SITE PLAN
KAMLOOPS
BC TIMBER SALES

BCTS BC Timber Sales Kamloops

Report Date 2023/05/05

TENURE IDENTIFICATION

ORIGINAL

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
TA2127	-	WAAKW	BEAKW		Kamloops TSA FDU	Gottan Lake	50 33 01 / 120 49 47

AREA UNDER THE PLAN

GROSS AREA (TAUP)	PAS	NP	WTRA / WTP	RESERVES	OTHER	NAR
75.1	1.4	0.8	5.0	0.0	0.0	68.0

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: KA9327.01, KA9327.02 and WAAKW.01 to.04

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	NOTIFICATIONS, TIMING RESTRICTIONS, SITE RESTRICTIONS The allowable disturbance for WAAKW is 10% as stated in section 35(3)(b) of the FPPR and up to a maximum of 25% soil disturbance for roadside work areas. Harvesting is to be conducted in a manner that will ensure the maximum soil disturbance limits are not exceeded and that natural drainage patterns are maintained. The Licensee will monitor site conditions to ensure soil disturbance remains within the limits prescribed above.

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 oulined in Section 5.5.1 of the FSP.

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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 greater than 3.5% of the cutblock area has been identified as wildlife tree area. The amount of WTRA that relates to the cutblock is at least 7% and will positively contribute to the annual aggregate WTRA requirement. 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, insect infestation, wind or other similar events] consistent with FPPR Sec.64(2).
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)	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.
Lakes Management Objectives	
Result or Strategy Description	5.3.1 Lakeshore Management Zones
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 a lake management zone associated with the Kamloops Forest District Lakes Local Resource Use Plan – Lakeshore Management Guidelines dated December 20, 2001.
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)	The Invasive Alien Plant Program (IAPP) database-March 2023 has been checked for the presence of invasive plants in the area proposed for development showed the following invasive plant species in previously recorded locations: BT, CT, DT, HT, OT, SK, and YT were located along the haul route or near the block. No addittional invasive plants were noted during development The Harvest Plan includes a requirement to apply grass seed consistent with this strategy. 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.

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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. No natural range barriers were identified to be associated with the site. A section 58 District letter of exemption for non motorized vehicle access has been written and must be signed by licensee prior to commencement of harvest.
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:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no classified streams within the harvest area for the Site.
Result or Strategy Description	5.4.2 Wetland Riparian Classes
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no classified wetlands within the harvest area for the Site.
Result or Strategy Description	5.4.3 Lake Riparian Classes
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no classified lakes within the harvest area for the Site.
Result or Strategy Description	5.4.4 Restrictions in a Riparian Management Area
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no riparian management areas within the harvest area for the Site.
Result or Strategy Description	5.4.5 Restrictions in a Riparian Reserve Zone
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no riparian reserve zones within the harvest area for the Site.

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Result or Strategy Description	5.4.6 Restrictions in a Riparian Management Zone
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no riparian management zones within the harvest area for the Site.
Result or Strategy Description	5.4.7 Restricted Operation of Machinery
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no riparian management areas within the harvest area for the Site.
Result or Strategy Description	5.4.8 Exceptions to Restricted Op of Machinery
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no riparian management areas within the harvest area for the Site.
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)	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. 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. The Site has been designed so the area occupied by proposed permanent access structures will not exceed 7% of the cutblock
Visual Objectives	
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.
Result or Strategy Description	5.8.2 Visuals "Kamloops Visual Zone"
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The proposed harvest area does not lie within a visually sensitive area
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.

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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.

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STOCKING REQUIREMENTS

SU	NAR	STANDARDS ID #	OTHER PERFORMANCE STANDARDS
1	68.0	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	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, or XXXX the MITD can be reduced to 1.5m.		

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2023 03 16	YES

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RPF PRINTED NAME	RPF'S SIGNATURE and SEAL
Brent Fukumoto	
DATE SIGNED	
2023/05/08	
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.

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

SUPPORT DOCUMENT

ORIGINAL

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
TA2127	-	WAAKW	BEAKW		Kamloops TSA FDU	Gottan Lake	50 33 01 / 120 49 47

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

Potential archaeological resources were assessed by:
-Querying the RAAD system,
-Evaluating the Site against AOA/known information,
-Conducting a field review of areas with high likelihood of potential archaeological value.

An AIA was not required because no areas of potential archaeological value are known to be associated with 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

Post fire competing vegetation is anticipated to be a concern. A post-harvest assessment is recommended to determine if competing vegetation becomes a concern

RIPARIAN ASSESSMENTS

Management Strategies

Riparian assessments have been completed by IPAC during the development and SP data collection phases in the Spring/Summer of 2022. No classified features were located within 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)
WAAKW-1 -NCW UC	RRZ	1			The wetland is located outside of the harvest boundary. No additional management is required.
WAAKW-2 -NCW UC	RRZ	1			The wetland is located outside of the harvest boundary. No additional management is required.

