



TENURE IDENTIFICATION

ORIGINAL

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
A93319	-	Jl8PJ	BE8PJ	92P-068-530		Windy Creek	51 37 12 / 120 33 38

AREA UNDER THE PLAN

GROSS AREA (TAUP)	PAS	NP	WTRA / WTP	RESERVES	OTHER	NAR
34.7	1.8	0.0	4.9	0.0	0.0	28.0

ADDITIONAL COMMENTS

DEFINITIONS (ADD DEFINITIONS AS REQUIRED)
<p>This Site Plan covers block Jl8PJ and roads MH R21300.03 and MH Jl8PJ.01, and is consistent with the BCTS Kamloops Business Area, 100 Mile House TSA Forest Stewardship Plan approved March 31, 2007, extension approved March 31, 2012, subsequent amendments to April 1, 2014 and new term renewal from April 1, 2017 ending October 30, 2018 and further extension until December 31, 2018.</p> <p>This Site Plan is consistent with the FSP Results and Strategies as of March 30, prior to the May 2019 FSP Extension Conditions.</p> <p>This Site Plan is prepared for this block and its associated roads in accordance with FRPA Section 10 (1), (2) & (3).</p>

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	10.0	5.0	25.0	7.0
SU	CRITICAL SITE CONDITIONS THAT AFFECT THE TIMING OF OPERATIONS, AND HOW THEY AFFECT THE TIMING			
1	None noted at time of development.			

RESULTS AND STRATEGIES

RESULT OR STRATEGY		HOW THE STRATEGY OR RESULT APPLIES TO THE SITE or RATIONALE (IF NOT APPLIED)
Cultural Heritage		<p>Obj. 1.15 - This development has been referred to all potentially affected First Nations.</p> <p>If a previously unidentified affected cultural heritage resource is encountered during harvesting, road construction, or mechanical site preparation, the operations must cease to the extent necessary to protect the affected cultural heritage resource until a cultural heritage resource evaluation can be carried out.</p>
Invasive Plants		<p>Obj 1.16.2.1- A review of the known location of invasive plants on the Invasive Alien Plant Program (IAPP) database indicates that there are no incidents of invasive plants located within 4 km of the opening.</p> <p>Preventative measures for controlling the introduction of invasive species will be implemented throughout development, as below:</p> <p>1) Within one year of harvesting completion, contiguous areas of disturbed soil >/=0.25 ha, including areas occupied by ditch-lines, cut or fill slopes, and deactivated roads which are not reforested (except for active running surface) are revegetated with:</p> <p>a) Seed or forage mixture that meets or exceeds Canada Common #1 Forage Mixture as defined by the Canada Seeds Act & Regulation; or</p> <p>b) Native forbs or shrubs.</p> <p>2) Report new invasive plant infestation sites to the Ministry of Forests, Lands, Natural Resource Operations and Rural Development within one year of discovery.</p> <p>3) Licensees and contractors are to be informed about methods for preventing the spread of invasive plants, such as inspecting and cleaning off machinery after use in high risk areas.</p>
Landscape Level Biodiversity		<p>This block lies within the Canim Lake FDU (E8 Canim ERDZ).</p> <p>Obj 1.11.1.1 - This block has a NAR of 28.0ha and is not adjacent to any existing cutblocks. This block is consistent with section 64 of the FPPR, section 65 is not applicable.</p> <p>Obj 1.11.1.2- This opening is in the Canim Lake LU, NDT3_ESSFdc3_na which meets the Old and Mature objective based on the most recent assessment (August 2019). This assessment shows a surplus of 4,545ha for M+O, and a surplus of 2,078ha for Old. This block consists of age class 5 and therefore does not apply to the seral stage distribution requirements of the CCLUP.</p> <p>This opening is not in the immediate vicinity of any OGMAs.</p> <p>Obj 1.11.1.3 - addressed by obj 1.11.1.2.</p> <p>Obj 1.11.1.4 - addressed by objs 1.13.1 & 1.13.6.1 (Wildlife/Endangered Species).</p> <p>Obj 1.11.1.8 - addressed by obj 1.10.1.1 (Riparian Management).</p>
Other Resources		<p>Obj 1.18.1- Conventional harvesting methods used in this block will help to achieve the timber targets for the Canim Sub-unit. The Results and Strategies for Obj. 1.10.1, 1.11.2, 1.13, 1.14, and 1.17 have also been applied to help meet this target.</p>
Range		<p>Obj. 1.16.1 - Harvesting this block will not remove or render ineffective any natural range barriers.</p> <p>Obj. 1.16.3.1 - This development does not overlap any active range tenure.</p> <p>Obj. 1.16.3.2 - There are no existing range fences within the block.</p> <p>Obj.1.16.3.3 - It is unknown if the current authorized level of AUMs of 3,055 in the Canim Lake FDU is being maintained.</p>

