Fuel Management Prescription

A. PROJECT IDENTIFICATION	
PROJECT ID AND UNIT ID: Ktunaxa Nation Treaty Lands, Treatment Unit H5	LAND OR TENURE HOLDER: Provincial Crown Land, involved in treaty negotiations.
LATITUDE/LONGITUDE: 49°28'39.44"N, 115°45'59.44"W	GEOGRAPHIC DESCRIPTION: Hidden Valley Road
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 within the Wildland Urban Interface in order to reduce the wildfire threat in the area. The area must have a Wildfire Behaviour Threat Class of Moderate or lower, once treatment is complete..	
STRATEGIES:	Commercially thin the stand in order to fund the treatment. Modify the fuel component of the WUI Wildfire Threat Assessment worksheet in order to lower the Wildfire behaviour threat score	
METHODS: Mechanically harvest the stand using conventional methods (feller/buncher, rubber tire skidders). Retaining some of the most fire resistant tree species (Py, Lw, Fd) and all deciduous.		

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
H5	252.5	271.3	18.8	0	0	Harvest, PIL, BURN piles.	TU encompasses an entire hill that is elongated NE to SW. The crest and south slopes have rocky outcrops of bedrock and colluvium. The entire spectrum of aspects and slope positions can be found in the TU. About 3/4 of the perimeter is located on the private property of rural residences.
TOTALS	252.2	271.3	18.8	0	0		

D. SITE CHARACTERISTICS

TU	CFFBPS FUEL TYPE	TIMBER TYPE	BGC SUBZONE, VARIANT & SITE ASSOC.	ELEVATION RANGE (m)	SLOPE POSITION	SLOPE RANGE (%)	ASPECT
H5	C-7	FdLw 537	IDFdm2/01	1020-1180	Crest to toe	2-50	All
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
H5	***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 ✓	

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
Pyatts Lake	L1-B	10	0	
Plot 77 stream				Reserved from treatment, >10m from boundary.
Plot 79 stream				Reserved from treatment, >10m from boundary.
Ski Slough				Confirm if still actively used as a waterworks.

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 ✓	An existing road is within the RMZ of the W3 north of the TU. This road option has private land on both sides of the ROW. Any road maintenance activities must occur within the clearing width of the road.
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 ✓	

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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	Linear licensed water works located in NW corner of TU. Ensure that operations do not damage this licensed waterworks. Strategy to be determined during layout phase.
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
H5			25	7	***To be determined snow free.**
Do the proposed Permanent Access Structures exceed 7% of the total area?	Yes	No ✓	(8336m x 12m) / 2525000m^2 = 4.0%		
LANDSLIDES AND TERRAIN STABILITY - FPPR section 37					
Does the proposed treatment area include areas where terrain stability is a concern?	Yes ✓	No	Potentially unstable terrain polygon within TU. A Terrain stability assessment is required.		
SUITABLE SECONDARY STRUCTURE - FPPR section 43.1					
Does the proposed treatment area include a “targeted pine leading stand”?	Yes	No ✓			

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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	Southern aspects: OF, Largest diameter trees will be retained, final stocking level will be within 76-400 sph range. All other aspects: MF dry, CC≥20% needed. Analysis in an FSP needed to determine if landscape (C03) mature cover and snow intercept requirements are met.
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	American Badger: 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 50 m. If any active dens are found, try to avoid the area with machinery during the denning period. 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. Dainty Moonwort: Historically found in area. Blue listed in BC. Scarlet Gaura: Red listed in BC.
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	TU is >40 ha, The structural characteristics of the cutblock after timber harvesting will resemble an opening that would result from a natural disturbance such as a low intensity fire. Adjacent cut-blocks are greened up as defined in Objective 4 in the KBHLPO. LU C03 is not listed as a LU that is to be managed for mature forest targets in the KBHLPO. Low Biodiversity Emphasis. The TUs are not within an identified OGMA.
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	Active mountain biking trails within TU. Currently not sanctioned, but work may be underway to sanction the trails.
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	Partial Retention VQO. VIA should be completed to ensure that retention levels on the block will remain high enough to not cause an obvious visual intrusion and will resemble an opening that would result from natural disturbance.
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	High archaeological potential polygons C30-129, C30-130, and C30-131 in TU. An AIA will need to be completed and any recommendations followed. Protection of any identified cultural heritage site from disturbance or destruction is required under the *Heritage Conservation Act*. 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	Seeding of disturbed soil such as landings, cut slopes, and skid trails with native grass species after harvest operations will reduce the spread of invasive plants. Invasive alien plant program database shows Spotted Knapweed, Dalmatian Toadflax, and Blue Weed along the Hidden Valley Road.
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 *Land Act*)			
Are there land use objectives (higher-level plans or objectives under the *Land Act*) 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. Road Permit will be needed to construct and access the TUs.
Do the proposed activities conflict with land use objectives (higher-level plans or objectives under the *Land Act*)?	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 industrial activities.			

