

A. PROJECT IDENTIFICATION	
PROJECT ID AND UNIT ID: Ktunaxa Nation Treaty Lands, Treatment Unit S1	LAND OR TENURE HOLDER: Provincial Crown Land Involved in treaty negotiations.
LATITUDE/LONGITUDE: 49°34'6.12"N, 115°48'21.59"W	GEOGRAPHIC DESCRIPTION: Six Mile Lane
HIGHER-LEVEL PLAN(s): Kootenay Boundary Higher Level Plan Order October 26, 2002	MAP REFERENCE NUMBER: 82G.042

B. PROJECT DESCRIPTION		
OBJECTIVE:	PUBLIC SAFETY ☒	RANGE IMPROVEMENT ☐
	ECOSYSTEM RESTORATION ☐	RECREATION ☐
	WILDLIFE HABITAT ☐	OTHER:
	DESCRIPTION: Create a shaded fuel break on the steep slopes within the Wildland Urban Interface in order to reduce the Wildfire Threat in the area. The area should have a Wildfire Threat Rating of Moderate once treatment is complete. Steep slopes prevent the safe use of machinery for treatment.	
STRATEGIES:	Lower wildfire hazard of the stand by reducing the canopy bulk density, reducing surface fuels, and through the removal of ladder fuels.	
METHODS: Hand treat using chainsaws and brushsaws, remove some layer 1, all layers 2, 3, and 4 Fdi & Lw (> 0.4m). Prune remaining stems. Pile debris and burn during appropriate smoke windows.		

C. TREATMENT UNIT (TU) SUMMARY							
TU	NET AREA (ha)	GROSS AREA (ha)	LEAVE AREAS (ha)	NP (ha)	NAR (ha)	TREATMENT REGIME (i.e. PRU, THIN, PIL, BURN)	GENERAL DESCRIPTION
S1	17.2	17.4	0.2	0	0	PRU, THIN, PIL, BURN	Steep slope with low volume timber.
TOTALS	17.2	17.4	0.2	0	0		

D. SITE CHARACTERISTICS							
TU	CFFBPS FUEL TYPE	TIMBER TYPE	BGC SUBZONE, VARIANT & SITE ASSOC.	ELEVATION RANGE (m)	SLOPE POSITION	SLOPE RANGE (%)	ASPECT
S1	C-7	FdLw	IDFdm2/01	900-1040	Lower to middle	25-65	North
FUEL TYPE DETERMINATION		Ground Truthed					

E. SOIL CHARACTERISTICS							
TU	SOIL TEXTURE	DUFF DEPTH (cm)	COARSE FRAGMENTS (%)	SOIL DISTURBANCE LIMIT (%)	SOIL HARZARD RATING		
					Compaction	Erosion	Displacement
S1	*To be determined snow free.						

F. VALUES – FOREST AND RANGE PRACTICES ACT				
RIPARIAN & LAKESHORE AREAS - Forest Planning and Practices Regulation (FPPR) division 3, Government Action Regulation (GAR) section 6, Forest and Range Practices Act (FRPA) sections 180 and 181				
Is the proposed cutting, modification or removal of trees, or site preparation, in an area that contains streams, lakes or wetlands?	Yes	No ✓	No riparian features in TU. TRIM is wrong.	
RIPARIAN MANAGEMENT AREAS (RMAs) - FPPR sections 51 and 52				
STREAM, LAKE, WETLAND ID	CLASS	RRZ (m)	RMZ (m)	SPECIFICATIONS FOR RIPAIRAN OR LAKESHORE MANAGEMENT AREAS
				TRIM data shows a stream in TU, however it does not exist on the ground.
TEMPERATURE SENSITIVE STREAMS - FPPR section 53, GAR section 15, FRPA sections 180 and 181				
Are there temperature sensitive streams or direct tributaries to temperature sensitive streams within or adjacent to the proposed treatment area?	Yes	No ✓		
ROAD CONSTRUCTION IN RIPARIAN MANAGEMENT AREAS - FPPR section 50				
Is road construction proposed in riparian management areas within the treatment area or an associated road permit (RP)?	Yes	No ✓		
STREAM CROSSINGS - FPPR section 55				
Will stream crossings be constructed within the proposed treatment area or a road permit road providing access to the treatment area?	Yes	No ✓		
MAINTAINING STREAM BANK AND CHANNEL STABILITY ON S4, S5, and S6 STREAMS - FPPR section 52 (2)				
Is the proposed treatment in the RMZ of an S4, S5 or S6 stream that is directly tributary to an S1, S2 or S3 stream and the activity is likely to contribute significantly to the destabilization of the stream bank or the stream channel?	Yes	No ✓		