Recreation		<p>Obj 1.12.1.1 - No known recreation trails with established objectives are associated with this opening.</p> <p>Obj 1.12.1.2 - Addressed by obj 1.12.1.1, obj. 1.12.2.8, obj 1.13.3.1 (Ungulate Winter Range), and obj 1.17.1 (Wildcraft & Access Management).</p> <p>Obj 1.12.2.1 - No known issues with regards to timing of harvest from recreation users.</p> <p>Obj 1.12.2.8 - This opening is not located within the area of Big Timothy Mountain or adjacent to any key lakes.</p>
Riparian Management		<p>Obj 1.10.1.1, 1.10.1.3 - Listed below are the riparian features associated with the opening as well as management strategies for each feature.</p> <p>Jl8PJ-1-S6 and Jl8PJ-2-S6 are all located within proposed WTRAs. The majority of their RMZs have been encompassed within the WTRAs, any RMZ overlap within the harvest area will be treated the same as the remainder of the block.</p> <p>Jl8PJ-1-S3 occurs north of the harvest boundary. The boundary has been placed >/=25m (averaging 50m) away from the stream edge, resulting in >/=25% Basal Area retention within the RMZ. Any RMZ overlap within the harvest area will be treated the same as the remainder of the block.</p> <p>Obj 1.10.1.2 - This opening does not overlap a lakeshore management zone.</p> <p>Obj 1.10.1.8 - Addressed by obj 1.10.1.1, 1.10.1.3, obj 1.11.1.2 (Stand Level Biodiversity), obj 1.13.1, 1.13.2.1, 1.13.2.2, 1.13.2.3, 1.13.4.1, 1.13.5.1, 1.13.6.1, and 1.13.8.1 (Fish and Wildlife).</p> <p>Obj 1.10.1.9, 1.10.1.10, 1.10.1.11, 1.10.1.12 - Addressed by obj 1.10.1.1.</p> <p>Obj 1.10.1.14 - Addressed by obj 1.9.2.1 (General Water Resources) and obj 1.10.1.1.</p>
Soil Management		<p>Obj 1.8.1 - There is a high compaction hazard within SU1, therefore the allowable soil disturbance level will be 10%. There is approximately 1,780m of permanent access proposed within the opening. PAS is calculated at 5.1% of the gross area.</p> <p>Proposed Temporary Access (TAS) is calculated at 2.2% of the NAR. The licensee is responsible for ensuring the maximum soil disturbance limit is not exceeded (10% of the NAR).</p> <p>Recommend using a random skidding pattern and avoid skidding across depressional areas when wet.</p> <p>This block is consistent with section 35 & 36 of the FPPR.</p>
Stand Level Biodiversity		<p>Obj 1.11.2.1 - There are 7 wildlife tree retention areas (WTRA) associated with this block, accounting for 14.2% of the gross block area, and therefore exceeding the FSP listed wildlife tree retention target for the ESSFdc2 in the Canim Lake LU of 7%. This opening is consistent with the FSP.</p> <p>The 100 Mile House Forest District Retention Strategy's Best Management Practices have been considered in the development of the opening and were applied where opportunities were available at the stand level.</p>
Visual Objectives		<p>Obj 1.14.1- There are no scenic areas with visual quality objectives associated with this opening.</p> <p>Obj 1.14.9- The opening is not within or adjacent to a key lake.</p> <p>Obj 1.14.14 - Addressed by obj 1.14.1 & 1.14.9.</p> <p>Obj 1.14.16- This opening is designed to minimize visual impact by following natural features, terrain and timber types. The rolling terrain and lengthy viewing distance minimizes impact.</p> <p>Obj 1.14.17- This opening is not within or adjacent to a scenic corridor.</p>