EXISTING TENURE HOLDERS (Forest, Range, Guide Outfitters, Trappers)			
Tenure Holder	Concerns		Measures proposed to address licensee's concerns
Trapline 1972892	Yes	No	**Consultation Required.**
Forest License: A19040 (CFP)	Yes	No	**Consultation Required.**
Range: RAN075121 (Bombardier)	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 ✓	Steep slopes have been removed from treatment.
UTILITIES			
Are utilities located in or adjacent to the proposed treatment area? i.e. power lines, gas lines, etc.	Yes ✓	No	Distribution line along Hidden Valley Road. Proposed road design helps to reduce the hazard. Transmission line 60L284 (60kV) runs through the TU. Maintain 3m limit of approach. A permit from BC Hydro will be needed to move machinery and logs through the ROW.
ACCESS CONTROL			
Are there any foreseen issues with access and access control during and post treatment?	Yes ✓	No	All bladed trails and spur roads must be fully rehabilitated and suitably grass seeded following completion of licensed operations.
TRAFIC 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 and at trail heads.
OTHER			

H. STAND AND STOCK TABLE

			STEMS PER HECTARE (sph)			VOLUME PER HECTRARE (m^3/ha)		
Species and Diameter Class	Average Crown to Base Height (m)	Average Tree Height (m)	Existing	Cut	Leave	Existing	Cut	Leave
Layer 1 (≥57.5 cm dbh)								
Species Fd	6	22.5	1.4	0.0	1.4	2.9	0.0	2.9
Species Pl	11	20	0.0	0.0	0.0	0.0	0.0	0.0
Species Py	8	22.5	0.0	0.0	0.0	0.0	0.0	0.0
Species Lw	12.3	22	0.0	0.0	0.0	0.0	0.0	0.0