DOMESTIC WATER LICENCES (inside or outside of community watershed) - FPPR section 59				
Does the proposed treatment area contain water sources that are diverted for human consumption by a licensed waterworks?	Yes	No		
		✓		
LICENCED WATER WORKS (inside or outside of a community watershed) - FPPR section 60				
Does the proposed treatment include areas that are within 100 m of a licensed waterworks?	Yes	No		
		✓		
FISHERIES SENSITIVE WATERSHED - GAR section 14, FPPR section 8.1				
Are any activities proposed within a fisheries sensitive watershed?	Yes	No		
		✓		
COMMUNITY WATERSHED - GAR section 8, FPPR section 8.2, 61, 62 and 84				
Does the proposed treatment area include areas that are within a community watershed?	Yes	No		
		✓		
Will this project require road construction or deactivation within a community watershed?	Yes	No		
		✓		
WATERSHED ASSESSMENT CONSIDERATIONS - FRPA section 180 areas with "significant watershed sensitivity"				
Does the proposed treatment area include areas that have watershed assessment considerations?	Yes	No		
		✓		
SOIL DISTURBANCE AND PERMANENT ACCESS STRUCTURES - FPPR sections 35 and 36				
Treatment Unit	Proposed Max. Allowable Soil Disturbance (%) (5% or 10%)	Proposed Max. Soil Disturbance for Roadside Work Areas (%)	Proposed Max. Permanent Access Structures (%)	Comments
S1	5%	/	/	No roads or trails will be built. No heavy machinery will be used.
Do the proposed Permanent Access Structures exceed 7% of the total area?	Yes	No		
		✓		
LANDSLIDES AND TERRAIN STABILITY - FPPR section 37				
Does the proposed treatment area include areas where terrain stability is a concern?	Yes	No		
		✓		
SUITABLE SECONDARY STRUCTURE - FPPR section 43.1				
Does the proposed treatment area include a "targeted pine leading stand"?	Yes	No		
		✓		
UNGULATE WINTER RANGE - GAR section 12, FRPA sections 180 and 181, FPPR section 69				

Does the proposed treatment area include areas within an Ungulate Winter Range?	Yes ✓	No	UWR OF, MF dry: This area is within the Ungulate Winter Range guidelines as identified in UWR order U-4-006. The scheduled treatment will enhance the grass communities located in this area and are consistent with Open Forest and Managed Forest guidelines. No merchantable stems will be removed.
WILDLIFE HABITAT AREA - GAR section 10, FRPA sections 180 and 181, FPPR section 69			
Does the proposed treatment area include any wildlife habitat areas (WHA)?	Yes	No ✓	
OBJECTIVES SET BY GOVERNMENT FOR WILDLIFE - FPPR section 7			
Does the proposed treatment area include areas to which objectives for wildlife under FPPR section 7 apply?	Yes ✓	No	<p><u>Canada Anemone</u>: Blue listed in BC. Treatment will not cause significant soil disturbance.</p> <p><u>Hairstem Groundsmoke</u>: Historically found in the area. Red listed in BC. Treatment will not cause significant soil disturbance.</p> <p><u>American Badger</u>: No dens were seen during fieldwork. Harvesting will open the stand, reduce in-growth, and maintain a lower stocking level. Badger dens discovered require a 5m MFZ, unless a maternal den is found, which requires a WTP of at least 50m. Ensure that any den dug under a tree with the roots of that tree for support has a MFZ large enough that the tree will not be cut, or a reserve placed around it.</p> <p><u>Caribou</u>: The coarse layer of federally identified critical wildlife layer occurs in the TU, "however, not all of the area within these boundaries is necessarily critical habitat" (Environment Canada). The finer filters of Caribou management identified by the KBHLP and the Mountain Caribou GAR Order #U-4-013 are not present within the TU. No management action needed.</p>
OBJECTIVES SET BY GOVERNMENT FOR BIODIVERSITY OBJECTIVES (Landscape Level) - FPPR section 9			
Does the proposed treatment area include areas to which objectives for landscape level biodiversity under FPPR section 9 apply?	Yes ✓	No	<p>The structural characteristics of the TU after treatment will resemble a stand that would result from a natural disturbance such as a low intensity fire. No merchantable stems will be cut. LU C03 is not listed as a LU that is to be managed for mature forest targets in the KBHLP. Low Biodiversity Emphasis.</p> <p>The TU is not within an identified OGMA.</p>
OBJECTIVES SET BY GOVERNMENT FOR BIODIVERSITY OBJECTIVES (Stand Level) - FPPR section 9.1			
Are considerations for maintaining stand structure (wildlife trees, wildlife tree reserves, etc.), coarse woody debris, and maintaining tree and vegetation species composition incorporated into this prescription?	Yes ✓	No	See CWD section. See Wildlife tree section. (FSP strategy and targets needed)
RECREATION FEATURES - FRPA section 56 and 149, FPPR section 70			