Watersheds/Hydro Assessments		<p>Obj 1.9.2.1 - This block falls within the Jim Creek sub-basin of the Mahood Lake watershed; neither of which are a community watershed, nor considered to be a key watershed under the 100 Mile House FSP. A formal ECA calculation or watershed assessment has not been undertaken; however, the Canim Lake Band's FSRP provided an update to a 2008 Risk Rating Report, indicating an ECA of 33%. The Risk Rating report considers this watershed to have an overall hydrological risk rating of Low.</p>
Wildcraft and Access Management		<p>Obj 1.17.1- There are currently no assessments available to confirm that this opening is maintaining the 80% target of roaded access for wildcraft activities in the Canim FDU.</p>
Wildlife/Endangered Species		<p>Obj 1.13.1 - addressed by obj 1.10.1.1, 1.10.1.3, 1.10.1.8, 1.10.1.9, 1.10.1.10, 1.10.1.11, 1.10.1.12, 1.10.1.14 (Riparian Management), obj 1.11.1.1, 1.11.1.2, 1.11.1.3, 1.11.1.4, 1.11.1.8 (Landscape Level Biodiversity), obj 1.11.2.1 (Stand Level Biodiversity), obj 1.13.2.1, 1.13.2.2, 1.13.2.3, 1.13.3.1, 1.13.3.2 1.13.4.1, 1.13.4.2, 1.13.4.3, 1.13.4.4 (Ungulate Winter Range), obj 1.13.5.1 (Furbearers), obj 1.13.6.1 (SAR), and obj 1.13.8.1, 1.13.8.2, 1.31.8.3 (Grizzly Bear).</p> <p>Obj 1.13.1.1 - This opening is not within the Horsefly River watershed.</p> <p>Obj 1.13.1.7 - This opening will not affect the lakes listed in this Result or Strategy.</p> <p>Obj 1.13.1.8 - There are no critical fish habitat areas located within or adjacent to this opening.</p> <p>Obj 1.13.2.1, 1.13.2.2, 1.13.2.3 - This opening is not within an established WHA.</p> <p>Obj 1.13.3.1, 1.13.3.2 - This opening is not within or adjacent to a Mule Deer Winter Range.</p> <p>Obj 1.13.4.1, 1.13.4.2, 1.13.4.3, 1.13.4.4 - addressed by obj 1.10.1.1 (Riparian Management), obj 1.11.1.2, 1.11.1.5 (Landscape Level Biodiversity). A generous buffer has been retained on the classified streams associated with this opening. Roads will be deactivated once harvesting and primary silviculture activities are completed.</p> <p>Obj 1.13.5.1 - addressed by obj 1.10.1.1 (Riparian Management), obj 1.11.1.2 (Landscape Level Biodiversity).</p> <p>Obj 1.13.6.1 - A search of BC Species and Ecosystems Explorer indicated 7 Red and Blue designated species within the ESSF biogeoclimatic zone within the 100 Mile House Forest District in Forest, Riparian and Subterranean habitats. These species are: Cariboo (southern mountain population), American Badger, Olive-sided Flycatcher, Wolverine, Barn Swallow, Rusty Blackbird and Grizzly Bear. There were no signs of any of these species noted during block development.</p> <p>There is one known Ecological Communities at Risk identified within the ESSFdc3 biogeoclimatic zone in the 100 Mile House Forest District. The scrub birch/water sedge community was not noted during field development.</p> <p>Obj 1.13.8.1, 1.13.8.2, 1.13.8.3 - This opening is not within or adjacent to a grizzly bear unit.</p>

