



TENURE IDENTIFICATION

ORIGINAL

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
TA2127	-	WAAKU	BEAKU		Kamloops TSA FDU	Gottan Lake	50 32 38 / 120 48 34

AREA UNDER THE PLAN

GROSS AREA (TAUP)	PAS	NP	WTRA / WTP	RESERVES	OTHER	NAR
94.6	2.5	2.2	7.8	0.0	0.0	82.0

ADDITIONAL COMMENTS

DEFINITIONS (ADD DEFINITIONS AS REQUIRED)
This SP was prepared in accordance with FRPA S.10(1), 10(2), and 10(3) and is consistent with FSP#671 as approved and in effect at the time of signing this document. For the purposes of FRPA S.10(2), the "Site" (refer to the associated SP map) includes the block (Area Under the Plan) and the following external roads: KA R23793.01, KA R23793.02, KA R23793.03, KA23793.05 and KA 9328.02

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	25.0	25.0	7.0
SU	CRITICAL SITE CONDITIONS THAT AFFECT THE TIMING OF OPERATIONS, AND HOW THEY AFFECT THE TIMING			
1	A soil hazard assessment identified high compaction hazards. Industrial activities must be completed during a time that does not cause harm to soil productivity/function. (eg when soils are dry, frozen and/or under sufficient snowpack).			

RESULTS AND STRATEGIES

FSP:	FDU:
BCTS Kamloops FSP 671	Kamloops TSA FDU
Archaeological Objectives	
Result or Strategy Description	5.10 Archaeological Assessments
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	BCTS has referred this development to all potentially affected First Nations, as was determined through a search of the Consultative Area Database (CAD). All referral communication and management decisions have been documented in a BCTS Due Diligence Report signed off for approval by the Timber Sale Manager. This Site Plan is consistent with the management decisions and measures approved by the TSM. A "Modify/Stop Work Procedure" has been included in the harvest plan in the event that previously unidentified archaeological features are encountered during industrial activities on the Site.
Biodiversity Objectives	
Result or Strategy Description	5.5.1 General Biodiversity
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The Site is consistent with the strategies outlined in Section 5.5.1 of the FSP.
Result or Strategy Description	5.5.4 Stand Level Biodiversity
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The cutblock is greater than 5 hectares and 8.3% of the cutblock area has been identified as wildlife tree area. The harvest area does not include areas previously identified for WTRA.
Result or Strategy Description	5.5.2 Landscape Level Biodiversity
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are adjacent cutblocks and the combined NAR for the harvest area exceeds 40ha, however the maximum cutblock size does not apply because timber harvesting is being carried out on the cutblock to recover timber damaged by fire consistent with FPPR Sec.64(2)(a)(i)(A)

Result or Strategy Description	5.5.3 Old Growth Management Areas
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The Site is not within an Old Growth Management Area.
Cultural Heritage Objectives	
Result or Strategy Description	5.9 Cultural Heritage Resources
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>BCTS has referred this development to all potentially affected First Nations, as was determined through a search of the Consultative Area Database (CAD). All referral communication and management decisions have been documented in a BCTS Due Diligence Report signed off for approval by the Timber Sale Manager. This Site Plan is consistent with the management decisions and measures approved by the TSM.</p> <p>A “Modify/Stop Work Procedure” has been included in the harvest plan in the event that previously unidentified CHR’s are encountered during industrial activities on the Site.</p>
Lakes Management Objectives	
Result or Strategy Description	5.3.1 Lakeshore Management Zones
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	Clearcut harvesting is planned within the LMZ to salvage timber damaged by fire. The clearcut areas do exceed 25% of the total LMZ area, but are less than 10ha individually and not exceed 400m in length (using the “radius method”). These areas are far enough away from the RRZ that they have been determined to not impact the LMZ.
Result or Strategy Description	5.3.2 Walk-in Lakes
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The Site is not within or adjacent to the management zone surrounding a walk in lake.
Measures	
Result or Strategy Description	6.2 Invasive Plants
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>The Invasive Alien Plant Program (IAPP) database has been checked for the presence of invasive plants in the area proposed for development. Spotted knapweed and Diffuse knapweed were noted along the main haul route. Additionally, Yellow Toadflax was noted during the soil data collection phase.</p> <p>The Harvest Plan includes a requirement to apply grass seed consistent with this strategy.</p> <p>Where areas have been seeded, inspect the areas within 12 months of seeding to ensure successful establishment (i.e. >90% cover), and repeat one additional seeding if there is <90% cover.</p>
Result or Strategy Description	6.1 Natural Range Barriers
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	No natural range barriers were identified through the range referrals or during field development activities.
Range Objectives	
Result or Strategy Description	5.12 Range
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	BCTS has referred this development to all potentially affected Range Tenure Holders, as was determined through a search of the Government range tenure spatial data. All referral communication and commitments to potentially affected Range Tenure Holders have been documented in a planning summary. Strategies to address the timber and range conflicts were evaluated and considered in the design and management of the Site.