Does the proposed treatment area contain interpretive sites, recreation trails, recreation sites, recreation facilities that are considered to be of significant recreation value and are designated a resource feature?	Yes	No ✓	Too steep for recreational opportunities.
VISUAL QUALITY OBJECTIVES - GAR section 7, FRPA sections 180 and 181, FPPR section 9.2			
Is the proposed treatment within a scenic area?	Yes ✓	No	Retention VQO polygon. This TU should be included in the VIA to be completed for the adjacent TU H6.
ARCHAEOLOGICAL RESOURCES/CULTURAL HERITAGE RESOURCES - FPPR section 10			
Are there any known archaeological sites or cultural heritage resources that are important to First Nations within the proposed area?	Yes	No ✓	No AOA polygons in TU. Protection of any identified cultural heritage site from disturbance or destruction is required under the <i>Heritage Conservation Act</i> . Forest management practices will cease if culturally or archaeologically significant resource features are discovered during operations.
INVASIVE PLANTS - FRPA section 47 and FPPR section 17			
Is the introduction and spread of invasive plants likely as a result of the proposed treatment?	Yes ✓	No	Spotted knapweed, Canada thistle, Hound's-tongue and Dalmatian toadflax recorded on Wycliffe Park Road in the Invasive Alien Plant Program database. Burn piles should be seeded and mixed into burn pile material to improve germination and reduce the spread of invasive plant species.
NATURAL RANGE BARRIERS - FRPA section 48, FPPR section 18			
Are there natural range barriers within the proposed treatment area that are likely to be removed or rendered ineffective?	Yes	No ✓	No natural range barriers.
LAND USE OBJECTIVES (Higher Level Plans and objectives set by Government under the <i>Land Act</i>)			
Are there land use objectives (higher level plans or objectives under the <i>Land Act</i>) that apply to the proposed treatment area or a Road Permit necessary to provide access to the treatment area?	Yes ✓	No	Kootenay Boundary Higher Level Plan Order. Strategies to meet objectives are under the appropriate headings.
Do the proposed activities conflict with land use objectives (higher level plans or objectives under the <i>Land Act</i>)?	Yes	No ✓	

G. OTHER CONSIDERATIONS AND REQUIREMENTS			
CONSULTATION – FIRST NATIONS			
FIRST NATION		CONCERNS IDENTIFIED AND MEASURES TO ADDRESS	
Ktunaxa Nation Council		Negotiations need to be completed.	
First Nations consultation complete?		Yes	No ✓
		Consult with Ktunaxa Nation, Ktunaxa Bands, and Shuswap Band.	
CONSULTATION – GENERAL			

Adjacent Private land owners will need to be notified of operational activities.			
EXISTING TENURE HOLDERS (Forest, Range, Guide Outfitters, Trappers)			
Tenure Holder	Concerns		Measures proposed to address licensee's concerns
Trapline 1954132	Yes	No	Consultation Required.
Forest License: BC Timber Sales - Kootenay	Yes	No	Consultation Required.
Range: RAN077443 (Boardman)	Yes	No	Consultation Required.
Guiding Territory: 405G001 (Boardman)	Yes	No	Consultation Required.
PRIVATE PROPERTY			
Does private property border the proposed treatment area?	Yes ✓	No	Land surveys may have to be done when approaching property lines with the TU boundary.
SMOKE MANAGEMENT			
Does a smoke management plan exist for the proposed treatment area?	Yes ✓	No	Follow the Open Burning Smoke Control Regulation. The open burning of debris must be carried out at least 100 m from neighbouring residences and businesses. Burn debris under favourable weather for smoke dispersion.
SAFETY			
Have any specific safety concerns been identified in or adjacent to the proposed treatment area?	Yes ✓	No	Proper safety measure need to be in place when operating on steep slopes.
UTILITIES			
Are utilities located in or adjacent to the proposed treatment area? i.e. power lines, gas lines, etc.	Yes ✓	No	Underground, high pressure gas line within TU. No machinery is will be used in this treatment.
ACCESS CONTROL			
Are there any foreseen issues with access and access control during and post treatment?	Yes	No ✓	No new roads or trails will be built.
TRAFFIC CONTROL			
Is traffic control required at any point during operations?	Yes ✓	No	Signage notifying the public of industrial activity will be needed at the entrance to work sites.
OTHER			