STOCKING REQUIREMENTS

SU	NAR	STANDARDS ID #	OTHER PERFORMANCE STANDARDS
1	28.0	1020903	SE - limited by growing-season frosts. MITD may be reduced to 1.6m where planting takes place on hydric, sub-hydric or mechanically site prepared sites. Max. density will be 25,000 stems per hectare where stands are greater than 80% pine by stem count, otherwise max. density will be 10,000 stems per hectare.
COMMENTS	This block is mapped within the ESSFdc3 biogeo zone; however, the applicable FSP does not have any stocking standards for the dc3 subzone (as well, LRM does not have any listed site series options under ESSFdc3), therefore the dc2 subzone was used to populate the silvicultural information (Ecological Info and Stocking Requirements).		

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2019 08 26	YES

RPF PRINTED NAME		RPF'S SIGNATURE and SEAL	
SARAH REMPEL			
DATE SIGNED			
2019/08/26			
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.			
DISTRICT MANAGER NAME	DATE SIGNED	DISTRICT MANAGER SIGNATURE	

Map attached forms an integral part of the site plan.

SUPPORT DOCUMENT

ORIGINAL

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
A93319	-	JI8PJ	BE8PJ	92P-068-530		Windy Creek	51 37 12 / 120 33 38

ASSESSMENTS

VISUAL IMPACT ASSESSMENT INFORMATION
The block is not within a visually sensitive area. A visual impact assessment is not required. Please refer to Results and Strategies section.
PEST INCIDENCE SURVEY INFORMATION
Pest Specific Comments
IBM: A significant component of the PI is grey attack. IDE: Approximately 20% of the mature BI and 50-70% of the BI regen shows signs of infection.
Forest Health Comments
Aside from the high incidence of MPB (grey attack) in the stand, it was also noted that a large pecentage of the mature Balsam composition was dead. In addition, the regen layer in the understory was being killed, or starting to die from the leaders, down. It is expected that the Spruce budworm has infected a large majority of the regen stems within the area.
ARCHAEOLOGICAL IMPACT ASSESSMENT INFORMATION
Refer to the Results and Strategies section.
TERRAIN STABILITY FIELD AND GULLY ASSESSMENTS INFORMATION
Terrain Stability Comments
No slope instability indicators were noted. Terrain within this block is rolling with slopes up to 50%. Slopes greater than 50% have been removed from the harvest area. A TSFA is not required.
Gully Comments
N/A
VEGETATION
No significant competition during regeneration establishment is anticipated.

RIPARIAN ASSESSMENTS					
Management Strategies					
Maintain natural drainage patterns. Refer to the 'Riparian Management' comments in the Results and Strategies section. MFZ = Machine Free Zone RRZ = Riparian Reserve Zone RMZ = Riparian Management Zone					
Riparian I.D. and Class	RMA	SU	WIDTH (m)	BA or SPH Retained	Comments (Indicate if in a Community Watershed)
JI8PJ-1-S3 S3	RMZ		20.0		Located north of the harvest boundary. The boundary has been placed >/=25m (averaging 50m) away from the stream edge, therefore the total RRZ and a portion of the RMZ have been excluded from the harvest area. Any RMZ that overlaps within the harvest area is to be treated the same as the remainder of the SU.
	RRZ		20.0		
JI8PJ-1-S6 S6	MFZ		5.0		Stub the MFZ boundary every 5-10m at 3-5m in height.
	RMZ		20.0		This feature occurs within the eastern portion of the boundary. The majority of the stream and its RMZ is encompassed within WTRA 5. The short section of stream within the harvest area has been buffered with a 5m MFZ. Any RMZ overlap within the harvest area is to be treated the same as the remainder of the SU.
JI8PJ-2-S6 S6	MFZ		5.0		Stub the MFZ boundary every 5-10m at 3-5m in height.
	RMZ		20.0		This feature occurs within the eastern portion of the boundary. The majority of the stream and its RMZ is encompassed within WTRAs 6 & 7. The short section of stream within the harvest area has been buffered with a 5m MFZ. Any RMZ overlap within the harvest area is to be treated the same as the remainder of the SU.