Recreation Objectives	
Result or Strategy Description	5.6.1 Recreation Sites and Trails
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	Recreation trails overlap the haul routes for this cutblock. Industrial activities must be conducted consistent with the associated Section 16 Recreation Authorization.
Result or Strategy Description	5.6.2 Recreation and Tourism Zones
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This site does not overlap with any Special Resource Management Recreation and Tourism Zones
Riparian Management Objectives	
Result or Strategy Description	5.4.1 Stream Riparian Classes
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>There are classified streams associated with the Site and areas of RMA are located within the harvest area:</p> <p>1) The Site was designed to be consistent with FPPR47(1), (2), (3)(a), (5), and (6).</p> <p>2) The RMA widths (including RRZ and RMZ) were determined in accordance with FSP Table 3 and established consistent with FSP5.4.1(3), (4), and (5).</p> <p>Refer to the Site Plan map for locations and the Riparian Assessments table in the Harvest Plan for site specific management.</p>
Result or Strategy Description	5.4.4 Restrictions in a Riparian Management Area
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>The Site has been designed so no roads are within a riparian management area.</p> <p>The Site has been designed so no roads are within a riparian management area except for at a stream crossing. At stream crossings, road maintenance activities must not be carried out beyond the road prism except when necessary to maintain a stream crossing. Gravel or other fill must not be removed from any riparian management area unless the gravel or fill is within a road prism at a stream crossing.</p>
Result or Strategy Description	5.4.6 Restrictions in a Riparian Management Zone
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>The percent retention in riparian management zones within the harvest area for the Site are designed to be consistent with (Table 3 for streams, Table 4 for wetlands, Table 5 for lakes-pick all that apply). Refer to the Site Plan map for locations and the Riparian Assessments table in the Harvest Plan for site specific management.</p> <p>This Site Plan is not associated with a minor tenure so FPPR52(1)(b) does not apply.</p> <p>The Harvest Plan contains a requirement to leave/retain trees that contribute to stream bank/channel stability within all machine free zones within the Riparian Assessments table.</p>
Result or Strategy Description	5.4.7 Restricted Operation of Machinery
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	Riparian Management Areas are within the harvest area and Machine Free Zones have been established consistent with FSP5.4.7. The Harvest Plan contains a requirement to minimize disturbance to herbaceous vegetation, shrubs, and understorey trees. Refer to the Site Plan map for locations and the Riparian Assessments table in the Harvest Plan for site specific management.
Result or Strategy Description	5.4.8 Exceptions to Restricted Op of Machinery
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	Operational exceptions to the requirements for restricted operation of machinery include: removing trees at stream crossings; removing trees to address a safety concern; where operating the machinery more than 5 meters from the stream bank will create a higher risk of sediment delivery; or where the harvesting is conducted in a manner that protects stream banks and minimizes damage to natural vegetation.
Result or Strategy Description	5.4.2 Wetland Riparian Classes
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no classified wetlands within the harvest area for the Site.