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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							
Soils within WAAKW are primarily Silty Loams with a High compaction and 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	5.0	WTRA #1 to 6 (4.97 ha) Comprised of a mxiture of NP areas with poor volume and to provide retention around non-classified wetlands.

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
WAAL0	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**

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SUPPORTING INFORMATION

HLP/FSP CONSIDERATIONS

Wildlife/Endangered Species Comments

MIGRATORY BIRD STRATEGY
Canada Nesting Zone: A2
BEC: IDF
Nest Density Matrix: Douglas Fir >75%, Age Class 5 and 6, 10.5 - 19.4 m
Nest Density Matrix Ranking: 3
Forest Health: Unranked (Wildfire)

Unburned patches of trees, partially burned patches, single live windfirm trees, and, where safe to do so, some patches of snags should be retained, including snags >30 cm dbh.

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.

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.

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.

Range Comments

The Site is within the following range tenures:

RAN075109 (Indian Gardens Ranch LTD)
RAN075112 (Anthony Anderson)
RAN075110 (Gardens Creek Ranch LTD)

-Operational commitments resulting from the referral process are detailed in the Harvest Plan.

Fisheries Comments

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.

Watersheds/Hydro Assessments Comments

The site is located partially within the Durand Creek watershed, the Upper Guichon Creek watershed and the Chartrand Creek watershed.

Sensitive Areas Comments

N/A

Recreation Comments

Recreation trails overlap the haul routes for this cutblock. Industrial activities must be conducted consistent with the associated Section 16 Recreation Authorization.

Cultural Heritage Comments

Potential cultural heritage resources were assessed by:

-Referring the Site to potentially affected First Nations,

-Work with the lead First Nation groups to evaluate known information,

-Provide opportunity for lead First Nations to conduct a field review of areas with high likelihood of potential cultural heritage value.

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.

Biodiversity Emphasis/L.U. Comments

The proposed block is located within the Upper Guichon Creek Landscape Unit (LU) area. According to the Kamloops LRMP (July, 1995), this Landscape Unit has a Biodiversity emphasis of Low.

Other Resources Comments

Two traplines ares current for block WAAKW:
TR0318T002 and TR0319T001

Referrals have been sent with response asking for a map showing his trapline boundary to determine his sets and no further work is necessary.

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.

There are no active mineral tenures associated with the proposed harvest area.

There are no guide outfitters that operate within the proposed harvest area.

ADDITIONAL COMMENTS:

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2023 03 16	YES

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HARVEST PLAN

ORIGINAL

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
TA2127	-	WAAKW	BEAKW		Kamloops TSA FDU	Gottan Lake	50 33 01 / 120 49 47

SILVICULTURE SYSTEMS

SU	SYSTEM	VARIANT	PHASE	RESERVE	Min BA (m2/ha)	Min Residual Density (sph)
1	CCRES		SALVF			

Current Stand Structure/Site Conditions	The cruise compilation (full volume) indicates that the current stand composition is 97% Douglas fir, 1% Spruce, 1% Lodgepole pine and <1% Aspen comprising of a net merchantable coniferous volume of 79m3/ha. Bark beetle attack by species: No insect damage noted
Silviculture Systems SU Comments	SU-1: Clearcut with Reserves silviculture system: Fire Salvage 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. WAAKW-1: 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 6.5 stems/ha or 349 total stems can be expected to be retained HU 1/2: Retain Douglas fir greater than to 52.4cm dbh - the cruise targets 95% leave. The cruise indicates approximately 2.2 stems/ha or 118 total stems can be expected to be retained. HU2: CRMZ: Retain Douglas-fir greater than 17.4 cm DBH-the cruise targets 50% leave. The cruise indicates approximately 159.3 stems/ha or 143 total stems can be expected to be retained. WAAKW-2 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 20.2 stems/ha or 270 total stems can be expected to be retained Live Trees: A 'live' tree will be defined as a tree with green needles and exhibiting any new growth this year (2022) that is free from beetle attack. 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 1% 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. STUBBING: Establish stub trees every 5-10m (where possible) at 3-5m in height to facilitate locating the following features during harvest and post harvest: along the CRMZ marked with RMZ ribbon.

Additional Comments

Harvesting Constraints	DANGER TREES 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. SLOPES Slopes range from 2 to 27% (avg. 7%) and approx. 1% of the block contains slopes >25%. There are no slopes >35% within the block. RANGE If cattle are in the vicinity during primary forestry activities or hauling, a forestry range conflict plan must be prepared that includes measures to mitigate the risks of injury to cattle and the risks of cattle escape; this plan must be communicated to BCTS within 24 hours of identifying the forestry range conflict
Surveys	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. Cutblock design has been manipulated to mitigate potential windthrow in retained areas and along the cutblock edge, however some windthrow is still anticipated. Any windthrow occurring along retained edges or from prescribed leave trees will be left on-site to contribute to stand CWD recruitment.

