Conditions			Pli (SxBIAt) - 636			
Silviculture Systems SU Comments						
Min. Characteristics of Leave Trees (Form, Health, Vigour)			Healthy immature hybrid white spruce, Douglas-fir, and subalpine fir; mature deciduous species and Douglas Fir trees should be retained where operationally feasible and safe to do so. Dispersed leave tree retention can supplement stocking, provide structural diversity, perching/nesting habitat and contribute to long-term coarse woody debris (CWD). Deciduous are a reserve species and all stems must be left standing regardless of size, health, vigour, or form unless their removal is required within the roadside work area or to comply with WCB regulations or to allow for operational maneuverability. If deciduous removal is necessary, stems must be dispersed across the harvest area and not left in bundles or decked at the roadside so it does not impede planting or create a fire hazard.			

Additional Comments

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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	VH	M	M	5.0	5.0	3.4	25.0	0.0	46.0	Seepage	
SU	Critical site conditions that affect the timing of operations and how they affect the timing										
1	Harvesting will be conducted under appropriate conditions to ensure that the Max Allowable Soil disturbance limits will not be exceeded. Harvesting in frozen conditions is recommended due to clayey soils.										

SU MANAGEMENT COMMENTS	
SU	SU Description
1	SBSwk2 01(05)

SOIL MANAGEMENT COMMENTS	
Soil Conservation	
Soils consists of sandy clay loams and silty clay loams; compaction is rated as very high and erosion and displacement are rated as medium. Harvesting will be conducted under appropriate conditions to ensure that the Max Allowable Soil disturbance limits will not be exceeded. SU1: Dry or frozen soil conditions are recommended due to clayey soils.	
Temporary Access	
Temporary roads are not recommended for this block due to clay -dominated soils.	
Slope Instability	
No indicators of slope instability were observed during development. Steep slopes are adjacent to the block boundary.	

RIPARIAN ASSESSMENTS					
Management Strategies					
<p>Implementation of riparian management strategies provide for the conservation of riparian and aquatic environments, provide for critical habitats and serve to conserve water quality and quantity. Riparian classifications were assessed by Forsite Consulting Ltd. The streams, wetlands or lakes that may be affected by Primary Forest Activities associated with the harvest area are identified below along with the mitigative measures that will be taken to protect the riparian feature. Windthrow Hazard has been assessed as lowThe retention objectives for Water, Fish, Wildlife and Biodiversity in Riparian Areas outlined in the FSP have been met.</p> <p>R3-S3: This stream flows east into a large W1. Portions of the management zone projecting into the harvest area should be harvested in accordance with the harvest constraints indicated for SU1.</p> <p>R4-S6: This stream originate from an NCD on the west, and flows east into another NCD which eventually drains into a W1. Portions of the management zone projecting into the harvest area should be harvested in accordance with the harvest constraints indicated for SU1. The proposed road crosses this riparian feature, and will require the installation of a 600mm culvert.</p>					
Riparian I.D. and Class	RMA	SU	WIDTH (m)	BA or SPH Retained	Comments (Indicate if in a Community Watershed)
R3 S3	RMZ	1	20.0		Portions of the RMZ located within the harvest area will be harvest as per SU1.
	RRZ	1	20.0		The RRZ is retained.
R4 S6	RMZ	1	20.0		Portions of the RMZ located within the harvest area will be harvest as per SU1. The proposed road crosses this feature, and will require the installation of a600mm culvert.

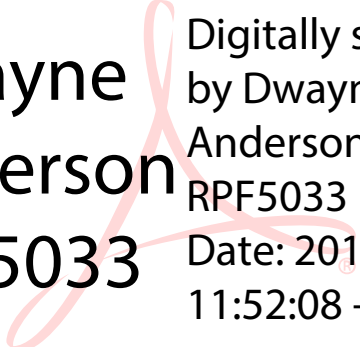
COARSE WOODY DEBRIS MANAGEMENT STRATEGY INFORMATION		
<p>Management strategies for CWD should not compromise close utilization standards or fire hazard abatement. In accordance with this, the retention of mature leave trees and dispersed stubs, existing CWD, non-merchantable logs and WDPs will contribute to long-term CWD objectives.</p> <p>Post harvest CWD target levels for this block are:</p> <p>A minimum of 4 logs/ha must be retained across the block. As per Sec. 68(1b) of the FPPR, a "log" is defined as being a minimum of2.0m long and 7.5cm diameter at one end. Normal harvest operations that retain a variety of piece sizes made up of naturally occurring CWD, stubbed snags and scattered non-merchantable logs will meet this objective without significantly impacting waste and revenue utilization standards.</p> <p>CWD retention should be dispersed throughout the harvest area to manage levels consistent with the site prior to harvest.</p>		
Performance Std. (%) :	Block Target(%):	Coarse Woody Debris (m3/ha):

DEFINITIONS

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2016 12 13	YES
1	2019 01 28	NO
Std Amendment Rationale:	Addition of Migratory Bird Strategy and removal of stubbed tree statement.	

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
DWAYNE ANDERSON	<div>Digitally signed by Dwayne Anderson RPF5033 Date: 2019.01.28 11:52:08 -08'00'</div>
DATE SIGNED	
2019/01/28	
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.	

SILVICULTURE PLAN

AMENDMENT # 1

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
A94415	-	MK017-C3	BG5HJ	93O024-	FDU #4	Blackwater	55 16 32 / 123 20 03

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	11.1	SBS	wk	2	01-90 05-10	920	10	V	Middle Slope	45	SCL

STOCKING REQUIREMENTS				
ASSESSMENT DATES				
Standard Unit	Standards ID	Regen Delay (yrs)	Freegrow Early (yrs)	Freegrow Late (yrs)
1	1039343	4		20
Min/Max Elevation Regime: 900 / 940				

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											
Sx	Hybrid Spruce (SE x SW)	1.0		Bl	Subalpine Fir	1.0		WELL SPACED TREES(sph)													
								Target Pref/Acc		Minimum Pref/Acc		Minimum Pref		Min Horizontal Dist. Pref/Acc (m)							
								1200		700		600		1.6							
												Height Relative to Competition (%)									
												150									
Pli											Lodgepole Pine - Interior										

OTHER REQUIRED STOCKING INFORMATION
SU1: Use the stocking standard of the SBSwk2-01 site series.
A mixed species plant is recommended due to high potential for commonly occurring forest health problems with pine. Soils may experience frost heave, nutrient and moisture deficit, cold and wet soils due to presence of clay. This block is in a low drainage area which may experience summer frost, snow press damage, and cold air ponding. Plant spruce on raised microsites.

ACTIVITIES

BRUSHING / STAND TENDING	
BR (Default) 2027/01/31	
AREA	TECHNIQUE(S) / LIMITING FACTOR

SILVICULTURE ACTIVITY COMMENTS	
ACTIVITY	COMMENT

MANAGEMENT STRATEGY

COARSE WOODY DEBRIS MANAGEMENT STRATEGY INFORMATION
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RPF PRINTED NAME	RPF'S SIGNATURE and SEAL
DWAYNE ANDERSON	<div><div>Dwayne Anderson RPF5033</div><div>Digitally signed by Dwayne Anderson RPF5033 Date: 2019.01.28 11:52:24 -08'00'</div></div>
DATE SIGNED	
2019/01/28	
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.	