Result or Strategy Description	5.4.3 Lake Riparian Classes
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no classified lakes within the harvest area for the Site.
Result or Strategy Description	5.4.5 Restrictions in a Riparian Reserve Zone
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The site does not overlap any Riparian Reserve Zones. The results and strategies do not apply.
Settlement Area Objectives	
Result or Strategy Description	5.11 Settlement Area Objectives
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The Site is not within a Settlement Resource Management Zone.
Soil Management and Conservation Objective	
Result or Strategy Description	5.1 Soil Management and Conservation
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>The result of the soil hazard assessment was that sensitive soils are not present within the cutblock. The Harvest Plan contains a requirement to prevent soil damage and degradation.</p> <p>The Site has been designed so the area occupied by proposed temporary access structures and roadside work areas will not exceed the limits outlined in the Soil Disturbance table above.</p> <p>The Site has been designed so the area occupied by proposed permanent access structures will not exceed 7% of the cutblock</p>
Visual Objectives	
Result or Strategy Description	5.8.2 Visuals "Kamloops Visual Zone"
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The Site is within the Kamloops VSA and has an established VQO of partial retention from Jacks lake and Lake of the Woods. A VIA was completed that included the Site and other new cutblocks associated with the Site (ie same TSL). The result of the VIA was that the altered forest landscape resulting from the Site, when considered alongside existing alterations, meets the partial retention category of altered forest landscape when considered from all identified Significant Public Viewpoints. See the Visual Impact Assessment for additional information.
Result or Strategy Description	5.8.1 Visuals "Headwaters Visual Zone"
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The Site is not located within the Headwaters Visual Zone.
Water Objectives	
Result or Strategy Description	5.2.1 Community Watersheds
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The Site is not located within a community watershed.
Result or Strategy Description	5.2.2 Water Licensees
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	No active water licences are in the vicinity of the Site. It is not expected that any active water licence will be affected by industrial activities.
Result or Strategy Description	5.2.3.1 Channel Stability & Riparian Function
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The Site is not within a Fisheries Sensitive Watershed. This result/strategy does not apply to the Site.

Result or Strategy Description	5.2.3.2 Minimizing Adverse Sediment Effects
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The Site is not within a Fisheries Sensitive Watershed. This result/strategy does not apply to the Site.
Result or Strategy Description	5.2.3.3 Quantity & Timing of Flows
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The Site is not within a Fisheries Sensitive Watershed. This result/strategy does not apply to the Site.
Wildlife Objectives	
Result or Strategy Description	5.7.1 General Wildlife Objectives
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The Site is consistent with the strategies outlined in Section 5.5.1 of the FSP.
Result or Strategy Description	5.7.2 Mule Deer Winter Range
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The Site is not within a Mule Deer Winter Range polygon. The result/strategy does not apply to the Site.
Result or Strategy Description	5.7.3 Moose
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The Site is not within Critical Moose Winter Range.
Result or Strategy Description	5.7.4 Mountain Goat
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The Site is not within Mountain Goat Winter Range.
Result or Strategy Description	5.7.5 Flammulated Owl
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The Site is consistent with the strategies outlined in Section 5.7.5 of the FSP.
Result or Strategy Description	5.7.6 Lewis's Woodpecker
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The Site is not within a Lewis's Woodpecker Occurrence Site or its associated Management Area.
Result or Strategy Description	5.7.7 Spotted Bat
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The Site is not within a Spotted Bat Core Area or its associated Management Area.

STOCKING REQUIREMENTS

SU	NAR	STANDARDS ID #	OTHER PERFORMANCE STANDARDS
1	82.0	1005327	(PY9) ; PY-restricted to southerly aspects; (PY14) ; PY-restricted to lower elevations of biogeoclimatic unit; (SX10) ; SX-restricted to northerly aspects; (SX13) ; SX-restricted to upper elevations of biogeoclimatic unitMITD may be reduced to 1.5m if the site plan has identified site specific criteria as listed in the FSP. Regen delay will be 4 years unless site plan identifies natural regeneration when it can be set up to a max. of 7 years.
COMMENTS	<p>The current 2016 biogeoclimatic mapping (BEC) was used to identify the initial BEC for the block. Through the establishment of field SP plots, the block has been ecologically classified using Land Management Handbook 23: A Guide to Site Identification and Interpretation for the Kamloops Forest Region (1990 BEC). The crosswalk tables associated with the 2016 BEC mapping were used to correlate to the 1990 BEC for selecting stocking standards. Details of the stocking standards are contained in the associated Silviculture Plan.</p> <p>If site preparation is required to establish crop trees, or if stocking density targets are at risk from cattle congregation, the MITD can be reduced to 1.5m.</p>		

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2023 05 01	YES

RPF PRINTED NAME	RPF'S SIGNATURE and SEAL
BRENT FUKUMOTO	
DATE SIGNED	
2023/05/01	
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

ORIGINAL

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
TA2127	-	WAAKU	BEAKU		Kamloops TSA FDU	Gottan Lake	50 32 38 / 120 48 34

ASSESSMENTS

VISUAL IMPACT ASSESSMENT INFORMATION

No additional management applies to the development beyond the Results and Strategies contained in the Site Plan for this block.