Species and Diameter Class	Average Crown to Base Height (m)	Average Tree Height (m)	Existing	Cut	Leave	Existing	Cut	Leave
Total Dead Potential	9.3	22.4	0.0	0.0	0.0	0.0	0.0	0.0
Total Live	9.3	22.4	1.4	0.0	1.4	2.9	0.0	2.9
Total All Species	9.3	22.4	1.4	0.0	1.4	2.9	0.0	2.9
Total Conifers	9.3	22.4	1.4	0.0	1.4	2.9	0.0	2.9
Layer 1 (≥ 52.5 cm - 57.5 cm dbh)								
Species Fd	6	22.5	4.9	3.6	1.3	8.6	6.3	2.3
Species Pl	11	20	0	0.0	0.0	0.0	0.0	0.0
Species Py	8	22.5	0	0.0	0.0	0.0	0.0	0.0
Species Lw	12.3	22	0	0.0	0.0	0.0	0.0	0.0
Total Dead Potential	9.3	22.4	0	0.0	0.0	0.0	0.0	0.0
Total Live	9.3	22.4	4.9	3.6	1.3	8.6	6.3	2.3
Total All Species	9.3	22.4	4.9	3.6	1.3	8.6	6.3	2.3
Total Conifers	9.3	22.4	4.9	3.6	1.3	8.6	6.3	2.3
Layer 1 (≥ 47.5cm dbh – 52.4 cm dbh)								
Species Fd	6	22.5	5.9	4.3	1.6	9.1	6.6	2.5
Species Pl	11	20	0	0.0	0.0	0.0	0.0	0.0
Species Py	8	22.5	0	0.0	0.0	0.0	0.0	0.0
Species Lw	12.3	22	0	0.0	0.0	0.0	0.0	0.0
Total Dead Potential	9.3	22.4	0	0.0	0.0	0.0	0.0	0.0
Total Live	9.3	22.4	5.9	4.3	1.6	9.1	6.6	2.5
Total All Species	9.3	22.4	5.9	4.3	1.6	9.1	6.6	2.5
Total Conifers	9.3	22.4	5.9	4.3	1.6	9.1	6.6	2.5
Layer 1 (≥ 42.5 cm – 47.4 cm dbh)								
Species Fd	6	22.5	15.4	11.2	4.2	17.6	12.8	4.8
Species Pl	11	20	0	0.0	0.0	0.0	0.0	0.0
Species Py	8	22.5	0	0.0	0.0	0.0	0.0	0.0
Species Lw	12.3	22	0	0.0	0.0	0.0	0.0	0.0
Total Dead Potential	9.3	22.4	0	0.0	0.0	0.0	0.0	0.0
Total Live	9.3	22.4	15.4	11.2	4.2	17.6	12.8	4.8
Total All Species	9.3	22.4	15.4	11.2	4.2	17.6	12.8	4.8
Total Conifers	9.3	22.4	15.4	11.2	4.2	17.6	12.8	4.8
Layer 1 (≥ 37.5cm dbh – 42.5 cm dbh)								
Species Fd	6	22.5	25.2	18.4	6.8	22.6	16.5	6.1
Species Pl	11	20	0	0.0	0.0	0.0	0.0	0.0
Species Py	8	22.5	0.8	0.6	0.2	0.8	0.6	0.2
Species Lw	12.3	22	0	0.0	0.0	0.0	0.0	0.0
Total Dead Potential	9.3	22.4	0	0.0	0.0	0.0	0.0	0.0
Total Live	9.3	22.4	26	19.0	7.0	23.4	17.1	6.3
Total All Species	9.3	22.4	26	19.0	7.0	23.4	17.1	6.3

Species and Diameter Class	Average Crown to Base Height (m)	Average Tree Height (m)	Existing	Cut	Leave	Existing	Cut	Leave
Total Conifers	9.3	22.4	26	19.0	7.0	23.4	17.1	6.3
Layer 1 (≥ 32.5 cm – 37.4 cm dbh)								
Species Fd	6	22.5	32.5	23.7	8.8	22.3	16.3	6.0
Species Pl	11	20	0	0.0	0.0	0.0	0.0	0.0
Species Py	8	22.5	0	0.0	0.0	0.0	0.0	0.0
Species Lw	12.3	22	3.4	2.5	0.9	2.3	1.7	0.6
Total Dead Potential	9.3	22.4	0	0.0	0.0	0.0	0.0	0.0
Total Live	9.3	22.4	36	26.3	9.7	24.6	18.0	6.6
Total All Species	9.3	22.4	36	26.3	9.7	24.6	18.0	6.6
Total Conifers	9.3	22.4	36	26.3	9.7	24.6	18.0	6.6
Layer 1 (≥ 27.5cm dbh – 32.4 cm dbh)								
Species Fd	6	22.5	39.8	29.1	10.7	19.1	13.9	5.2
Species Pl	11	20	0	0.0	0.0	0.0	0.0	0.0
Species Py	8	22.5	1.6	1.2	0.4	0.8	0.6	0.2
Species Lw	12.3	22	10.4	7.6	2.8	5.9	4.3	1.6
Total Dead Potential	9.3	22.4	0	0.0	0.0	0.0	0.0	0.0
Total Live	9.3	22.4	51.8	37.8	14.0	25.7	18.8	6.9
Total All Species	9.3	22.4	51.8	37.8	14.0	25.7	18.8	6.9
Total Conifers	9.3	22.4	51.8	37.8	14.0	25.7	18.8	6.9
Layer 1 (≥ 22.5 cm – 27.4 cm dbh)								
Species Fd	6	22.5	69	50.4	18.6	22.9	16.7	6.2
Species Pl	11	20	2.5	1.8	0.7	0.9	0.7	0.2
Species Py	8	22.5	0	0.0	0.0	0.0	0.0	0.0
Species Lw	12.3	22	22	16.1	5.9	7.9	5.8	2.1
Total Dead Potential	9.3	22.4	2.2	1.6	0.6	0.7	0.5	0.2
Total Live	9.3	22.4	93.5	68.3	25.2	31.7	23.1	8.6
Total All Species	9.3	22.4	95.7	69.9	25.8	32.4	23.7	8.7
Total Conifers	9.3	22.4	95.7	69.9	25.8	32.4	23.7	8.7
Layer 1 (≥ 17.5cm dbh - 22.4 cm dbh)								
Species Fd	6	22.5	123.3	90.0	33.3	23.1	16.9	6.2
Species Pl	11	20	5.8	4.2	1.6	1.6	1.2	0.4
Species Py	8	22.5	0	0.0	0.0	0.0	0.0	0.0
Species Lw	12.3	22	60.8	44.4	16.4	11.8	8.6	3.2
Total Dead Potential	9.3	22.4	4.1	3.0	1.1	0.5	0.4	0.1
Total Live	9.3	22.4	189.9	138.6	51.3	36.6	26.7	9.9
Total All Species	9.3	22.4	194	141.6	52.4	37.1	27.1	10.0
Total Conifers	9.3	22.4	194	141.6	52.4	37.1	27.1	10.0
Layer 1 (≥ 12.5 cm - 17.4 cm dbh)								
Species Fd	6	22.5	75	54.8	20.3	5.4	3.9	1.5