SOIL ASSESSMENT

	HAZARD RATINGS			SOIL DISTURBANCE				SOIL CHARACTERISTICS			
								Depth to Unfavorable Subsoil			
SU	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 %	Min (cm)	Max (cm)	Type of Unfavorable Subsoil	Sediment Delivery Risk (Comm. Watershed)
1	H	H	L	10.0	5.0	7.0	25.0			None Noted	

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SU	Critical site conditions that affect the timing of operations and how they affect the timing
1	NOTIFICATIONS, TIMING RESTRICTIONS, SITE RESTRICTIONS The allowable disturbance for WAAKW is 10% as stated in section 35(3)(b) of the FPPR and up to a maximum of 25% soil disturbance for roadside work areas. Harvesting is to be conducted in a manner that will ensure the maximum soil disturbance limits are not exceeded and that natural drainage patterns are maintained. The Licensee will monitor site conditions to ensure soil disturbance remains within the limits prescribed above.

SU MANAGEMENT COMMENTS

SU	SU Description
1	WINDTHROW ASSESSMENT, FOREST HEALTH TREATMENTS, RANGE, WINDTHROW: A windthrow risk assessment was completed for this block and the windthrow risk was estimated to be moderate. FOREST HEALTH: Pli stems >50cm in height will be eradicated in efforts to minimize future mistletoe infestations. 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.

SOIL MANAGEMENT COMMENTS

Soil Conservation

Soils within WAAKW are primarily Silty Loams with a High compaction and erosion hazard, along with a Low soil displacement hazard rating.

Temporary Access

WAAKW contains three temporary access structures: KA WAAKW.01, KA WAAKW.02, and KA WAAKW.03. and KA WAAKW.04 totalling 2.111 km or 3.10% of the NAR.

Harvesting is to be conducted in a manner that will ensure the maximum soil disturbance limits (5%) are not exceeded and that natural drainage patterns are maintained.

The Licensee will monitor site conditions to ensure soil disturbance remains within the limits prescribed above.

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

Riparian assessments have been completed by IPAC during the development and SP data collection phases in the Spring/Summer of 2022. No classified features were located within 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)
WAAKW-1 -NCW UC	RRZ	1			The wetland is located outside of the harvest boundary. No additional management is required.
WAAKW-2 -NCW UC	RRZ	1			The wetland is located outside of the harvest boundary. No additional management is required.

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COARSE WOODY DEBRIS MANAGEMENT STRATEGY INFORMATION
Current coarse woody debris (CWD) levels are estimated at 24-30m3/ha. CWD Targets: Total - where feasible, aim to retain 5m3/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. 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). 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. At minimum, 20 small mammal piles are required between the WAAKW-1 and 2; create additional piles as needed to achieve WTRA and/or riparian feature connection. CWD management is consistent with Section 68 of the FPPR.
Performance Std. (%) : 100.0 Block Target (%): Coarse Woody Debris (m3/ha):

DEFINITIONS

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	
ORIGINAL	2023 03 16	Map Required? 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	
2023/05/08	
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.	

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

SILVICULTURE PLAN

ORIGINAL

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
TA2127	-	WAAKW	BEAKW		Kamloops TSA FDU	Gottan Lake	50 33 01 / 120 49 47

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	68.01	IDF	dk	1	04-70 01-30	1,225	5	NW	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: 1200 / 1250

SU : 1 REGENERATION LAYER

PREFERRED SPECIES			ACCEPTABLE SPECIES			POST SPACING DENSITY(sph)		MAX CONIFEROUS (sph)	
Species	Min Ht. (m)	Footnotes	Species	Min Ht. (m)	Footnotes	Min	Max		
						WELL SPACED TREES (sph)			
Pli Lodgepole Pine - Interior	1.0		Sx Hybrid Spruce (SE x SW)	0.6		Target Pref/Acc	Minimum Pref/Acc	Minimum Pref	Min Horizontal Dist. Pref/Acc (m)
Fdi Douglas Fir - Interior	0.8		Py Yellow Pine	0.6		1000	500	400	2.0
								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, or XXXX the MITD can be reduced to 1.5m.

ACTIVITIES

SITE PREPARATION

68.01

Disc Trenching-PL 2025/05/15

AREA	TECHNIQUE(S) / LIMITING FACTOR

PLANTING

Planting(Container) 2026/05/14 SEASON: SP

AREA	PLANTING UNIT	UNIT AREA	SPECIES	COMMENTS	STEMS / HA	TOTAL STEMS
68.0	**1**	68.0	Douglas Fir - Interior		900	61205
			Lodgepole Pine - Interior		720	48964
			Yellow Pine		180	12241
	LIMITING FACTORS / COMMENTS					

SILVICULTURE ACTIVITY COMMENTS

ACTIVITY	COMMENT

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MANAGEMENT STRATEGY

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

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2023 03 16	

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