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	H	L			NNTD	
COMMENTS							
<p>Soils within this block are predominantly non-sensitive (sandy-loam). The maximum soil disturbance limit is set at 10% of the NAR.</p> <p>Roads MH R21300.03 and MH 5289.12 are proposed as permanent access structures (PAS) within the block. PAS is calculated at 5.1% of the gross area.</p> <p>Temporary access (TAS) is currently calculated at 2.2% of the NAR.</p> <p>The licensee is responsible for ensuring the maximum soil disturbance limit is not exceeded (10% of the NAR).</p> <p>The proposed TAS will be rehabilitated upon harvest completion.</p> <p>All access structures will be managed to ensure natural drainage patterns are maintained and erosion measures are installed prior to spring freshet.</p> <p>Recommend using a random skidding pattern and avoid skidding across depressional areas when wet.</p> <p>This block is consistent with section 35 & 36 of the FPPR.</p>							

RESERVE / RETENTION INFORMATION

WTRA / WTP (INSIDE OR ATTRIBUTED TO THE BLOCK)							
I.D.#	Area	Description					
WTRA	4.9	WTRA 1, 2 & 3 - BiSe(Pli) 624-0/12; PliBi(Se) 522-0/14 - These WTRAs have been established to provide structural diversity, visual cover for wildlife and retention of timber on steep slopes >50%.					
		WTRA 4 - PliBi(Se) 522-0/14 - This WTRA has been established around an area of high saturation associated with a depression within the north portion of the block.					
		WTRA 5, 6 & 7 - SeBi 945-0/11 - These WTRAs have been established to provide structural diversity, visual cover for wildlife and provide a buffer around classified stream systems JI8PJ-1-S6 and JI8PJ-2-S6.					
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	%	
JI7RY	10.9	1.8	16.5	ESSF/dc/2	0.5	4.8	
JI8PF	8.0	1.5	19.1	SBS/mc/1	0.1	1.8	
JI8PH	27.5	8.2	29.7	SBS/mc/1	0.7	2.4	
JI8PJ	34.7	4.9	14.2	ESSF/dc/2	1.8	5.1	
Total # of Blocks: 4	81.1	16.4	20.3		3.1	3.8	

SUPPORTING INFORMATION

HLP/FSP CONSIDERATIONS
Wildlife/Endangered Species Comments
<p>The design of this harvest area considered Migratory Bird Habitat polygons and the Beneficial Management Practices as outlined in the BCTS Migratory Bird Strategy (2016).</p> <p>The majority of the block is mapped within a Moderately High (Rank 4) polygon with a portion of the southeast boundary within a Moderate (Rank 3) polygon. The following BMPs have been applied to this block to reduce incidental take: Riparian Protection (LO2; DoP2), Unmarked Retention (LO3; DoP2), Stub Retention (LO4; DoP1,2) and Planned Retention (PL2; DoP2).</p> <p>If a previously unidentified migratory bird nest is encountered during harvesting, road construction, or a silviculture activity associated with this Site Plan, the operations are required to cease to the extent necessary to protect the affected migratory bird nest until alternative BMPs can be implemented to minimize or prevent the risk of incidental take.</p>
Range Comments
<p>Active Range Tenure: None</p> <p>Refer to Results and Strategies section.</p>
Fisheries Comments
<p>There are no fish bearing riparian features within block. An S3 stream channel occurs >= 20m (average 50m) from the north harvest boundary.</p> <p>Forestry activities are not expected to impact the fisheries resource.</p> <p>Please refer to Results and Strategies section.</p>
Watersheds/Hydro Assessments Comments
<p>This block is located within the Jim Creek watershed, which is not a community watershed.</p> <p>Refer to Results and Strategies section.</p>
Sensitive Areas Comments
<p>There is one known red listed ecological area within the ESSF dc3 in the 100 Mile Forest District: scrub birch/water sedge.</p> <p>Refer to Results and Strategies section.</p>
Recreation Comments
<p>There are no known recreational areas or trails within or adjacent to this opening.</p> <p>Refer to Results and Strategies section.</p>
Cultural Heritage Comments
<p>No additional management strategies apply to the development above the Results and Strategies contained in the Site Plan for this block.</p>
Biodiversity Emphasis/L.U. Comments
<p>Landscape Unit: Canim Lake; Biodiversity Emphasis Option: Low; WTRA target: 7%</p> <p>There are no OGMA polygons within or immediately adjacent to this development.</p> <p>Refer to the Results and Strategies section.</p>
Other Resources Comments
<p>Trapper: This block overlaps an active trapline (TR0501T006). BC Timber Sales has referred this development to the trapline tenure holder. The requests and recommendations forwarded by the Trapper regarding the development have been addressed and applied in the field. No special management has been prescribed.</p> <p>Guide Outfitter: Certificate #500940; Chris Condie. The guide had no specific comments regarding the development.</p> <p>Mineral: Title # ID. 1061069 and 1034290</p>

ADDITIONAL COMMENTS:
Surveys
Estimated windthrow potential, as assessed using the Ministry of Forests, Lands, Natural Resource Operations and Rural Development Windthrow Field Card Assessment Page A, is Moderate. Since layout operations in Fall 2016 through Fall 2017, a large wind event occurred and caused extensive blowdown throughout the stand, as field confirmed during cruising efforts in Fall 2018.

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2019 08 26	YES

HARVEST PLAN

ORIGINAL

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
A93319	-	JI8PJ	BE8PJ	92P-068-530		Windy Creek	51 37 12 / 120 33 38

SILVICULTURE SYSTEMS

SU	SYSTEM	VARIANT	PHASE	RESERVE	Min BA (m2/ha)	Min Residual Density (sph)
1	CCRES		SALVP	D		
Current Stand Structure/Site Conditions			<p>The current stand consists of 41% PI, 32% Sx, 22% BI and 4% Fdi. Net merchantable volume of the stand is estimated to be 280m3/ha, prior to reductions, with an average stand height of 26.1m. The majority of the PI has been impacted by MPB (all grey attack) and evidence of beetle attack is present in the dead stems of Sx and BI.</p> <p>In addition, the BI regen has been severely impacted by a spruce budworm outbreak and are showing signs of mortality from the leader/terminal ends of the regen branches. Advanced regen consists almost entirely of BI (200-500 sph) in the xeric and mesic areas of the block, and is predominantly Sx (100-300 sph) in the submesic areas. Blowdown is moderate throughout the block.</p>			
Silviculture Systems SU Comments						
Min. Characteristics of Leave Trees (Form, Health, Vigour)			<p>For entire block:</p> <p>Aspen: 90% retention of all live merch; which equates to approx. 7 sph as per the cruise. Douglas-fir: 90% retention of all live merch; which equates to approx. 5 sph as per the cruise. Cottonwood: 90% retention of all live merch; there was no Ac recorded during the cruise.</p> <p>With the exception of PI regen >50cm in height, retain conifer regen, saplings and poles to the extent practicable where they occur in patches.</p> <p>Residual stems should be in moderate to good form and vigor, and free of defects and disease. The purpose of these stems is to provide wildlife habitat and structural diversity within the stand.</p> <p>Stubbing: All MFZ boundaries are to be stubbed every 5-10m at 3-5m in height to identify their locations post-harvest.</p>			

Additional Comments

Harvesting Constraints	<p>SAFETY Overhead hazards - snags and dead and broken tree tops exist across the block. Moderately high blowdown within the block. Slopes >35% exist within the block. See block map for locations.</p> <p>ARCHAEOLOGICAL / CULTURAL HERITAGE If a previously unidentified affected Cultural Heritage Resource is encountered during harvesting, road construction or mechanical site preparation, operations are to cease to the extent necessary to protect the affected cultural heritage resource until a Cultural Heritage Resource Evaluation can be completed.</p> <p>SLOPES Slopes throughout the block generally range from 0-40% with an average of 30%. A few short pitches up to 50% were noted in areas of the block - see block map for locations.</p> <p>SOILS Compaction hazard is high within the block; maximum soils disturbance limit is 10% of the NAR. The licensee is responsible for ensuring soil disturbance does not exceed the limit. Avoid skidding across depressional areas when wet; recommend using a random skidding pattern. Maintain natural drainage patterns.</p> <p>MIGRATORY BIRDS If a previously unidentified migratory bird nest is encountered during harvesting, road construction, or a silviculture activity associated with this Site Plan, operations must cease to the extent necessary to protect the affected migratory bird nest until alternative BMPs can be implemented to minimize or prevent the risk of incidental take.</p> <p>FOREST HEALTH Lodgepole pine stems >50cm in height will be eradicated in effort to minimize future mistletoe infestations.</p> <p>HARVEST INFORMATION This block is appropriate for conventional roadside/landing harvest (i.e. rubber tired skidder, mechanical falling).</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	H	H	L	10.0	5.0	7.0	25.0			None Noted	
SU	Critical site conditions that affect the timing of operations and how they affect the timing										
1	None noted at time of development.										