H. STAND AND STOCK TABLE									
Species and Diameter Class		Average Crown to Base Height (m)	Average Tree Height (m)	STEMS PER HECTARE (sph)			VOLUME PER HECTARE (m ³ /ha)		
				Existing	Cut	Leave	Existing	Cut	Leave
Layer 1 (≥ 12.5 cm)									
Species		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Dead Potential		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Live		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total All Species		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Conifers		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Layer 1									
Total Layer - All Species		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Layer - Conifers Only		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Layer 2 (≥ 7.5 - 12.5cm dbh)									
Fd		4.50	10.67	267	267	0	N/A	N/A	N/A
Lw		4.50	10.67	67	67	0	N/A	N/A	N/A
Total Dead Potential		4.50	10.67	0	0	0	N/A	N/A	N/A
Total Live		4.50	10.67	334	334	0	N/A	N/A	N/A
Total Layer 2 - All Species		4.50	10.67	334	334	0	N/A	N/A	N/A
Total Layer 2 - Conifers Only		4.50	10.67	334	334	0	N/A	N/A	N/A
Layer 3 (≥ 1.3 m - 7.5cm dbh)									
Fd		1.00	4.00	1133	1133	0	N/A	N/A	N/A
Total Layer 3 - All Species		1.00	4.00	1133	1133	0	N/A	N/A	N/A
Total Layer 3 - Conifers		1.00	4.00	1133	1133	0	N/A	N/A	N/A
Layer 4 (<1.3 cm dbh)									
Fd		0.05	0.35	733	733	0	N/A	N/A	N/A
Total Layer 4 - All Species		0.05	0.35	733	733	0	N/A	N/A	N/A
Total Layer 4 - Conifers		0.05	0.35	733	733	0	N/A	N/A	N/A
* Add additional diameter classes if required									

SURFACE FUEL LOADING (kg/m ²)	Existing: Survey needed	Target:
	Distribution:	Distribution:
	Method used to measure:	
Crown Closure (%)	Existing: 50	Target: 30- 40

BIODIVERSITY AND FOREST HEALTH CONSIDERATIONS AND TARGETS	
COARSE WOODY DEBRIS (CWD) RETENTION TARGET - sph and Distribution	Up to 25 pieces/ha of CWD (>7.5cm at one end) may be left on site if elevated limbs are removed and are not crossing other CWD, these stems are a suitable source of CWD. Do not buck these pieces of CWD.
WILDLIFE TREE RETENTION TARGET	Reserve all trees with signs of recent wildlife use.
FOREST HEALTH	No significant forest health concerns identified.
TREATMENT SPECIFICATIONS SUMMARY	
TU	TREE REMOVAL/RETENTION STRATEGY BY SIZE/SPECIES (Summarize specifications identified in table above)
S1	Remove Layer 1 Fdi & Lw stems between 12.5-17.4, remove all Layer 2 Fdi & Lw, all Layer 3 Fdi & Lw, and all Layer 4 Fdi > 0.4m. In openings where there are no stems in the leave diameter classes, thin from below until existing stem crowns are spaced at a minimum of 5m.
TREATMENT SPECIFICATION RATIONALE (See notes to assist)	
Thinning from below is a cost effective way to lower stand density, remove ladder fuels, reduce forest ingress, and promote the health of residual trees. Reserving smaller stems in areas with no Layer 1 trees will create a shaded fuel break.	

I. TREATMENT DESCRIPTION
MERCHANTABLE TIMBER HARVEST
ROADS, LANDINGS AND TRAILS: none
FELLING: none
YARDING/SKIDDING: none
LOADING AND HAULING: none
SLASH DISPOSAL: none
SITE DISTURBANCE: only under burn piles.
SPECIAL MEASURES: none
STAND MODIFICATION TREATMENTS
MERCHANTABLE TIMBER UTILIZATION: Was commercial timber harvest considered? Yes ☒ No ☐ If commercial timber harvest not prescribed, explain: TU is on steep slopes with low volume timber.
BRUSHING: Chainsaw, brushsaw.
PRUNING: Prune all remaining coniferous stems (including Rocky Mountain Juniper) to a minimum of 2m from the ground surface or up to 50% of the live crown.
THINNING: Remove Layer 1 Fdi & Lw stems between 12.5-17.4, remove all Layer 2 Fdi & Lw, Layer 3 Fdi & Lw, and Layer 4 Fdi > 0.4m. In openings where there are no stems in the leave diameter classes, thin from below until existing stem crowns are spaced at a minimum of 5m.
DEBRIS PILING: Material will be piled on site concurrently with thinning operations. Pile all cut and pruned material in more open areas and away from retained trees and >100m from residences. Piles should be no larger than 3m

wide by 2m tall.

PILE BURNING: Burn debris piles so that $\geq 95\%$ of material is consumed during appropriate venting and fire danger conditions.

MULCHING: none

MASTICATION: none

GRINDING: none

PRESCRIBED FIRE: none

PLANTING: none

OTHER: Cut stems below the lowest live limb. Target is 20cm stump heights.

AUTHORIZATION AND TIMBER TENURE

FRPA Section 52: Application needed.

Forestry Licence to Cut (FLTC):

Park Use Permit: none

Road Permit or Road Use Permit: none

Other (i.e. local government, utilities, etc.):

J. POST TREATMENT

EXPECTED VEGETATION RESPONSE: Increase in grass and shrub communities. Minimal release of reserve stems.

ADDITIONAL TREATMENTS OR MAINTENANCE: Due to the steep slopes and Preservation VQO, this stand is not a good candidate for commercial harvesting. Pruning and removal of regeneration may be beneficial in maintaining the fuel break after 5-10 year.

SILVICULTURE OBLIGATIONS: Do silvicultural obligations apply to the treatment area? Yes ☐ No ☒

PLANTING: Is planting a treatment identified in this prescription or required as a legislative obligation? Yes ☐ No ☒

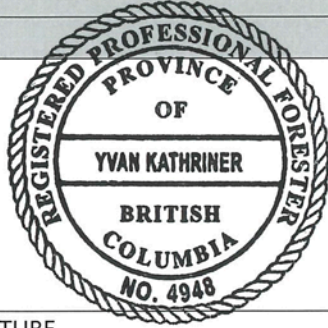
STOCKING STANDARDS

TU	Stocking Standard ID	Pref. Spp.	Acc. Spp.	Well Spaced Stem/ha				Minimum Height (m)			Regen Delay	Free Growing (years)
				TSS	MSS		MITD	PI	Others	RTH (%)		
					Pref. & Acc.	Pref.						

K. Outstanding Works

1. Field marking/GPSing of boundaries (may need legal land survey).
2. VIA (combined with TU H6).
3. Check RAAD for known heritage sites.
4. Section 52 application.
5. Consultation with adjacent residents and tenure holders.
6. Pre treatment WUI WTA plots and photos.
7. Pre treatment CWD/surface fuels survey.

Areas marked in orange will need further development.

L. ADMINISTRATION	
PREPARATION	
<p>Yvan Kathriner</p> <p>FOREST PROFESSIONAL NAME (Printed)</p> <p>4948</p> <p>MEMBER NUMBER</p>	  <p>FOREST PROFESSIONAL SIGNATURE</p> <p>March 23, 2018</p> <p>DATE</p>

M. ATTACHMENTS	
<p>MAPS : Yes ☒ No ☐</p> <p>WUI WTA Plots and Photos: Yes ☐ No ☒</p> <p>AIR PHOTOS/IMAGERY: Yes ☐ No ☐</p> <p>MODELING/DATA ANALYSIS: Yes ☐ No ☒</p> <p>TERRAIN STABILITY ASSESSMENT Yes ☐ No ☒</p> <p>Completed By:</p> <p>Date:</p> <p>ARCHAEOLOGY IMPACT ASSESSMENT Yes ☐ No ☒</p> <p>Completed By:</p> <p>Date:</p>	<p>FIELD DATA CARDS: Yes ☒ No ☐</p> <p>Recce CRUISE DATA: Yes ☒ No ☒</p> <p>AIR PHOTOS/IMAGERY: Yes ☐ No ☐</p> <p>MODELING/DATA ANALYSIS: Yes ☐ No ☒</p> <p>TERRAIN STABILITY ASSESSMENT Yes ☐ No ☒</p> <p>Completed By:</p> <p>Date:</p> <p>ARCHAEOLOGY IMPACT ASSESSMENT Yes ☐ No ☒</p> <p>Completed By:</p> <p>Date:</p>
<p>ADDITIONAL COMMENTS:</p>	