PEST INCIDENCE SURVEY INFORMATION

Pest Specific Comments

IBM: None observed
IBS: None observed
IBD: None observed

No insects of management concern were observed during development of the Site.

Forest Health Comments

DRA: None observed
DRL: None observed
DML/DMP: None observed

No diseases of management concern were observed during development of the Site.

ARCHAEOLOGICAL IMPACT ASSESSMENT INFORMATION

BCTS has referred this development to all potentially affected First Nations, as was determined through a search of the Consultative Area Database (CAD). All referral communication and management decisions have been documented in a BCTS Due Diligence Report signed off for approval by the Timber Sale Manager. This Site Plan is consistent with the management decisions and measures approved by the TSM.

A “Modify/Stop Work Procedure” has been included in the harvest plan in the event that previously unidentified CHR’s are encountered during industrial activities on the Site.

TERRAIN STABILITY FIELD AND GULLY ASSESSMENTS INFORMATION

Terrain Stability Comments

The Site is not within or adjacent to terrain stability inventory polygons and no indicators of instability were observed in the field. It was determined that a Terrain Stability Assessment was not required.

Gully Comments

N/A in Interior BC

VEGETATION

Competing vegetation is not anticipated to be a concern. A post-harvest assessment is recommended to determine if competing vegetation becomes a concern.

RIPARIAN ASSESSMENTS

Management Strategies

Riparian areas and non-classified drainage features have been identified in the vicinity of the harvest area.

On seasonally wet ground, measures must be taken to prevent sediment transport to a stream, wetland or lake consistent with BCTS’s Environmental Management System.

During industrial activities, impacts to the environment due to erosion & sediment must be considered within and external to the site where downslope/downstream areas may be affected by erosion & sediment caused by industrial activities.

EROSION & SEDIMENT RISK: The risk of sediment delivery to a stream, wetland, or lake must be assessed and managed on the Site. If there is a greater than low risk of sediment delivery, erosion and sediment control measures must be outlined in a plan that includes a list of materials that must be on Site in the event that erosion and sediment control measures are required to be deployed.

EROSION & SEDIMENT CONTROL: If sediment transportation occurs on the Site, appropriate erosion and sediment control measures must be undertaken to the extent necessary to: 1) prevent sediment from entering a stream, wetland, or lake; 2) mitigate against damage to the environment (including but not limited to protection requirements in the Water Sustainability Act for water quality and aquatic habitat); and 3) prevent a material adverse effect from occurring to an objective set by government (see Site Plan-Results and Strategies).

Riparian I.D. and Class	RMA	SU	WIDTH (m)	BA or SPH Retained	Comments (Indicate if in a Community Watershed)		
Jacks Lake C	RRZ		10.0		The site is greater than 10- meters from the L3 lake.		
	RMZ	A	200.0		The site is within the 200m LMZ of the C class Lake and is to be managed as per SU1.		
Lake of the Woods C	RRZ		10.0		The site is greater than 10-meters from the L3 lake.		
	RMZ	A	200.0		The site is within the 200m LMZ of the C class Lake and is to be managed as per SU1.		
WAAKU-1-S3 S3	RRZ	1	20.0		S3 stream lies greater than 30 meters outside the northeastern block boundary. Any portion of the block that overlaps the riparian management area will be managed per SU1.		
WAAKU-1-W3 W3	RMZ	1	30.0		The block boundary lies a minimum of 60 meters from this Wetland. Portions of the RMZ that lie within the proposed harvest area will be managed as per SU1.		
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	L			NNTD	
COMMENTS							
Soils within WAAKU are primarily Silty Loams with a High compaction hazard, a Moderate erosion hazard, along with a Low soil displacement hazard rating.							

RESERVE / RETENTION INFORMATION

WTRA / WTP (INSIDE OR ATTRIBUTED TO THE BLOCK)		
I.D.#	Area	Description
WTRA	7.8	WTRA # 1 - FdiSx(At) 630 (2.34 ha): Consists primarily of dead fire damaged Douglas Fir designated to contribute to biodiversity and protection of Lake of the Woods and WAAKU-1-S3.
		WTRA # 2 - Fdi 621 (1.84 ha): Consists primarily of dead fire damaged Douglas Fir designated to contribute to biodiversity and protection of WAAKU-1-S3.
		WTRA # 3 - Fdi 621 (3.66 ha): Consists primarily of dead fire damaged Douglas Fir designated to contribute to biodiversity and protection of Jacks lake.

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	%
WAAKU	94.6	7.8	8.3	IDF/dk/1	2.5	2.6
WAAKW	75.1	5.0	6.6	IDF/dk/1	1.4	1.8
WAAKY	23.6	2.3	10.0	IDF/dk/1	0.3	1.1
WAALO	27.5	1.3	4.8	IDF/dk/1	0.7	2.5
Total # of Blocks: 4	220.8	16.5	7.5		4.8	2.2

SUPPORTING INFORMATION

HLP/FSP CONSIDERATIONS
Wildlife/Endangered Species Comments
<p>MIGRATORY BIRD STRATEGY Canada Nesting Zone: A2 BEC: IDF Nest Density Matrix: Interior Douglas Fir, Age Class 5 and 6, 19.5 - 28.4 m, Douglas Fir leading (92%). Nest Density Matrix Ranking: 3 Forest Health: Unranked (Wildfire)</p> <p>As per the BMP for wildfire salvage operations: unburned patches of trees, partially burned patches, single live windfirm trees, and snag including snags >30 cm dbh have been retained within or adjacent to the block.</p> <p>A stop work procedure has been included in the Harvest Plan in the event that a previously unidentified migratory nest is encountered during industrial activities.</p> <p>SPECIES/ECOSYSTEMS AT RISK (SAR/EAR) A BC Species and Ecosystems Explorer blue and red list search was completed for this area. The search result contained 175 species and 14 ecosystems as having potential to exist on the Site. During field development, no SAR/EAR were noted or identified on the Site.</p> <p>The Conservation Data Centre’s spatial SAR database was reviewed and no SAR polygons were found to be within or adjacent the Site. The Conservation Data Centre’s spatial SAR database was reviewed and SAR polygons were found to be within or adjacent to the Site and a wildlife assessment was completed.</p>
Range Comments
<p>The Site is within the following range tenures:</p> <p>RAN077358 (Indian Gardens Ranch LTD) RAN077354 (Derek Anderson) RAN077357 (Gardens Creek Ranch LTD) RAN077355 (Twin Diamond Ranch LTD) RAN 077356 (James Mohr)</p> <p>Range improvements exist within the cutblock: Fenceline</p> <p>Any fence breach is required to be consistent with the District Manager’s "Authorization to Damage and Repair a Range Development on Crown Range" letter.</p>
Fisheries Comments
<p>No fish habitat is within or adjacent to the Site. The riparian management measures in the Harvest Plan are expected to prevent and/or mitigate any potential impacts to fish habitat downslope/downstream to the Site.</p>
Watersheds/Hydro Assessments Comments
<p>The site is located within the Durand Creek watersheds which is not listed as a fisheries sensitive watershed.</p>
Sensitive Areas Comments
<p>N/A</p>
Recreation Comments
<p>Designated recreation trails or sites are within or adjacent to the Site.</p>
Cultural Heritage Comments
<p>Potential cultural heritage resources were assessed by:</p> <p>-Referring the Site to potentially affected First Nations,</p> <p>-Work with the lead First Nation groups to evaluate known information,</p> <p>-Provide opportunity for lead First Nations to conduct a field review of areas with high likelihood of potential cultural heritage value.</p> <p>The record of how recommendations were considered in the design and management of the Site has been documented in BCTS’s Due Diligence Report signed off for approval by the Timber Sale Manager.</p>
Biodiversity Emphasis/L.U. Comments
<p>The proposed block is located within the Southern Kamloops and Upper Guichon Landscape Unit (LU) areas. According to the Kamloops LRMP (July, 1995), these Landscape Units have a Biodiversity emphasis of Intermediate and Low respectively.</p>
Other Resources Comments
<p>Two traplines are current for block WAAKU: TR0319T001 TR0318T002</p> <p>Referrals have been sent with response asking for a map showing his trapline boundary to determine his sets and no further work is necessary.</p> <p>There is one active mineral tenure associated with the proposed harvest area: 1088580. Referrals have been sent with no response and no further work is necessary.</p> <p>Coarse woody debris piles (as detailed in the Coarse Woody Debris Section) will be created to augment small mammal habitat and to enhance trapline values.</p> <p>There are no guide outfitters that operate within the proposed harvest area.</p>

ADDITIONAL COMMENTS:
Surveys
<p>A windthrow assessment was conducted by IPAC during Spring, 2022. Overall, the windthrow risk for the proposed block was assessed as Moderate, with higher levels expected along retained edges and WTRA’s. Cutblock design has been manipulated to mitigate potential windthrow in retained areas and along the cutblock edge, however some windthrow is still anticipated.</p> <p>Any windthrow occurring along retained edges or from prescribed leave trees will be left on-site to contribute to stand CWD recruitment.</p>

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2023 05 01	YES

HARVEST PLAN

ORIGINAL

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TA2127	-	WAAKU	BEAKU		Kamloops TSA FDU	Gottan Lake	50 32 38 / 120 48 34

SILVICULTURE SYSTEMS

SU	SYSTEM	VARIANT	PHASE	RESERVE	Min BA (m2/ha)	Min Residual Density (sph)
1	CCRES		SALVF	G		
Current Stand Structure/Site Conditions			The cruise compilation (full volume) indicates that the current stand composition is 92% Douglas fir, 8% Spruce, and <1% Aspen comprising of a net merchantable coniferous volume of 126m3/ha. Bark beetle attack by species: No insect damage noted			
Silviculture Systems SU Comments			SU-1: Clearcut with reserves silviculture system. The majority of the leave stems will be dispersed throughout the block. The purpose of these stems is to provide biodiversity, nesting sites, burrows, shade, and future CWD and stand structure.			
Min. Characteristics of Leave Trees (Form, Health, Vigour)			RESERVE TREES TO LEAVE Reserve trees are expected to be unevenly distributed across the net area to reforest. Deciduous greater than/equal to 17.5cm dbh. the cruise targets 95% leave and allows for 5% take for exceptional circumstances. The cruise indicates approximately 1.8 stems/ha or 148 total stems can be expected to be retained. Patch 1 Douglas fir greater than/equal to 52.5cm dbh - the cruise targets 95% leave. The cruise indicates approximately 1.8 stems/ha or 23 total stems can be expected to be retained. Patch 2 Douglas fir greater than/equal to 52.5cm dbh - the cruise targets 95% leave. The cruise indicates approximately 18.6 stems/ha or 102 total stems can be expected to be retained. Patch 3 Douglas fir greater than/equal to 52.5cm dbh - the cruise targets 95% leave. The cruise indicates approximately 12.7 stems/ha or 809 total stems can be expected to be retained. Reserve all live trees within the stand. Although none were tallied in the cruise, leave these trees if they are encountered. It is anticipated that less than 5% of the stand will be green at the time of harvest. All live trees retained must be free from insect at the time of harvest. Individual trees may be felled for safety reasons if doing so will not compromise the leave tree objectives. If an individual tree is felled for safety, the TSL holder must provide rationale through a danger tree assessment as to why the target tree was removed.			

Additional Comments

Harvesting Constraints	STOP WORK PROCEDURE If a previously unidentified Affected Feature is encountered during harvesting, road construction, or mechanical site preparation that is authorized or carried out by the Timber Sales Manager (TSM), the TSM will require that the operations cease to the extent necessary to protect the Affected Feature until an evaluation can be carried out. Affected Features: Cultural Heritage Resource, Archaeological Resource, active migratory bird nests, stick nests, active wildlife den. SLOPES Slopes range from 1 to 38% (avg. 13.5%) and approx. 5% of the block contains slopes >25%. There are minimal slopes >35% within the block. Written safe steep slopes procedures are required and licensees are to adhere to section 26.16 or the OHS regulation. RANGE Range improvements exist within the cutblock: Fenceline Any fence breach is required to be consistent with the District Manager's "Authorization to Damage and Repair a Range Development on Crown Range" letter.
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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	M	L	10.0	25.0	7.0	25.0			None Noted	
SU	Critical site conditions that affect the timing of operations and how they affect the timing										
1	A soil hazard assessment identified high compaction hazards. Industrial activities must be completed during a time that does not cause harm to soil productivity/function. (eg when soils are dry, frozen and/or under sufficient snowpack).										

SU MANAGEMENT COMMENTS	
SU	SU Description
1	<p>WINDTHROW ASSESSMENT, FOREST HEALTH TREATMENTS, RANGE,</p> <p>WINDTHROW: A windthrow risk assessment was completed for this block and the windthrow risk was estimated to be moderate.</p> <p>REVEGETATION: Exposed soils associated with roads, trails, and block disturbance must be grass seeded to the extent necessary to prevent sediment from entering a stream, wetland, or lake. To prevent the spread of invasive plants, all disturbed areas greater than or equal to 0.01ha must be revegetated using seed that is free from weeds (ie Canada Common Number 1). Disturbed areas to be revegetated include but are not limited to: ditch lines, road cut slopes, road fill slopes, bladed trails.</p>

SOIL MANAGEMENT COMMENTS	
Soil Conservation	
Soils within WAAKU are primarily Silty Loams with a High compaction hazard, a Moderate erosion hazard, along with a Low soil displacement hazard rating.	
Temporary Access	
<p>WAAKU contains 0.29ha or 1.15% temporary access structures:</p> <p>Harvesting is to be conducted in a manner that will ensure the maximum soil disturbance limits (10%) are not exceeded and that natural drainage patterns are maintained.</p> <p>The Licensee will monitor site conditions to ensure soil disturbance remains within the limits prescribed above.</p>	
Slope Instability	
The Site is not within or adjacent to terrain stability inventory polygons and no indicators of instability were observed in the field. It was determined that a Terrain Stability Assessment was not required.	

RIPARIAN ASSESSMENTS	
Management Strategies	
<p>Riparian areas and non-classified drainage features have been identified in the vicinity of the harvest area.</p> <p>On seasonally wet ground, measures must be taken to prevent sediment transport to a stream, wetland or lake consistent with BCTS's Environmental Management System.</p> <p>During industrial activities, impacts to the environment due to erosion & sediment must be considered within and external to the site where downslope/downstream areas may be affected by erosion & sediment caused by industrial activities.</p> <p>EROSION & SEDIMENT RISK: The risk of sediment delivery to a stream, wetland, or lake must be assessed and managed on the Site. If there is a greater than low risk of sediment delivery, erosion and sediment control measures must be outlined in a plan that includes a list of materials that must be on Site in the event that erosion and sediment control measures are required to be deployed.</p> <p>EROSION & SEDIMENT CONTROL: If sediment transportation occurs on the Site, appropriate erosion and sediment control measures must be undertaken to the extent necessary to: 1) prevent sediment from entering a stream, wetland, or lake; 2) mitigate against damage to the environment (including but not limited to protection requirements in the Water Sustainability Act for water quality and aquatic habitat); and 3) prevent a material adverse effect from occurring to an objective set by government (see Site Plan-Results and Strategies).</p>	

Riparian I.D. and Class	RMA	SU	WIDTH (m)	BA or SPH Retained	Comments (Indicate if in a Community Watershed)
Jacks Lake C	RRZ		10.0		The site is greater than 10- meters from the L3 lake.
	RMZ	A	200.0		The site is within the 200m LMZ of the C class Lake and is to be managed as per SU1.
Lake of the Woods C	RRZ		10.0		The site is greater than 10-meters from the L3 lake.
	RMZ	A	200.0		The site is within the 200m LMZ of the C class Lake and is to be managed as per SU1.
WAAKU-1-S3 S3	RRZ	1	20.0		S3 stream lies greater than 30 meters outside the northeastern block boundary. Any portion of the block that overlaps the riparian management area will be managed per SU1.
WAAKU-1-W3 W3	RMZ	1	30.0		The block boundary lies a minimum of 60 meters from this Wetland. Portions of the RMZ that lie within the proposed harvest area will be managed as per SU1.

COARSE WOODY DEBRIS MANAGEMENT STRATEGY INFORMATION	
<p>Current coarse woody debris (CWD) levels are estimated at 5-10m3/ha.</p> <p>CWD Targets: Total - where feasible, aim to retain 4m3/ha or less as CWD evenly distributed across the cutblock. Small CWD - at a minimum, retain 4 logs/ha each being no less than 2m in length and at least 7.5cm in diameter at one end. Large CWD - at a minimum, retain 4 logs/ha each being a minimum of 10m in length and at least 20cm diameter at one end.</p> <p>CWD Strategies: Effort will be made to ensure these logs are not broken at time of harvesting. CWD pieces may consist of any available species provided that they are not expected to contribute to a forest health risk (ie - Bark Beetle). The preference is for CWD to be sourced from non-merchantable log grades (firmwood rejects and some dry grade 4) where available. Target leave trees are expected to contribute to future CWD when they fall to the ground but may be removed if they contribute to a forest health risk (ie - Bark Beetle).</p> <p>Small Mammal Habitat: Small mammal piles will be created and will be at least 3m wide, at least 5m long, and mechanically piled at least 2m high using the largest woody debris available on the Site. Debris piles will be located more than 20m from standing timber, but within 200 meters of Riparian Management Areas and block edges and oriented to connect WTRA and/or riparian features with the block edge. In Patch 3 at a minimum, 12 small mammal piles are required; create additional piles as needed to achieve WTRA and/or riparian feature connection.</p> <p>CWD management is consistent with Section 68 of the FPPR.</p>	
Performance Std. (%) :	Block Target (%):
Coarse Woody Debris (m3/ha): 4.0	

DEFINITIONS

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2023 05 01	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
BRENT FUKUMOTO	
DATE SIGNED	
2023/05/01	
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

ORIGINAL

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
TA2127	-	WAAKU	BEAKU		Kamloops TSA FDU	Gottan Lake	50 32 38 / 120 48 34

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	82.04	IDF	dk	1	04-100	1,252	8	SW	Middle Slope	30	SIL

STOCKING REQUIREMENTS				
ASSESSMENT DATES				
Standard Unit	Standards ID	Regen Delay (yrs)	Freegrow Early (yrs)	Freegrow Late (yrs)
1	1005327	4	0	20
Min/Max Elevation Regime: 1240 / 1265				

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
Pli	Lodgepole Pine - Interior	1.0		Sx	Hybrid Spruce (SE x SW)	0.6		WELL SPACED TREES (sph)	
Fdi	Douglas Fir - Interior	0.8		Py	Yellow Pine	0.6		Target Pref/Acc	Minimum Pref/Acc
								1000	500
								Height Relative to Competition (%)	
								125	

OTHER REQUIRED STOCKING INFORMATION
The current 2016 biogeoclimatic mapping (BEC) was used to identify the initial BEC for the block. Through the establishment of field SP plots, the block has been ecologically classified using Land Management Handbook 23: A Guide to Site Identification and Interpretation for the Kamloops Forest Region (1990 BEC). The crosswalk tables associated with the 2016 BEC mapping were used to correlate to the 1990 BEC for selecting stocking standards. Details of the stocking standards are contained in the associated Silviculture Plan.
If site preparation is required to establish crop trees, or if stocking density targets are at risk from cattle congregation, the MITD can be reduced to 1.5m.

ACTIVITIES

SITE PREPARATION	
82.04	
Disc Trenching-PL 2025/05/31	
AREA	TECHNIQUE(S) / LIMITING FACTOR

PLANTING						
Planting(Container) 2026/05/30 SEASON:						
AREA	PLANTING UNIT	UNIT AREA	SPECIES	COMMENTS	STEMS / HA	TOTAL STEMS
82.0	1	82.0	Douglas Fir - Interior		900	73832
			Lodgepole Pine - Interior		720	59066
			Yellow Pine		180	14767
			LIMITING FACTORS / COMMENTS			

SILVICULTURE ACTIVITY COMMENTS	
ACTIVITY	COMMENT

MANAGEMENT STRATEGY

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

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
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BRENT FUKUMOTO	
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2023/05/01	
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