SU MANAGEMENT COMMENTS	
SU	SU Description
1	This SU has rolling terrain with slopes up to 50%. The stand is comprised predominantly of Spruce and Balsam, with a moderate component of Lodgepole Pine, and a minor component of Douglas-fir, Aspen and Cottonwood. The pine is heavily impacted by mountain pine beetle, with 30-50% of it being deadfall.
SOIL MANAGEMENT COMMENTS	
Soil Conservation	
<p>Soils within this block are predominantly non-sensitive (sandy-loam). The maximum soil disturbance limit is set at 10% of the NAR.</p> <p>Roads MH R21300.03 and MH 5289.12 are proposed as permanent access structures (PAS) within the block. PAS is calculated at 5.1% of the gross area.</p> <p>Temporary access (TAS) is currently calculated at 2.2% of the NAR.</p> <p>The licensee is responsible for ensuring the maximum soil disturbance limit is not exceeded (10% of the NAR).</p> <p>The proposed TAS will be rehabilitated upon harvest completion.</p> <p>All access structures will be managed to ensure natural drainage patterns are maintained and erosion measures are installed prior to spring freshet.</p> <p>Recommend using a random skidding pattern and avoid skidding across depressional areas when wet.</p> <p>This block is consistent with section 35 & 36 of the FPPR.</p>	
Temporary Access	
<p>One temporary access structure (TAS), with a temporary landing, is proposed within the block.</p> <p>All temporary structures must be rehabilitated upon harvest completion, or at least prior to the spring freshet.</p> <p>Rehabilitation and decompaction efforts will be as follows: de-compact roadbed and return displaced surface soils, retrievable side-cast and berm material to the extent practicable and necessary to establish and grow trees consistent with the stocking standards. Erosion control measures are required to maintain natural drainage patterns.</p>	
Slope Instability	
<p>No slope instability indicators were noted. Terrain within this block is rolling with slopes up to 50%. Slopes greater than 50% have been removed from the harvest area. A TSFA is not required.</p>	

RIPARIAN ASSESSMENTS					
Management Strategies					
Maintain natural drainage patterns. Refer to the 'Riparian Management' comments in the Results and Strategies section. MFZ = Machine Free Zone RRZ = Riparian Reserve Zone RMZ = Riparian Management Zone					
Riparian I.D. and Class	RMA	SU	WIDTH (m)	BA or SPH Retained	Comments (Indicate if in a Community Watershed)
J18PJ-1-S3 S3	RMZ		20.0		Located north of the harvest boundary. The boundary has been placed >/=25m (averaging 50m) away from the stream edge, therefore the total RRZ and a portion of the RMZ have been excluded from the harvest area. Any RMZ that overlaps within the harvest area is to be treated the same as the remainder of the SU.
	RRZ		20.0		
J18PJ-1-S6 S6	MFZ		5.0		Stub the MFZ boundary every 5-10m at 3-5m in height.
	RMZ		20.0		This feature occurs within the eastern portion of the boundary. The majority of the stream and its RMZ is encompassed within WTRA 5. The short section of stream within the harvest area has been buffered with a 5m MFZ. Any RMZ overlap within the harvest area is to be treated the same as the remainder of the SU.
J18PJ-2-S6 S6	MFZ		5.0		Stub the MFZ boundary every 5-10m at 3-5m in height.
	RMZ		20.0		This feature occurs within the eastern portion of the boundary. The majority of the stream and its RMZ is encompassed within WTRAs 6 & 7. The short section of stream within the harvest area has been buffered with a 5m MFZ. Any RMZ overlap within the harvest area is to be treated the same as the remainder of the SU.