Species and Diameter Class	Average Crown to Base Height (m)	Average Tree Height (m)	Existing	Cut	Leave	Existing	Cut	Leave
Species Pl	11	20	0	0.0	0.0	0.0	0.0	0.0
Species Py	8	22.5	0	0.0	0.0	0.0	0.0	0.0
Species Lw	12.3	22	53	38.7	14.3	3.8	2.8	1.0
Total Dead Potential	9.3	22.4	16.8	12.3	4.5	1.3	0.9	0.4
Total Live	9.3	22.4	127.9	93.4	34.5	9.2	6.7	2.5
Total All Species	9.3	22.4	144.7	105.6	39.1	10.5	7.7	2.8
Total Conifers	9.3	22.4	144.7	105.6	39.1	10.5	7.7	2.8
Total Layer 1								
Total Layer - All Species	9.3	22.4	575.7	420.3	155.4	191.8	140.0	51.8
Total Layer - Conifers Only	9.3	22.4	575.7	420.3	155.4	191.8	140.0	51.8
Layer 2 (≥ 7.5 - 12.5 dbh)								
Species Fd	4.82	9.81	252	252	0	N/A	N/A	N/A
Species Lw	4.82	9.81	162	162	0	N/A	N/A	N/A
Total Dead Potential	0.0	0.0	0	0	0	N/A	N/A	N/A
Total Live	4.82	9.81	414	414	0	N/A	N/A	N/A
Total Layer 2 - All Species	4.82	9.81	414	414	0	N/A	N/A	N/A
Total Layer 2 - Conifers Only	4.82	9.81	414	414	0	N/A	N/A	N/A
Layer 3 (≥ 1.3m - 7.5cm dbh)								
Fd	2.48	5.15	341	341	0	N/A	N/A	N/A
Lw	2.48	5.15	86	86	0	N/A	N/A	N/A
Total Layer 3 - All Species	2.48	5.15	427	427	0	N/A	N/A	N/A
Total Layer 3 - Conifers	2.48	5.15	427	427	0	N/A	N/A	N/A
Layer 4 (<1.3m)								
Fd	0.13	0.67	183	183	0	N/A	N/A	N/A
Lw	0.13	0.67	7	7	0	N/A	N/A	N/A
Pl	0.13	0.67	7	7	0	N/A	N/A	N/A
Total Layer 4 - All Species	0.13	0.67	197	197	0	N/A	N/A	N/A
Total Layer 4 - Conifers	0.13	0.67	197	197	0	N/A	N/A	N/A
* Add additional diameter classes if required								