COARSE WOODY DEBRIS MANAGEMENT STRATEGY INFORMATION					
Current coarse woody debris levels are high. Post harvest CWD target is 10m3/ha. The licensee must retain a minimum of 4 logs per hectare, each being a minimum of 2m in length and 7.5cm in diameter at one end. Non-merchantable log grades (firmwood rejects and some dry grade 4) will be left on site. Reserved stems will contribute to future CWD. Any reserve trees that blow down will be left as CWD 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. Efforts will be made to ensure these logs are not broken at time of harvesting. Logs may consist of a variety of species and shall be evenly distributed across the cutblock. This cutblock is consistent with section 68 of the FPPR.					
Performance Std. (%) :	100.0	Block Target (%) :	100.0	Coarse Woody Debris (m3/ha):	10.0

DEFINITIONS

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2019 08 26	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			
SARAH REMPEL					
DATE SIGNED					
2019/08/26					
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.					
DISTRICT MANAGER NAME		DATE SIGNED	DISTRICT MANAGER SIGNATURE		

SILVICULTURE PLAN

ORIGINAL

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
A93319	-	J18PJ	BE8PJ	92P-068-530		Windy Creek	51 37 12 / 120 33 38

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	1	28.0	ESSF	dc	2	07-70 05-30	1,400	30	N	Lower Slope	35	SiL

STOCKING REQUIREMENTS				
ASSESSMENT DATES				
Standard Unit	Standards ID	Regen Delay (yrs)	Freegrow Early (yrs)	Freegrow Late (yrs)
1	1020903	4		20
Min/Max Elevation Regime: 1350 / 1480				

SU : 1REGENERATION LAYER													
PREFERRED SPECIES				ACCEPTABLE SPECIES				POST SPACING DENSITY(sph)				MAX CONIFEROUS (sph)	
Species		Min Ht. (m)	Footnotes	Species		Min Ht. (m)	Footnotes	Min		Max		10000	
Pli Se	Lodgepole Pine - Interior	1.6		Bl	Subalpine Fir	0.8		WELL SPACED TREES (sph)					
	Englemann Spruce	0.8						Target Pref/Acc		Minimum Pref/Acc		Minimum Pref	Min Horizontal Dist. Pref/Acc (m)
								1200		700		600	2.0
												Height Relative to Competition (%)	
												125	

OTHER REQUIRED STOCKING INFORMATION
This block is mapped within the ESSFdc3 biogeo zone; however, the applicable FSP does not have any stocking standards for the dc3 subzone (as well, LRM does not have any listed site series options under ESSFdc3), therefore the dc2 subzone was used to populate the silvicultural information (Ecological Info and Stocking Requirements).

ACTIVITIES

SILVICULTURE ACTIVITY COMMENTS	
ACTIVITY	COMMENT

MANAGEMENT STRATEGY

COARSE WOODY DEBRIS MANAGEMENT STRATEGY INFORMATION
Current coarse woody debris levels are high. Post harvest CWD target is 10m3/ha. The licensee must retain a minimum of 4 logs per hectare, each being a minimum of 2m in length and 7.5cm in diameter at one end. Non-merchantable log grades (firmwood rejects and some dry grade4) will be left on site. Reserved stems will contribute to future CWD. Any reserve trees that blow down will be left as CWD 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. Efforts will be made to ensure these logs are not broken at time of harvesting. Logs may consist of a variety of species and shall be evenly distributed across the cutblock. This cutblock is consistent with section 68 of the FPPR.
Performance Std. (%): 100.0 Block Target (%): 100.0 Coarse Woody Debris (m3/ha): 10.0

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2019 08 26	YES

RPF PRINTED NAME		RPF'S SIGNATURE and SEAL	
SARAH REMPEL			
DATE SIGNED			
2019/08/26			
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.			
DISTRICT MANAGER NAME	DATE SIGNED	DISTRICT MANAGER SIGNATURE	