SURFACE FUEL LOADING (kg/m^2)	Existing: **Survey needed** Distribution:	Target: Distribution:
	Method used to measure:	
Crown Closure (%)	Existing: 60	Target: 30-40

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BIODIVERSITY AND FOREST HEALTH CONSIDERATIONS AND TARGETS	
COARSE WOODY DEBRIS (CWD) RETENTION TARGET - sph and Distribution	A minimum of 4 pieces of CWD per hectare will be retained and undamaged, each being a minimum of 2 m in length and 7.5 cm in diameter at one end, up to a maximum of 10% CWD coverage. Uneconomic wood created from harvesting activities such as breakage, short pieces, and wood that is considered un-merchantable will contribute to coarse woody debris. CWD retention will consider all decay stages and will also include stumps and expose root wads. Deciduous stems are to remain standing as much as practicable and if required to be felled will remain on site to contribute to CWD and biodiversity objectives.
WILDLIFE TREE RETENTION TARGET	Up to 5 dead wildlife trees will be retained per hectare. Wildlife tree signs will be posted on high value snags to deter firewood cutting in areas considered to be at high risk from firewood cutters.
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)
H5	Reserve stems >57.5cm dbh. Space crowns at least 3m apart giving preference to Lw and then Py for leave trees. Intercrown spacing target is to be met before sph target - where trees have large crowns, this will result in less than 155sph, where trees have small crowns, this will result in more than 155sph. Leave trees at a range of diameters that will be windfirm and not get snow pressed. Where natural clumps of Fd vets occur, leave all veteran trees, and then space 3m around the clump. Reserve all broadleaf tree species, no need to space 3m off broadleaf trees. Minimize damage to reserve trees of all layers.

TREATMENT SPECIFICATION RATIONALE (See notes to assist)

Prefer Py and Lw for its windthrow and fire resistance. 3m crown spacing will reduce the likelihood of a crown fire spreading from tree to tree and maintain a shaded fuel-break. Clumps of Fd vets are common and typically have few stems regenerating within their "drip line", have self-pruned, and have thick bark - creating a favourable stand structure. Broadleaf trees are naturally fire resistant and maintain higher humidity around them. Sph estimates are based on crown radiuses of 2.5m with a 3m gap, resulting in the removal of 73% of the stems in Layer 1.

I. TREATMENT DESCRIPTION
MERCHANTABLE TIMBER HARVEST
ROADS, LANDINGS AND TRAILS: New road to be constructed. Roadside processing opportunities.
FELLING: Feller/buncher. Use caution when operating near private property, distribution and transmission lines. Do not leave any danger trees within one tree length of roads, power lines, or fences.
YARDING/SKIDDING: Ground based. Do not avoid travelling machinery through thickets of understory Fd stems, as this will cause some thinning of the thickets.
LOADING AND HAULING: loading at roadside. Haul route to be determined based on seasonal road restrictions.
SLASH DISPOSAL: mechanically pile debris. Burn during appropriate weather conditions for venting and fire danger.
SITE DISTURBANCE: all bladed trails and spur roads must be fully rehabilitated and suitably grass seeded following completion of licensed operations. Rehab must comply with requirements from sections 35(6) and 35(7) of the FPPR. Temporary Access structures combined with disturbance caused by random skidding and falling must not exceed 10% of the net area.

Nupqu DEVELOPMENT CORPORATION

Fuel Management Prescription

BRITISH COLUMBIA Ministry of Forests, Lands and Natural Resource Operations

SPECIAL MEASURES:
STAND MODIFICATION TREATMENTS
MERCHANTABLE TIMBER UTILIZATION: Was commercial timber harvest considered? Yes ☒ No ☐ If commercial timber harvest not prescribed, explain:
BRUSHING: sufficient amount will occur through normal mechanized harvesting operations.
PRUNING: sufficient amount will occur through normal mechanized harvesting operations. If a Moderate or Low wildfire behaviour threat class is not achieved, additional pruning is an option to achieve this objective.
THINNING: sufficient amount will occur through normal mechanized harvesting operations.
DEBRIS PILING: leave on site, spread out large or elevated accumulations. If a Moderate or Low wildfire behaviour threat class is not achieved, piling and burning debris is an option to achieve this objective.
PILE BURNING: Debris created from processing will have to be piled and burned.
MULCHING: none.
MASTICATION: none.
GRINDING: none.
PRESCRIBED FIRE: none.
PLANTING: none.
OTHER:
AUTHORIZATION AND TIMBER TENURE ***Type of Tenure to be used is to be determined**
FRPA Section 52:
Forestry Licence to Cut (FLTC):
Park Use Permit:
Road Permit or Road Use Permit:
Other (i.e. local government, utilities, etc.):

J. POST TREATMENT
EXPECTED VEGETATION RESPONSE: Increase in grass and brush foliage. Mortality expected in damaged reserve trees in all layers. A second harvest entry is not excepted for over 30 years.
ADDITIONAL TREATMENTS OR MAINTENANCE: 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	Pl	Others	RTH (%)		
					Pref. & Acc.	Pref.						
H5	1050163											

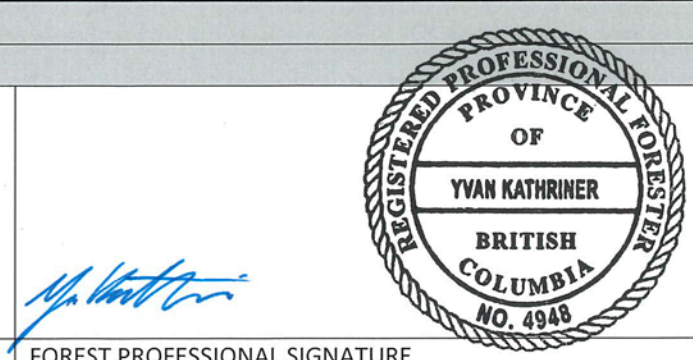
K. Outstanding Works
1. Soil hazard ratings. 2. Field marking/GPSing of harvest boundaries and road centerlines (may need legal land survey). 3. VIA required. 4. AIA required, check RAAD for known heritage sites. 5. Conform to the FSP of the license holder.

6. Cutting Permit & Appraisal.
7. Road layout and design, Road Permit.
8. Consultation with adjacent residents and tenure holders.
9. Find a strategy to protect the licensed water works.
10. Terrain Stability Assessment.
11. Contact Mountain biking community to determine if there is work being done to improve or sanction the trails within the TU.
12. Pre-treatment CWD/Surface fuel survey
13. Pre-treatment WUI WTA.
14. BC Hydro permit to operate under the transmission line.
15. Riparian assessments and management of streams.

Areas marked in orange will need further development.

L. ADMINISTRATION

PREPARATION

Yvan Kathriner	
FOREST PROFESSIONAL NAME *(Printed)*	FOREST PROFESSIONAL SIGNATURE
4948	March 23, 2018
MEMBER NUMBER	DATE

M. ATTACHMENTS

MAPS :	Yes ☒ No ☐	FIELD DATA CARDS:	Yes ☒ No ☐
WUI WTA Plots and Photos:	Yes ☐ No ☒	Recce CRUISE DATA:	Yes ☒ No ☐
AIR PHOTOS/IMAGERY:	Yes ☐ No ☒	BURN PLAN:	Yes ☐ No ☒
MODELING/DATA ANALYSIS:	Yes ☐ No ☒	OTHER:	Yes ☐ No ☒
TERRAIN STABILITY ASSESSMENT Completed By: Date:	Yes ☐ No ☒	VISUAL IMPACT ASSESSMENT Completed By: Date:	Yes ☐ No ☒
ARCHAEOLOGY IMPACT ASSESSMENT Completed By: Date:	Yes ☐ No ☒	BIOLOGIST ASSESSMENT Completed By: Date:	Yes ☐ No ☒

ADDITIONAL COMMENTS: