

A. PROJECT INDENTIFICATION	
PROJECT ID AND UNIT ID: Face Paska Fuel Management Project: Fuel Treatment Unit (FTU) FP1, FP2, FP3 & FP4	LAND OR TENURE HOLDER:  Provincial Crown Land consisting of the following tenures:  • FP1: Thompson Rivers Forest District (No tenure holder)
	<ul> <li>FP2 and FP3: Logan Lake Community Forest</li> <li>FP4: BC Timber Sales Operating Area</li> <li>Authorizations for treatments will include the following:</li> <li>FP1 and FP4: Forestry License to Cut (FLTC)</li> <li>FP2 and FP3: LLCF Cutting Permit</li> </ul>
LATITUDE/LONGITUDE:	GEOGRAPHIC DESCRIPTION:
50.53315°N	In the immediate vicinity of Face and Paska Lakes. 15 km
120.64251°W	northwest of Logan Lake, BC
HIGHER-LEVEL PLAN(s):	MAP REFERENCE NUMBER:
Logan Lake Community Forest: Forest Stewardship Plan #649 (FSP, 2020) Logan Lake Community Forest: Wildfire Risk Management Plan (WRMP, 2018)	921.057.2.4.3, 921.057.2.4.1
Kamloops Land and Resource Management Plan (LMRP, 1995)	

### **B. PROJECT DESCRIPTION**

#### OBJECTIVE:

The Face Paska community is located northeast of Logan Lake, BC adjacent to Face and Paska Lakes. This residential and recreational area was identified as high risk from wildfire impacts and as a priority location for fuel management by the Logan Lake Wildfire Risk Management Plan (WRMP, 2018) and the BC Wildfire Service's Provincial Strategic Threat Analysis (PSTA) dataset. Further field reconnaissance identified Fuel Treatment Units (FTUs) FP1, FP 2, FP 3 and FP4, based on fuels, topography, administrative boundaries, and the location of values at risk. All four units are located adjacent to private residences and a popular resort. Treatments are intended to increase public safety while providing for other values such as cultural, recreational, visual and ecological in the area.

Although wildfires are a natural component of these forest ecosystems, the proximity of the forest fuels in these FTUs to residences and other values poses considerable risks warranting mitigation. Spruce-pine forests that characterize the Face Paska area are dense and capable of sustaining crown fires under critical fire weather. The area was severely impacted by the mountain pine beetle (Dendroctonus ponderosae) epidemic in 2003, causing significant mortality of lodgepole pine (Pinus contorta). Salvage logging was conducted in many stands near the lakes, however the forest directly adjacent to the lakes and community have received limited fuels mitigation, and significant hazard remains. Pine-beetle-related mortality and associated increases in windthrow have altered surface fuel loads by depositing dry, dead and downed logs, branches, and needles, which become available to burn under a wider range of conditions and with high intensity. Similarly, standing dead trees in the canopy can easily propagate fire vertically into the crowns of adjacent trees, and serve to lower the overall moisture content of the aerial fuels. Surface fuel loads are generally highest in openings where windthrow is concentrated, and added sunlight accelerates their drying. The ember showers and flames that could be produced by fires burning in these FTUs could overwhelm fire suppression capabilities and threaten human life and safety in the community. The remote nature of the Face Paska area and its location on a dead-end road is such that entrapment during an evacuation is possible and long suppression response times are likely.

These fuel management treatments will seek to reduce wildfire threat by creating a buffer of treated area directly adjacent to the community, mitigating future fire severity and creating more fire-resistant stand





### **B. PROJECT DESCRIPTION**

structures and may also enhance the resilience of the forest ecosystems present, by reducing the risk of total deforestation and soil sterilization in a single severe wildfire event.

Prescriptions have been written to balance a range of considerations, including hydrological concerns, windthrow risks, visuals, wildlife habitat, commercial tourism, and recreation values.

#### Specific wildfire objectives include:

- Reduce surface fire intensity to below critical thresholds for crown fire initiation;
- Reduce potential for passive (e.g. torching) and active crowning and associated ember production;
- Create better and safer suppression opportunities for fire personnel; and
- Create safer evacuation conditions within the community.

#### Social, cultural, and environmental objectives include:

- Retain a healthy and resilient forested ecosystem in all units;
- Minimize the risk of negative hydrological impacts associated with treatment operations and/or post-treatment conditions;
- Protect identified First Nations cultural and archaeological features
- Manage for visual quality and recreation values.

#### STRATEGIES:

The following strategies will be used to reduce wildfire threat with considerations for other values.

#### **Reduction in surface fuel loading:**

Remove excessive surface fuel loads to reduce surface fireline intensity and flame residence time and thereby:

- Increase the chances of tree survival by reducing heating of the cambium and foliage;
- Reduce the potential for severe soil effects and seed-bed destruction; and
- Reduce the potential for passive (e.g. torching) and active crown fire behavior through reduction in degree of potential aerial fuel preheating.

#### Increased canopy base height:

Prune low branches and remove suppressed understory trees to increase the separation between surface and canopy fuels (the "strata gap"). This separation increases the fire intensity and flame lengths necessary to sufficiently heat aerial fuels to their ignition temperature, and thereby decreases the potential for crown fire initiation. Low branches and foliage can also act as "ladder fuels" which propagate fire vertically into tree crowns, and their removal further decreases the ability of a crown fire to initiate within the stand.

### Reduction in standing dead trees:

Remove standing dead trees not designated as high-value wildlife trees or culturally significant trees to reduce passive and active crown fire hazard. Dead trees contain less moisture in their tissues than live trees, and thus burn and propagate fire vertically more readily. They also pose significant safety hazards to fire personnel during suppression and mop-up operations, as their roots are more easily compromised by fire, and they are often more difficult and dangerous to fall in a controlled manner. Removal of existing standing dead trees will also decrease the overall continuity of aerial fuels, further decreasing the likelihood of crown fire initiation and spread.

#### **Retention of live overstory:**

Retain all live, healthy overstory trees except those that must be removed for operational or safety considerations. This approach is designed to achieve the following:

- Minimize windthrow risks in the post-treatment stand;
- Minimize hydrological impacts associated with treatment;
- Provide for wildlife habitat values;
- Maintain recreational and visual-quality values associated with forested stands; and





### **B. PROJECT DESCRIPTION**

• Provide for continued surface fuel shading to minimize ignition risk.

### **METHODS:**

#### Field Marking:

The external boundary of this FTU was marked with orange flagging printed with **FOREST FUEL TREATMENT AREA**. Machine Free Zones (MFZ) are marked with orange ribbon printed with **MACHINE FREE ZONE**. Wildlife Tree Retention Areas (WTRA) are marked with orange **WILDLIFE TREE PATCH** ribbon.

### Field Sampling/Data Collection:

Stand inventory information was collected through a combination timber cruise and fixed radius inventory plots on a 100x100 m grid (1 plot/ha). At each plot location, mature tree (Layer 1) timber data was collected using a BAF prism, while understory stem information (Layer 2-4) was collected using a 3.99 m fixed radius plot. Surface fuel loading information was collected using visual estimation/Photo Guide for Quantifying Forest Stands in British Columbia #501 and #502.

**Fuel Treatment**: **Hand and/or Small Machine** – A fuel treatment will be completed using hand crews and small equipment. Activities may include:

- Hand felling of standing dead trees and danger trees;
- Hand spacing of understory stems (<12.5 cm DBH);</li>
- Pruning of branches;
- Bucking and stacking of logs;
- · Debris piling, and
- Open burning.

C. TREAT	C. TREATMENT UNIT (TU) SUMMARY								
FTU	NET TREATMENT AREA (ha)	GROS S AREA (ha)	LEAVE AREAS (ha)	NP (ha)	NAR (ha)	TREATMENT REGIME (i.e. prune, thin, pile, burn)	GENERAL DESCRIPTION		
FP1	3.4	3.7	0.3	-	3.4		Mixed conifer stands dominated by hybrid spruce (Sx) and lodgepole pine (PI) with a minor component of aspen		
FP2	3.2	3.7	0.5	-	3.2	Hand falling,	(At) and subalpine fir (BI). Significant mortality of PI caused by mountain pine beetle has resulted in a high proportion		
FP3	11.0	11.8	0.5	0.3	11.0	understory spacing, pruning, machine piling, and open burning.	of standing dead in the canopy and high volumes of dead surface debris where trees have fallen. Terrain is generally flat with minor slopes of 5 – 10%. Forest		
FP4	15.4	16.6	1.2	-	15.4		floor vegetation is primarily red- stemmed feathermoss, bunchberry, and twinflower. FP3 and FP4 are within Lakeshore Management Zone (LMZ) of Face Lake.		
TOTALS	33.0	35.8	2.6	0.3	33.0				





D. SIT	D. SITE CHARACTERISTICS									
TU	CFFBPS FUEL TYPE	TIMBER TYPE	BGC SUBZONE, VARIANT & SITE ASSOC.	ELEVATION RANGE (m)	SLOPE POSITION	SLOPE RANGE (%)	ASPECT			
FP1	C2/S1	SxPI (BIAt)	MS xk2 06 (70%), 01 (20%), 08 (10%)	1450 – 1480	Flat/lower slope	0-10%	Variable			
FP2	C2/S1	SxPl (BIAt)	MS xk2 01 (90%), 08(10%)	1475 – 1500	Flat/lower slope	0-15%	SE/SW			
FP3	C2/S1	SxPl (BIAt)	MS xk2 06	1460 – 1530	Flat/lower slope	0-32%	E			
FP4	C2/S1	SxPI (BIAt)	07(70%)   1460 – 1500   Flat/lower slope   W							
This site is not an exact match for any specific CFFDRS fuel type, but the often accepted fuel type for such stands is C2¹. In some larger openings created by pine mortality in the TUs, S1 may be more representative of potential fire behavior. As a result, targets set in this prescription (i.e. removal of dead standing/blowdown trees, reduction in surface fuel loading, 3 m pruning height to the lowest branch, surface fuels not elevated, and managing fuels up to 20 cm diameter) meet or exceed BCWS requirements and are designed to create significant reduction in potential wildfire intensity and severity.										

E. SOIL	E. SOIL CHARACTERISTICS									
	con	LFH	COARCE	SOIL	SOI	L HARZARD R	ATING			
TU	SOIL TEXTURE	DEPTH (cm)	COARSE FRAGMENTS (%)	DISTURBANCE LIMIT (%)	Compaction	Erosion	Displacement			
FP1	SiL	5.5	60	10	High	High	Low			
FP2	LS	6	40	10	Low	Moderate	Moderate			
FP3	SiCL	6	20	5	Very High	High	Low			
FP4	SCL	6	15	5	Very High	Moderate	Moderate			

F. VALUES – FOREST AND RA	F. VALUES – FOREST AND RANGE PRACTICES ACT						
RIPARIAN & LAKESHORE AREAS	- Forest Pl	anning	g and Practices Regulation (FPPR) division 3, Government Action Regulation				
(GAR) section 6, Forest and Rang	e Practice	s Act (F	FRPA) sections 180 and 181				
Is the proposed cutting,	Yes	No					
modification or removal of	Х	X The FTUs are located adjacent to Face and Paska Lakes and several					
trees, or site preparation, in an			classifiable stream features. Riparian management requirements are				
area that contains streams,	area that contains streams, outlined below.						
lakes or wetlands?							
RIPARIAN MANAGEMENT AREAS (RMAs) and LAKESHORE MANAGEMENT AREAS (LMAs) - FPPR sections 51 and 52; GAR							
section 6, Kamloops Lakes Local Resource Use Plan (LRUP)							

 $<sup>^{\</sup>rm 1}$  British Columbia Wildfire Fuel Typing and Fuel Type Layer Description (2017).





F. VALUES – FOREST AND RA	NGE PRA	CTICES	SACT			
STREAM, LAKE, WETLAND ID	CLASS	RRZ (m)	RMZ/RMA (m)	SPECIFICATIONS FOR RIPARAN MANAGEMENT AREAS (RMAs) and/or LAKESHORE MANAGEMENT AREAS (LMAs)		
Face Lake (FP3 and FP4) Paska Lake (FP1 and FP2)	L1-B (FPPR)/ B (LRUP)	10	10 (RMA)	FP1, FP2, FP3, and FP4 overlap with the Lakeshore Management Zones (LMZ) of Face Lake (Class B, Kamloops LRUP) and Paska Lake (Class B, Kamloops LRUP). The treatment approach will only utilize hand crews and/or small equipment. No new road construction is proposed. This will meeting LMZ requirements.  The Visual Quality Objective for the portion of treatment areas overlapping the LMZ is Retention and will be achieved by the proposed treatments.		
S2-1 (FP1) – Paska Creek	S2	30	20 (RMZ)	The block is a minimum 30 m from the edge of this feature. Within the RMZ, no new roads will be constructed and ≥25% of the basal area within the riparian management zone will be retained as standing trees that are reasonably representative of the physical structure of the riparian area before treatment.		
S4-1 (FP2)	\$4	0	20 (RMZ)	The block is a minimum 10 m from the edge of this feature. Within the RMZ, no new roads will be constructed and ≥25% of the basal area within the riparian management zone will be retained as standing trees that are reasonably representative of the physical structure of the riparian area before treatment.		
S4-1 (FP4)	S4	0	20 (RMZ)	The block is a minimum 10 m from the edge of this feature. Within the RMZ, no new roads will be constructed and ≥25% of the basal area within the riparian management zone will be retained as standing trees that are reasonably representative of the physical structure of the riparian area before treatment.		
W3-1 (FP1)	W3	10	The block is a minimum 10 m from the edge of this feature Within the RMZ, no new roads will be constructed and ≥25% of the basal area within the riparian management zone will be retained as standing trees that are reasonably representative of the physical structure of the riparian area before treatment			
NCW-1 (FP1)	NCW	0	0	This feature has been excluded from the treatment area.		
NCW-1 (FP2)	NCW	0	0	This feature has been excluded from the treatment area.		
NCW-1 (FP4)	NCW	0	0	This feature has been placed into a 7 m minimum MFZ.		
TEMPERATURE SENSITIVE STREA	MS - FPPI	R section	on 53, GAR se	ection 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 X	There are streams present adjacent to several of the treatment units, but do not fit the criteria of temperature sensitive as defined in these regulations.			
ROAD CONSTRUCTION IN RIPARIAN MANAGEMENT AREAS - FPPR section 50						
Is road construction proposed in riparian management areas within the treatment area or	Yes	No X	There is no new road construction proposed within riparian management areas in any of the four treatment units.			





F. VALUES – FOREST AND RAM	IGE PRA	CTICES	SACT
an associated road permit (RP)?			
STREAM CROSSINGS – FPPR section	on 55	•	
Will stream crossings be constructed within the proposed treatment area or a road permit road providing access to the treatment area?	Yes	No X	No new stream crossings will be constructed within or to access the treatment area.
MAINTAINING STREAM BANK AN	D CHANI	NEL ST	ABILITY 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 X	The proposed treatments are within the RMZ of S4 streams in FP2 and FP4. Both S4 streams are a minimum of 5 m outside the treatment area.
<del>-</del>	de or out	side 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 X	There are no known water PODs within the proposed treatment areas. Verified on iMap BC January 7, 2021.
LICENCED WATER WORKS (inside	or outsid	le of a	community watershed) – FPPR section 60
Does the proposed treatment include areas that are within 100 m of a licensed waterworks?	Yes	No X	There is water licenses located 150 m away from FP1 on the north shore of Paska Lake. Verified on iMap BC January 7, 2021. Domestic water licenses are managed by conducting operations on frozen ground and minimizing removal of live overstory trees that contribute to hydrologic function.
FISHERIES SENSITIVE WATERSHED	<b>)</b> – GAR s	ection	14, FPPR section 8.1
Are any activities proposed within a fisheries sensitive watershed?	Yes	No X	The proposed treatment areas are not within a fisheries sensitive watershed. Verified on iMap BC January 7, 2021.
<b>COMMUNITY WATERSHED</b> – GAR	section 8	3, FPPR	section 8.2, 61, 62 and 84
Does the proposed treatment area include areas that are within a community watershed?	Yes	No X	The proposed treatment areas are not within a community watershed. Verified on iMap BC January 7, 2021.
Will this project require road construction or deactivation within a community watershed?	Yes	No X	N/A
WATERSHED ASSESSMENT CONS	DERATIC	NS – F	RPA section 180 areas with "significant watershed sensitivity"
Does the proposed treatment area include areas that have watershed assessment considerations?	Yes	No X	The FTUs do not include areas with watershed assessment considerations as defined in FRPA section 180. However, as part of the prescription development process, a Professional Hydrologist was consulted and provided recommendations/input on plans for fuel management in the Face Paska area. In order to manage for watershed values, the following strategies will be utilized:





			dead st function  Treatme equipme ground  No new	randing trees (a), ents will be co ent only (i.e. disturbance and	primarily targeted towards blowdown and (which do not contribute to hydrologic impleted using hand crews and/or small no commercial harvesting) to minimize d impacts to healthy overstory.  on is proposed. Some new small equipment quired.				
SOIL DISTURBANCE AND PERMANENT ACCESS STRUCTURES - FPPR sections 35 and 36									
Treatment Unit	Propo Ma: Allowa Soi Disturb (5% or	x. able I ance	Proposed Max. Soil Disturbance for Roadside Work Areas (%)	Proposed Max. Permanent Access Structures (%)	Comments				
FP1	10		25	0%	There are no permanent access structures proposed in this unit.				
FP2	10	١	25	0%	There are no permanent access structures proposed in this unit.				
FP3	5		25	0%	There are no permanent access structures proposed in this unit.				
FP4	5		25	0%	There are no permanent access structures proposed in this unit.				
Do the proposed Permanent Access Structures exceed 7% of the total area?	Yes	No X	See above.						
LANDSLIDES AND TERRAIN STABI	L <b>ITY</b> - FPF	R sect	ion 37						
Does the proposed treatment area include areas where terrain stability is a concern?	Yes	No X	The proposed tre		re located in gentle terrain with no known				
SUITABLE SECONDARY STRUCTUR	E - FPPR	sectio	n 43.1						
Does the proposed treatment area include a "targeted pine leading stand"?	Yes	No X			s Section 43.1 does not apply. Timber dicates that stands in these FTUs are not				
UNGULATE WINTER RANGE - GAR	section	12, FRF	PA sections 180 and	d 181, FPPR sec	tion 69				
Does the proposed treatment area include areas within an Ungulate Winter Range?	Yes No		proposed or app January 7, 2021.	roved Ungulate	o not overlap any area designated as Winter Range. Verified on iMap BC				
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)?	7, 2021.								
OBJECTIVES SET BY GOVERNMEN	T FOR W	ILDLIFE							
Does the proposed treatment area include areas to which objectives for wildlife under FPPR section 7 apply?	Yes	No X	under FPPR secti There is one spe	on 7 exist (CDC ecies of concerr	rlap any areas where objectives for wildlife iMap BC; January 7, 2021.).  n to local residents identified in the area, which is yellow listed and secure in BC <sup>2</sup> .				

<sup>&</sup>lt;sup>2</sup> BC Species and Ecosystems Explorer. 2021. <a href="http://a100.gov.bc.ca/pub/eswp/">http://a100.gov.bc.ca/pub/eswp/</a>





Does the proposed treatment area include areas to which objectives for landscape level biodiversity under FPPR section 9 apply?  **The FTU overlaps a Natural Disturbance Type 4 area, which are ecosystems with frequent, low intensity, stand maintaining fires. Treatment activities will emulate the stand conditions that would be expected by a natural fire regime in biogeoclimatic sub zone.  **OBJECTIVES SET BY GOVERNMENT FOR BIODIVERSITY OBJECTIVES (Stand Level) - FPPR section 9.1  **Are considerations for maintaining stand structure (wildlife trees, wildlife trees and vegetation species composition incorporated into this prescription?  **RECREATION FEATURES - FRPA section 56 and 149, FPPR section 70**  **RECREATION FEATURES - FRPA section 56 and 149, FPPR section 70**  **Pes X**  **No Part of the mainline access roads associated with this project overlapt the Face Paska ORV Trails and Lac Ie Jeune Snowmobile Trails. The LLCFC will obtain a Sections 16 Authorization from the District Recreation Officer prior to commencement of treatment work. The following measures will be used to manage active recreation trails; recreation facilities that are considered to be of significant recreation value and are designated a resource feature?  **District Recreation Signage shall be posted to warn trail users of the in the area, and these traffic control measures are put in place to control and protect public and worker safety. During active treatment operations, signage shall be posted to warn trail users of the in the area, and these traffic control measures shall be clearly visible to traffic coming from all directions.  **All equipment must be in good working condition, and free from invasive species prior to commencement of work.**  **Minimize upgrades and clearing allowing for safe operations on all permit road sections that overlap designated trails.**  **Trails m	Does the proposed treatment area include areas to which objectives for landscape level biodiversity under FPPR section 9 apply?  **No papply?**  **OBJECTIVES SET BY GOVERNMENT FOR BIODIVERSITY OBJECTIVES (Stand Level) - FPPR section 9.1  **Are considerations for maintaining structure (wildlife trees, wildlife tree reserves, etc.), coarse woody debris, and maintaining tree and vegetation species composition incorporated into this prescription?  **RECREATION FEATURES - FRPA section 56 and 149, FPPR section 70  **No part of the mainline access roads associated with this project overlap the Face Paska ORV Trails and Lac le Jeune Snowmobile Trails. The LLCFC will obtain a Sections 16 Authorization from the District Recreation Officer prior to commencement of treatment work. The following measures will be used to manage active recreation trails, recreation facilities that are considered to be of significant recreation value and services and natural Disturbance Type 4 area, which are ecosystems with frequent, low intensity, stand maintaining fires. Treatment activities with frequent, low intensity, stand maintaining fires. Treatment activities with frequent, low intensity, stand maintaining fires. Treatment activities with frequent, low intensity, stand maintaining fires. Treatment activities with frequent, low intensity, stand maintaining fires. Treatment activities will emulate the stand conditions that would be expected by a natural fire regime in biogeoclimatic sub zone.  **No Part of the mainline access roads associated with this project overlap the Face Paska ORV Trails and Lac le Jeune Snowmobile Trails. The LLCFC will obtain a Section 16 Authorization from the District Recreation Officer prior to commencement of treatment work. The following measures will be used to manage active rec	OBJECTIVES SET BY GOVERNMENT	FOR BIG	ODIVE	One known/recent occurrence (approximately 100 juveniles) was identified near treatment area FP2 on September 3, 2019³. As a result, no assessments/surveys are required as this species' presence is already confirmed in the general area of all FTUs, and will be managed accordingly. The following management strategies will be utilized for Western toad:  • No large equipment is proposed for use. Hand crews and/or small equipment only.  • All classifiable riparian features have been excluded from the treatment areas or placed into machine free zones where appropriate,  • No new roads are proposed for construction  RSITY OBJECTIVES (Landscape Level) - FPPR section 9
will emulate the stand conditions that would be expected by a natural fire regime in biogeoclimatic sub zone.    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?    RECREATION FEATURES - FRPA section 56 and 149, FPPR section 70    No	will emulate the stand conditions that would be expected by a natural fire regime in biogeoclimatic sub zone.  will emulate the stand conditions that would be expected by a natural fire regime in biogeoclimatic sub zone.  will emulate the stand conditions that would be expected by a natural fire regime in biogeoclimatic sub zone.  will emulate the stand conditions that would be expected by a natural fire regime in biogeoclimatic sub zone.  will emulate the stand conditions that would be expected by a natural fire regime in biogeoclimatic sub zone.  No Pert of the maintenance of the maintenance of the maintenance of the proposed treatment area contain interpretive sites, recreation facilities that are considered to be of significant recreation value and  will emulate the stand conditions that would be expected by a natural fire regime in biogeoclimatic sub zone.  will emulate the stand conditions that would be expected by a natural fire regime in biogeoclimatic sub zone.  will emulate the stand conditions that would be expected by a natural fire regime in biogeoclimatic sub zone.  will emulate the stand conditions that would be expected by a natural fire regime in biogeoclimatic sub zone.  No  All live Layer 1 conifers and deciduous stems will be retained except for those required to felled for operational or safety purposes. See Stand and Stock Table for details.  **All live Layer 1 conifers and deciduous stems will be retained except for those required to felled for operational or safety purposes. See Stand and Stock Table for details.  **All live Layer 1 conifers and deciduous stems will be retained except for those required to felled for operational or safety purposes. See Stand and Stock Table for details.  **All live Layer 1 conifers and deciduous stems will be retained except for those required to felled for operational or safety purposes. See Stand and Stock Table for details.  **All live Layer 1 conifers and deciduous stems will be retained except for those required to felled for operational or safety p	Does the proposed treatment area include areas to which	Yes		The FTU overlaps a Natural Disturbance Type 4 area, which are ecosystems
Are considerations for maintaining stand structure (wildlife tree reserves, etc.), coarse woody debris, and maintaining tree and vegetation species composition incorporated into this prescription?  RECREATION FEATURES - FRPA section 56 and 149, FPPR section 70  Yes X  Part of the mainline access roads associated with this project overlap the Face Paska ORV Trails and Lac le Jeune Snowmobile Trails. The LLCFC will obtain a Sections 16 Authorization from the District Recreation Officer prior to commencement of treatment area contain interpretive sites, recreation trails, recreation sites, recreation trails, recreation sites, recreation trails, recreation sites, recreation trails, recreation are designated a resource feature?  All live Layer 1 conifers and deciduous stems will be retained except for those required to felled for operational or safety purposes. See Stand and Stock Table for details.  Part of the mainline access roads associated with this project overlap the Face Paska ORV Trails and Lac le Jeune Snowmobile Trails. The LLCFC will obtain a Sections 16 Authorization from the District Recreation Officer prior to commencement of treatment work. The following measures will be used to manage active recreation trails:  • The treatment contractor must ensure that proper traffic control measures are put in place to control and protect public and worker safety. During active treatment operations, signage shall be posted to warn trail users of the in the area, and these traffic control measures shall be clearly visible to traffic coming from all directions.  • All equipment must be in good working condition, and free from invasive species prior to commencement of work.  • Minimize upgrades and clearing allowing for safe operations on all permit road sections that overlap designated trails.  • Trails must remain in good condition and passable at the end of treatment operations. Any trail surface impacts must be repaired by the contractor and drainage control (water bars) installed if	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?  RECREATION FEATURES - FRPA section 56 and 149, FPPR section 70  Yes X  No Part of the mainline access roads associated with this project overlap the Face Paska ORV Trails and Lac le Jeune Snowmobile Trails. The LLCFC will obtain a Sections 16 Authorization from the District Recreation Officer prior to commencement of treatment work. The following measures will be used to manage active recreation trails:  • The treatment contractor must ensure that proper traffic control measures are put in place to control and protect public and worker safety. During active treatment operations, signage shall be posted to warn trail users of the in the area, and these traffic control measures shall be clearly visible to traffic coming from all directions.	biodiversity under FPPR section			will emulate the stand conditions that would be expected by a natural fire
maintaining stand structure (wildlife trees, wildlife tree reserves, etc.), coarse woody debris, and maintaining tree and vegetation species composition incorporated into this prescription?  RECREATION FEATURES - FRPA section 56  X  X  No Part of the mainline access roads associated with this project overlap the Face Paska ORV Trails and Lac le Jeune Snowmobile Trails. The LLCFC will obtain a Sections 16 Authorization from the District Recreation Officer prior to commencement of treatment work. The following measures will be used to manage active recreation trails:  • The treatment contractor must ensure that proper traffic control measures are put in place to control and protect public and worker safety. During active treatment operations, signage shall be posted to warn trail users of the in the area, and these traffic control measures shall be clearly visible to traffic coming from all directions.  • All equipment must be in good working condition, and free from invasive species prior to commencement of work.  • Minimize upgrades and clearing allowing for safe operations on all permit road sections. Any trail surface impacts must be repaired by the contractor and drainage control (water bars) installed if	maintaining stand structure (wildlife trees, wildlife tree reserves, etc.), coarse woody debris, and maintaining tree and vegetation species composition incorporated into this prescription?  RECREATION FEATURES - FRPA section 56 and 149, FPPR section 70  Yes X  Part of the mainline access roads associated with this project overlap the Face Paska ORV Trails and Lac le Jeune Snowmobile Trails. The LLCFC will obtain a Sections 16 Authorization from the District Recreation Officer prior to commencement of treatment work. The following measures will be used to manage active recreation trails:  The treatment contractor must ensure that proper traffic control measures are put in place to control and protect public and worker safety. During active treatment operations, signage shall be posted to warn trail users of the in the area, and these traffic control measures shall be clearly visible to traffic coming from all directions.	OBJECTIVES SET BY GOVERNMENT	FOR BIG	ODIVER	RSITY OBJECTIVES (Stand Level) - FPPR section 9.1
RECREATION FEATURES - FRPA section 56 and 149, FPPR section 70  Yes X  Does the proposed treatment area contain interpretive sites, recreation trails, recreation facilities that are considered to be of significant recreation value and are designated a resource feature?  The treatment contractor must ensure that proper traffic control measures shall be clearly visible to traffic coming from all directions.  All equipment must be in good working condition, and free from invasive species prior to commencement of work.  Minimize upgrades and clearing allowing for safe operations on all permit road sections that overlap designated trails.  Trails must remain in good condition and passable at the end of treatment operations. Any trail surface impacts must be repaired by the contractor and drainage control (water bars) installed if	Yes X Part of the mainline access roads associated with this project overlap the Face Paska ORV Trails and Lac le Jeune Snowmobile Trails. The LLCFC will obtain a Sections 16 Authorization from the District Recreation Officer prior to commencement of treatment work. The following measures will be used to manage active recreation trails:  • The treatment contractor must ensure that proper traffic control measures are put in place to control and protect public and worker safety. During active treatment operations, signage shall be posted to warn trail users of the in the area, and these traffic control measures shall be clearly visible to traffic coming from all directions.	maintaining stand structure (wildlife trees, wildlife tree reserves, etc.), coarse woody debris, and maintaining tree and vegetation species composition incorporated into this		No	those required to felled for operational or safety purposes. See Stand and
Face Paska ORV Trails and Lac le Jeune Snowmobile Trails. The LLCFC will obtain a Sections 16 Authorization from the District Recreation Officer prior to commencement of treatment work. The following measures will be used to manage active recreation trails:  • The treatment contractor must ensure that proper traffic control measures are put in place to control and protect public and worker safety. During active treatment operations, signage shall be posted to warn trail users of the in the area, and these traffic control measures shall be clearly visible to traffic coming from all directions.  • All equipment must be in good working condition, and free from invasive species prior to commencement of work.  • Minimize upgrades and clearing allowing for safe operations on all permit road sections that overlap designated trails.  • Trails must remain in good condition and passable at the end of treatment operations. Any trail surface impacts must be repaired by the contractor and drainage control (water bars) installed if	Face Paska ORV Trails and Lac le Jeune Snowmobile Trails. The LLCFC will obtain a Sections 16 Authorization from the District Recreation Officer prior to commencement of treatment work. The following measures will be used to manage active recreation trails:  The treatment contractor must ensure that proper traffic control measures are put in place to control and protect public and worker safety. During active treatment operations, signage shall be posted to warn trail users of the in the area, and these traffic control measures shall be clearly visible to traffic coming from all directions.	RECREATION FEATURES - FRPA sec	ction 56 a	and 149	9, FPPR section 70
necessary to maintain natural drainage patterns.  VISUAL QUALITY OBJECTIVES - GAR section 7, FRPA sections 180 and 181, FPPR section 9.2	<ul> <li>Minimize upgrades and clearing allowing for safe operations on all permit road sections that overlap designated trails.</li> <li>Trails must remain in good condition and passable at the end of treatment operations. Any trail surface impacts must be repaired by the contractor and drainage control (water bars) installed if necessary to maintain natural drainage patterns.</li> </ul>	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 X	No	Part of the mainline access roads associated with this project overlap the Face Paska ORV Trails and Lac le Jeune Snowmobile Trails. The LLCFC will obtain a Sections 16 Authorization from the District Recreation Officer prior to commencement of treatment work. The following measures will be used to manage active recreation trails:  • The treatment contractor must ensure that proper traffic control measures are put in place to control and protect public and worker safety. During active treatment operations, signage shall be posted to warn trail users of the in the area, and these traffic control measures shall be clearly visible to traffic coming from all directions.  • All equipment must be in good working condition, and free from invasive species prior to commencement of work.  • Minimize upgrades and clearing allowing for safe operations on all permit road sections that overlap designated trails.  • Trails must remain in good condition and passable at the end of treatment operations. Any trail surface impacts must be repaired by the contractor and drainage control (water bars) installed if necessary to maintain natural drainage patterns.

 $<sup>^{\</sup>rm 3}$  IMAP BC. 2021. Amphibians – Incidental Observations layer.





Is the proposed treatment within a scenic area?	Yes x	No	The proposed treatment units overlap a Partial Retention (PR) VQO polygon. Verified on iMap BC January 7, 2021. Additionally, the VQO for the portion of treatment areas overlapping the LMZ is increased to Retention.  A Visual Impact Assessment was completed during prescription development and determined the proposed treatments would meet the VQOs.			
ARCHAEOLOGICAL RESOURCES/C	ULTURA	L HERIT	**AGE RESOURCES - FPPR section 10			
,	Yes	No	The proposed fuel treatment units were referred to all potentially affected			
Are there any known archaeological sites or cultural heritage resources that are important to First Nations within the proposed area?	x		First Nations based on the provincial Consultative Area Database (June 5, 2019). A response was received from four First Nations communities. A Preliminary Field Reconnaissance process was completed, which identified areas of archaeological potential within the treatment areas. All necessary amendments were completed to manage for the identified sites, and final prescriptions and maps provided to First Nations for final confirmation.			
INVASIVE PLANTS - FRPA section	47 and Ff	PPR sec	tion 17			
Is the introduction and spread of invasive plants likely as a result of the proposed treatment?	Yes X	No	<ul> <li>There are known invasive plants in the surrounding area; examples being bull thistle and burdock spp. The following measures will be used to mitigate spread of invasive plants.</li> <li>All equipment must be clean/free of invasive plant material before entering the work site,</li> <li>Any areas of disturbed soil should be planted with Common Number 1 Forage Mixture specification within 1 year of completion of treatment activities,</li> <li>Hand/small machine constructed burn piles must be placed at least 5 meters horizontal distance away from the road right of way, and</li> <li>Treatment crews should be knowledgeable in identification of invasive plants and report any discovered during treatments.</li> </ul>			
NATURAL RANGE BARRIERS - FRP	A section	1 48, FF	PR section 18			
Are there natural range barriers within the proposed treatment area that are likely to be removed or rendered ineffective?	Yes	No X	The treatments will not remove any 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 <i>Land Act</i> ) that apply to the proposed treatment area or a Road Permit necessary to provide access to the treatment area?	Yes X	No	Lakeshore Management Zone (Kamloops Lakes LRUP): FP1, FP2, FP3, and FP4 overlap with the Lakeshore Management Zones (LMZ) of Face Lake (Class B, Kamloops LRUP) and Paska Lake (Class B, Kamloops LRUP). See the riparian management section above for lakeshore management zone provisions.  A Visual Impact Assessment was completed and determined the treatments will meet the VQOs.			
Do the proposed activities conflict with land use objectives (higher level plans or objectives under the <i>Land Act</i> )?	Yes	No X	The treatment activities do not conflict with any higher level plan objectives.			
MIGRATORY BIRD CONVENT	ION AC	T.				





Are the proposed activities in conflict with regulations set in the Migratory Bird Convention Act?	Yes X	No	All blocks overlap risk Rank 4 Migratory Bird Nest Habitat polygons.  Treatment is to occur outside of May 15 - July 20 to protect the nesting window.
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G. OTHER CONSIDERATIONS AND REQUIREMENTS					
CONSULTATION – FIRST NATIONS					
First Nations consultation complete?	Yes X	No	The proposed fuel treatment units were referred to all potentially affected First Nations based on the provincial Consultative Area Database (June 5, 2019). A response was received from four First Nations organizations, and field reviews were completed for all FTUs. All required amendments have been completed and feedback incorporated into the final prescription.  If a previously unidentified site is encountered during operations, work is to stop until measures can be implemented to manage for archaeological/cultural features.		
			·		

### **GENERAL PUBLIC CONSULTATION**

The Face Paska community was notified of the treatment activities beginning with an Open House in August 2019, and various independent communications and meetings with residents during 2020 and 2021. The LLCF hosted a second Open House in March 2021 (virtually), co-presenting with BC Timber Sales about the proposed treatments, which was recorded and posted on the LLCF website. The LLCF will maintain ongoing communications with the Face Paska residents during the course of treatments.

EXISTING TENURE HOLDERS (Forest, Ran	ge, Guid	e Outfitt	ters, Trappers)
Tenure Holder	Cond	cerns	Measures proposed to address licensee's concerns
	Yes	No	Concerns raised with removal of live trees around the community,
A41 411 1 D	X		and proximity of operations to resort. The LLCF is managing the
Mile High Resort			removal of live trees through use of hand crews/small equipment
			only (i.e. no commercial harvest equipment) and will maintain
	.,		dialogue with Mile High Resort throughout duration of treatments.
Gordon Garthwaite	Yes	No	N/A
		X	
High Kelly Ranches	Yes	No	N/A
	.,	X	
Indian Gardens Ranch	Yes	No	N/A
		X	·
Lower Nicola Indian Band Trapline	Yes	No	N/A
		X	
Kamloops Snowmobile Club	Yes	No	N/A
·		Х	·
Thompson Valley ORV Club	Yes	No	N/A
		X	·
Logan Lake ATV Club	Yes	No	N/A
		Х	,
PRIVATE PROPERTY			
	Yes	No	All treatment units are in close proximity to private land.
Does private property border the	х		Treatments are designed to significantly reduce wildfire hazard to
proposed treatment area?			adjacent residences and improve overall safety. All treatment unit
proposed treatment area:			boundaries exclude private land to avoid trespassing.





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G. OTHER CONSIDERATIONS AND RE	QUIRE	VIENTS	
			The access to FTU FP1 will require use of a private driveway. The
			LLCF has discussed use of the driveway with the landowner, and will
			ensure a signed agreement is in prior to commencing treatments.
SMOKE MANAGEMENT			
	Yes	No	The LLCF has a Smoke Management Plan to guide fuel management
Does a smoke management plan exist	Х		projects. This plan will provide guidance for operational crews
for the proposed treatment area?			based on the open burning smoke control regulations within the
			Environmental Management Act.
SAFETY			
Have any specific safety concerns been identified in or adjacent to the proposed treatment area?	Yes X	No	Recreation activity within the treatment area during operations poses a safety hazard to the public. Treatment areas will be closed off to public access during work and treatment contractor shall post signs warning of treatment activities at all entry points. The LLCFC will provide advance notification to community members of the location and timelines of treatment operations.
UTILITIES			
Are utilities located in or adjacent to the proposed treatment area? i.e. power lines, gas lines, etc.	Yes X	No	FP1 and FP2 are within close proximity to power lines along Paska Lake Rd. Treatment contractors must ensure no trees are felled within 1.5 tree lengths of power lines. LLCF will obtain approval for work along powerlines from BC Hydro.
ACCESS CONTROL			
Are there any foreseen issues with access and access control during and post treatment?	Yes	No X	Any new access points created by treatment or road building will be de-activated post-treatment. All newly constructed roads will be fully rehabilitated.
TRAFFIC CONTROL			
Is traffic control required at any point during operations?	Yes	No X	No traffic control will be required.
OTHER CONSIDERATIONS			
<b>Daily Timing Restriction</b> : As operations Saturday, and 8pm-10 am Sunday.	are clos	e to res	idences, no machinery is to be operated from 8 pm-7 am Monday-

H. STAND AND STOCK TABLE - Fuel Ti	eatment U	nit FP1						
	Average Crown to	Average Tree	STEMS PE	ER HECTAF	RE (SPH)	VOLUM	E PER HE( (m³/ha)	CTRARE
Species and Diameter Class	Base Height (m)	Height (m)	Existing	Cut	Leave	Existing	Cut	Leave
Layer 1A (> 40.0 cm DBH) - No trees of thi	s size class w	vere record	ed by stand	linventory	plots.			
Layer 1B (27.5 cm – 39.9 cm DBH)								
Species PI	28.8	28.8	160	160	0	-	-	-
Species Sx	10	28	40	5	35	-	-	-
Total Live (Healthy)	10	28	40	5	35	-	-	-
Total Live (Suppressed)	-	-	0	0	0	-	-	-
Total Dead	28.8	28.8	160	160	0	-	-	-
Total All Species	19.4	28.4	200	165	35	-	-	-
Total Conifers	19.4	28.4	200	165	35	-	-	-





	Average Crown to	Average Tree	STEMS PE	ER HECTAI	RE (SPH)	VOLUM	E PER HE (m³/ha)	CTRARE
Species and Diameter Class	Base Height (m)	Height (m)	Existing	Cut	Leave	Existing	Cut	Leave
Layer 1C (22.5 cm - 27.4 cm DBH)								
Species PI	15	22	40	5	35	-	-	-
Species Sx	7	27	80	10	70	-	-	-
Total Live (Healthy)	11	24.5	120	15	105	-	-	-
Total Live (Suppressed)	-	-	0	0	0	-	-	-
Total Dead	-	-	0	0	0	-	-	-
Total All Species	11	24.5	120	15	105	-	-	-
Total Conifers	11	24.5	120	15	105	-	-	-
Layer 1D (17.5 cm DBH - 22.4 cm DBH)								
Species PI	23	23	120	120	0	-	-	-
Species Sx	6	22	40	5	35	-	-	-
Total Live (Healthy)	6	22	40	5	35	-	-	-
Total Live (Suppressed)	-	-	0	0	0	-	-	-
Total Dead	23	23	120	120	0	-	-	-
Total All Species	14.5	22.5	160	125	35	-	-	-
Total Conifers	11	24.5	160	125	35	-	-	-
Layer 1E (12.5 cm - 17.4 cm DBH)	<b>'</b>	•						
Species Pl	-	-	0	0	0	-	-	-
Species Sx	8	18.5	80	10	70	-	-	-
Total Live (Healthy)	8	18.5	80	10	70	-	-	-
Total Live (Suppressed)	-	-	0	0	0	-	-	-
Total Dead	-	-	0	0	0	-	-	-
Total All Species	8	18.5	80	10	70	-	-	-
Total Conifers	8	18.5	80	10	70	-	-	-
Total Layer 1 (≥ 12.5 cm DBH)								
Total Layer - All Species	13.2	23.5	560	315	245	-	-	-
Total Layer - Conifers Only	12.3	24	560	315	245	-	-	-
Layer 2 (7.5 cm - 12.4 cm DBH)								
Species PI	16	16	120	120	0	-	-	-
Species Sx	2.8	11	160	40	120	-	-	-
Total Live (Healthy)	2.8	11	160	40	120	-	-	-
Total Live (Suppressed)	-	-	0	0	0	-	-	-
Total Dead	16	16	120	120	0	-	-	-
Total All Species	9.4	13.5	280	160	120	-	-	-
Total Conifers	9.4	13.5	280	160	120	-	-	_





H. STAND AND STOCK TABLE - Fuel	Treatment U	nit FP1						
	Average Crown to	Average Tree	STEMS PI	ER HECTAI	RE (SPH)	VOLUME PER HECTRARE (m³/ha)		
Species and Diameter Class	Base Height (m)	Height (m)	Existing	Cut	Leave	Existing	Cut	Leave
Species PI	-	-	0	0	0	-	-	-
Species Sx	1.4	3.9	440	160	280	-	-	-
Species BI	0	2	40	40	0	-	-	-
Total Live (Healthy)	0.2	3.3	320	40	280	-	-	-
Total Live (Suppressed)	0	2.5	80	80	0	-	-	-
Total Dead	6.8	6.8	80	80	0	-	-	-
Total All Species	0.7	2.9	480	200	280	-	-	-
Total Conifers	0.7	2.9	480	200	280	-	-	-
Layer 4 (< 1.3 m tall)								
Species PI	-	-	0	0	0	-	-	-
Species Sx	-	1	200	100	100	-	-	-
Total Live (Healthy)	-	1	200	100	100	-	-	-
Total Live (Suppressed)	-	-	0	0	0	-	-	-
Total Dead	-	-	0	0	0	-	-	-
Total All Species	-	1	200	100	100	-	-	-
Total Conifers	-	1	200	100	100	-	-	-





	Average Crown to	Average Tree	STEMS P	ER HECTAI	RE (SPH)	VOLUM	E PER HE (m³/ha)	CTRARE
Species and Diameter Class	Base Height (m)	Height (m)	Existing	Cut	Leave	Existing	Cut	Leave
Layer 1A (> 40.0 cm DBH) – No trees of the	nis size class v	were record	led by stand	d inventor	y plots.			
Layer 1B (27.5 cm – 39.9 cm DBH)								
Species PI	-	-	0	0	0	-	-	-
Species Sx	18.5	25	133	70	63	-	-	-
Species BI	-	-	0	0	0	-	-	-
Total Live (Healthy)	12	25	66	3	63	-	-	-
Total Live (Suppressed)	-	-	0	0	0	-	-	-
Total Dead	25	25	67	67	0	-	-	-
Total All Species	18.5	25	133	70	63	-	-	-
Total Conifers	18.5	25	133	70	63	-	-	-
Layer 1C (22.5 cm - 27.4 cm DBH)								
Species Pl	25	25	167	167	0	-	-	-
Species Sx	10.4	23.4	133	7	126	-	-	-
Species Bl	-	-	0	0	0	-	-	-
Species At	-	-	0	0	0	-	-	-
Total Live (Healthy)	10.4	23.4	133	7	126	-	-	-
Total Live (Suppressed)	-	-	0	0	0	-	-	-
Total Dead	25	25	167	167	0	-	-	-
Total All Species	17.7	24.2	300	174	126	-	-	-
Total Conifers	17.7	24.2	300	174	126	-	-	-
Layer 1D (17.5 cm DBH - 22.4 cm DBH)								
Species Pl	-	-	0	0	0	-	-	-
Species Sx	5	21	200	10	190	-	-	-
Species Bl	-	-	0	0	0	-	-	-
Species At	5	5	67	3	64			
Total Live (Healthy)	5	21	267	13	254	-	-	-
Total Live (Suppressed)	-	-	0	0	0	-	-	-
Total Dead	5	5	0	0	0	-	-	-
Total All Species	5	13	267	13	254	-	-	-
Total Conifers	17.7	24.2	200	10	190	-	-	-
Layer 1E (12.5 cm - 17.4 cm DBH)								
Species Pl	21.4	21.4	333	333	0	-	-	-
Species Sx	-	-	0	0	0	-	-	-
Species Bl	-	-	0	0	0	-	-	-
Total Live (Healthy)	-	-	0	0	0	-	-	-
Total Live (Suppressed)	-	-	0	0	0	-	-	-





	Average Crown to	Average Tree	STEMS P	ER HECTA	RE (SPH)	VOLUM	E PER HE (m³/ha)	CTRARE
Species and Diameter Class	Base Height (m)	Height (m)	Existing	Cut	Leave	Existing	Cut	Leave
Total Dead	21.4	21.4	333	333	0	-	-	-
Total All Species	21.4	21.4	333	333	0	-	-	-
Total Conifers	21.4	21.4	333	333	0	-	-	-
Total Layer 1 (≥ 12.5 cm DBH)								
Total Layer - All Species	13.2	23.5	1033	590	443	-	-	-
Total Layer – Conifers Only	12.3	24	966	587	379	-	-	-
Layer 2 (7.5 cm - 12.4 cm DBH)								
Species PI	10	10	67	67	0	-	-	-
Species Sx	3	12	67	67	0	-	-	-
Species Bl	-	-	0	0	0	-	-	-
Total Live (Healthy)	3	12	67	67	0	-	-	-
Total Live (Suppressed)	-	-	0	0	0	-	-	-
Total Dead	10	10	67	67	0	-	-	-
Total All Species	6.5	11	133	133	0	-	-	-
Total Conifers	6.5	11	133	133	0	-	-	-
Layer 3 (< 7.5cm DBH, ≥ 1.3 m tall)								
Species PI	4	4	67	67	0	-	-	-
Species Sx	1.3	3.3	133	67	67	-	-	-
Species Bl	-	-	0	0	0	-	-	-
Total Live (Healthy)	1.3	3.3	133	67	67	-	-	-
Total Live (Suppressed)	-	-	0	0	0	-	-	-
Total Dead	4	4	67	67	0	-	-	-
Total All Species	2.6	3.6	200	133	67	-	-	-
Total Conifers	2.6	3.6	200	133	67	-	-	-





H. STAND AND STOCK TABLE - Fuel	Treatment U	nit FP3						
	Average	Average	STEMS P	ER HECTAI	RE (SPH)	VOLUM	E PER HE (m³/ha)	CTRARE
Species and Diameter Class	Crown to  Base  Height  (m)	Tree Height (m)	Existing	Cut	Leave	Existing	Cut	Leave
Layer 1A (> 40.0 cm DBH)								
Species PI	10	30	15	15	0	-	-	-
Species Sx	6.1	29.8	62	7	55	-	-	-
Species Bl	-	-	0	0	0	-	-	-
Species At	-	-	0	0	0	-	-	-
Total Live (Healthy)	6.1	29.8	62	7	55	-	-	-
Total Live (Suppressed)	-	-	0	0	0	-	-	-
Total Dead	10	30	15	15	0	-	-	-
Total All Species	8.1	29.9	77	22	55	-	-	-
Total Conifers	8.1	29.9	77	22	55	-	-	-
Layer 1B (27.5 cm – 39.9 cm DBH)								
Species Pl	7.8	19.5	62	62	0	-	-	-
Species Sx	11.3	27	231	37	194	-	-	-
Species Bl	-	-	0	0	0	-	-	-
Total Live (Healthy)	10.2	27	215	22	194	-	-	-
Total Live (Suppressed)	-	-	0	0	0	-	-	-
Total Dead	17.4	23.3	77	77	0	-	-	-
Total All Species	9.5	23.3	293	99	194	-	-	-
Total Conifers	9.5	23.3	293	99	194	-	-	-
Layer 1C (22.5 cm - 27.4 cm DBH)	_	•	•	•		•	•	
Species Pl	10	20.7	46	46	0	-	-	-
Species Sx	9.3	22	31	4	27	-	-	-
Species Bl	-	-	0	0	0	-	-	-
Species At	-	-	0	0	0	-	-	-
Total Live (Healthy)	9.3	22	31	4	27	-	-	-
Total Live (Suppressed)	-	-	0	0	0	-	-	-
Total Dead	10	20.7	46	46	0	-	-	-
Total All Species	9.6	21.3	77	50	27	-	-	-
Total Conifers	9.6	21.3	77	50	27	-	-	-
Layer 1D (17.5 cm DBH - 22.4 cm DBH)								<u> </u>
Species PI	-	-	0	0	0	-	-	-
Species Sx	6.3	18.1	185	30	155	-	-	-
Species Bl	-	-	0	0	0	-	-	-
Total Live (Healthy)	6.8	19.5	170	15	155	-	-	-
Total Live (Suppressed)	-	-	0	0	0	-	-	-
Total Dead	1	3	15	15	0	-	-	-
	1	1				1		1





	Average		STEMS P	ER HECTA	RE (SPH)	VOLUM	E PER HE	CTRARE
Species and Diameter Class	Crown to  Base  Height  (m)	Average Tree Height (m)	Existing	Cut	Leave	Existing	(m³/ha) Cut	Leave
Total All Species	6.3	18.1	185	30	155	-	-	-
Total Conifers	9.6	21.3	185	30	155	-	-	-
Layer 1E (12.5 cm - 17.4 cm DBH)								
Species PI	10	18	46	46	0	-	-	-
Species Sx	5.8	16.7	138	57	81	-	-	-
Species Bl	-	-	0	0	0	-	-	-
Species At	6.5	8.5	31	4	27			
Total Live (Healthy)	3.7	15.3	108	11	97	-	-	-
Total Live (Suppressed)	2	10	15	15	0	-	-	-
Total Dead	10.7	12.3	92	77	15	-	-	-
Total All Species	7.4	14.4	215	107	108	-	-	-
Total Conifers	7.9	17.3	184	103	81	-	-	-
Total Layer 1 (≥ 12.5 cm DBH)		•		•	1	1	•	
Total Layer - All Species	8.2	21.4	847	308	539	-	-	-
Total Layer - Conifers Only	8.9	22.6	816	304	512	-	-	-
Layer 2 (7.5 cm - 12.4 cm DBH)								
Species PI	-	-	0	0	0	-	-	-
Species Sx	5.3	11.7	169	46	123	-	-	-
Species Bl	-	-	0	0	0	-	-	-
Total Live (Healthy)	5.5	13.3	138	15	123	-	-	-
Total Live (Suppressed)	-	-	0	0	0	-	-	-
Total Dead	4.5	4.5	31	31	0	-	-	-
Total All Species	5.3	11.7	169	46	123	-	-	-
Total Conifers	5.3	11.7	169	46	123	-	-	-
Layer 3 (< 7.5cm DBH, ≥ 1.3 m tall)								
Species PI	-	-	0	0	0	-	-	-
Species Sx	1.3	3.9	446	277	169	-	-	-
Species Bl	-	-	0	0	0	-	-	-
Total Live (Healthy)	0.7	4.7	262	92	169	-	-	-
Total Live (Suppressed)	1.4	2.5	123	123	0	-	-	-
Total Dead	3.5	3.5	62	62	0	-	-	-
Total All Species	1.3	3.9	446	277	169	-	-	-
Total Conifers	1.3	3.9	446	277	169	-	-	-
Layer 4 (< 1.3 m tall)								
Species PI	-	-	0	0	0	-	-	-





H. STAND AND STOCK TABLE - Fuel Ti	reatment U	nit FP3						
	Average Crown to	Average	STEMS PI	ER HECTAF	RE (SPH)	VOLUM	E PER HE( (m³/ha)	CTRARE
Species and Diameter Class	Base Height (m)	Tree Height (m)	Existing	Cut	Leave	Existing	Cut	Leave
Species Sx	0.1	1	400	200	200	-	-	-
Species BI	-	-	0	0	0	-	-	-
Total Live (Healthy)	0.1	1	400	200	200	-	-	-
Total Live (Suppressed)	-	-	0	0	0	-	-	-
Total Dead	-	-	0	0	0	-	-	-
Total All Species	0.1	1	400	200	200	-	-	-
Total Conifers	0.1	1	400	200	200	-	-	-





Average Professional Diameter Class   Average Height (m)   Existing   Cut   Eaves   Existing   Cut   Existing   Cut   Existing   Cut   Eaves   Existing   Cut   Ex	H. STAND AND STOCK TABLE - Fuel T	reatment U	nit FP4						
Height (m)   Relight (m)   R		_	Average	STEMS P	ER HECTA	RE (SPH)	VOLUM		CTRARE
Species PI         -         -         0         0         0         -         -         -           Species Sx         23.3         30         33         13         20         -         -         -           Species BI         -         -         0         0         0         -         -         -           Total Live (Healthy)         12.5         27.5         22         2         20         -         -         -           Total Live (Suppressed)         -         -         0         0         0         -         -         -           Total Dead         30         30         11         11         0         -         -         -           Total Confers         23.3         30         33         13         20         -         -         -           Total Confers         23.3         30         33         13         20         -         -         -           Species PI         -         -         0         0         0         0         -         -         -           Species Su         13.3         28.3         33         23         10         -	Species and Diameter Class	Base Height	Height	Existing	Cut	Leave	Existing	Cut	Leave
Species Sx         23.3         30         33         13         20         -	Layer 1A (> 40.0 cm DBH)								
Species BI         -         -         0         0         0         -         -         -           Species At         15         25         11         1         10         -         -         -           Total Live (Healthy)         12.5         27.5         22         2         20         -         -         -           Total Live (Suppressed)         -         -         0         0         0         -         -         -         -           Total Dead         30         30         11         11         0         -	Species PI	-	-	0	0	0	-	-	-
Species St	Species Sx	23.3	30	33	13	20	-	-	-
Species No.   1	Species Bl	-	-	0	0	0	-	-	-
Total Live (Suppressed)   -   -   0   0   0   0   -   -   -   1	Species At	15	25	11	1	10	-	-	-
Total Dead         30         30         11         11         0         -         -         -           Total All Species         19.2         27.5         44         14         30         -         -         -           Total Conifers         23.3         30         33         13         20         -         -         -           Layer 18 (27.5 cm – 39.9 cm DBH)         Total Cive         -         0         0         0         0         -         -         -           Species Pl         -         -         0         0         0         0         -         -         -           Species Bl         -         0         0         0         0         -	Total Live (Healthy)	12.5	27.5	22	2	20	-	-	-
Total All Species   19.2   27.5   44   14   30   -   -   -   -       Total Al Species   19.2   27.5   44   14   30   -   -   -       Total Conifers   23.3   30   33   13   20   -   -       Total Conifers   23.3   30   33   13   20   -   -       Species Pl   -   -   0   0   0   0   -   -       Species Sx   13.3   28.3   33   23   10   -   -       Species Bl   -   0   0   0   0   -   -       Total Live (Healthy)   3   28   11   1   10   -   -       Total Dead   18.5   28.5   22   22   0   0   -     -     Total All Species   13.3   28.3   33   23   10   -     -       Total Conifers   13.3   28.3   33   23   10   -     -       Total Conifers   13.3   28.3   33   23   10   -     -       Total Conifers   13.3   28.3   33   23   10   -     -       Total Conifers   13.3   28.3   33   23   10   -     -       Total Conifers   13.3   28.3   33   23   10   -     -       Total Expert C (22.5 cm - 27.4 cm DBH)   -       Species Pl   12   19   22   0   22   -     -       Species Sx   7.1   23.7   111   22   89   -     -       Species Bl   2.5   23   22   0   22   -     -       Total Live (Healthy)   8.7   21.9   178   11   167   -     -       Total Live (Suppressed)   -     0   0   0   0   -     -       Total Conifers   2.19   188   25   163   -     -       Total Conifers   7.2   21.9   188   25   163   -     -         Total Conifers   7.2   21.9   185   22   133   -     -         Total Conifers   7.2   21.9   155   22   133   -     -         Total Conifers   7.2   21.9   155   22   133   -     -         Total Conifers   7.3   19.6   256   44   212   -     -           Total Live (Healthy)   7.3   20.2   300   33   267   -     -         Total Live (Healthy)   7.3   20.2   300   33   267   -     -         Total Live (Healthy)   7.3   20.2   300   33   267   -     -         Total Live (Suppressed)   7.3   20.2   300   33   267   -               Total Live (Suppressed)   7.3   20.2   300   33   267   -               Total Live (Suppressed)   7.3   20.2   300   33   267   -                 Total Live (Suppressed)   7.3   20.2	Total Live (Suppressed)	-	-	0	0	0	-	-	-
Total Conifers   23.3   30   33   13   20   -   -   -	Total Dead	30	30	11	11	0	-	-	-
Total Commers         Solution	Total All Species	19.2	27.5	44	14	30	-	-	-
Species PI         -         -         0         0         -         -         -           Species Sx         13.3         28.3         33         23         10         -         -         -           Species BI         0         0         0         0         -         -         -           Total Live (Healthy)         3         28         11         1         10         -         -         -           Total Live (Suppressed)         -         -         0         0         0         - <td>Total Conifers</td> <td>23.3</td> <td>30</td> <td>33</td> <td>13</td> <td>20</td> <td>-</td> <td>-</td> <td>-</td>	Total Conifers	23.3	30	33	13	20	-	-	-
Species Sx   13.3   28.3   33   23   10   -     -     -	Layer 1B (27.5 cm – 39.9 cm DBH)				•	•	•	•	
Species BI         0         0         0         -         -         -           Total Live (Healthy)         3         28         11         1         10         -         -         -           Total Live (Suppressed)         -         -         0         0         0         -         -         -           Total Dead         18.5         28.5         22         22         0         -         -         -           Total All Species         13.3         28.3         33         23         10         -         -         -           Total Conifers         13.3         28.3         33         23         10         -         -         -           Total Conifers         13.3         28.3         33         23         10         -         -         -           Total Conifers         12         19         22         0         22         -         -         -           Species Sx         7.1         23.7         111         22         89         -         -         -           Species Bl         2.5         23         22         0         22         -         -         -	Species PI	-	-	0	0	0	-	-	-
Species St	Species Sx	13.3	28.3	33	23	10	-	-	-
Total Live (Suppressed)	Species BI			0	0	0	-	-	-
Total Dead 18.5 28.5 22 22 0 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 -	Total Live (Healthy)	3	28	11	1	10	-	-	-
Total All Species 13.3 28.3 33 23 10	Total Live (Suppressed)	-	-	0	0	0	-	-	-
Total Conifers 13.3 28.3 33 23 10 -	Total Dead	18.5	28.5	22	22	0	-	-	-
Layer 1C (22.5 cm - 27.4 cm DBH)           Species PI         12         19         22         0         22         -         -         -           Species Sx         7.1         23.7         111         22         89         -         -         -           Species BI         2.5         23         22         0         22         -         -         -           Species At         15         22         33         3         30         -         -         -           Total Live (Healthy)         8.7         21.9         178         11         167         -         -         -           Total Live (Suppressed)         -         -         0         0         0         -	Total All Species	13.3	28.3	33	23	10	-	-	-
Species PI         12         19         22         0         22         -         -         -           Species Sx         7.1         23.7         111         22         89         -         -         -           Species BI         2.5         23         22         0         22         -         -         -           Species At         15         22         33         3         30         -         -         -           Total Live (Healthy)         8.7         21.9         178         11         167         -         -         -           Total Live (Suppressed)         -         -         0         0         0         -         -         -           Total Dead         23         23         11         11         0         -         -         -           Total All Species         9.2         21.9         188         25         163         -         -         -           Total Conifers         7.2         21.9         155         22         133         -         -         -           Species Pl         16.5         20.5         144         111         33         -	Total Conifers	13.3	28.3	33	23	10	-	-	-
Species PI         12         19         22         0         22         -         -         -           Species Sx         7.1         23.7         111         22         89         -         -         -           Species BI         2.5         23         22         0         22         -         -         -           Species At         15         22         33         3         30         -         -         -           Total Live (Healthy)         8.7         21.9         178         11         167         -         -         -           Total Live (Suppressed)         -         -         0         0         0         -         -         -           Total Dead         23         23         11         11         0         -         -         -           Total All Species         9.2         21.9         188         25         163         -         -         -           Total Conifers         7.2         21.9         155         22         133         -         -         -           Species Pl         16.5         20.5         144         111         33         -	Laver 1C (22.5 cm - 27.4 cm DBH)	<u> </u>	L	L		1	1	<u> </u>	1
Species Bl       2.5       23       22       0       22       -       -       -         Species At       15       22       33       3       30       -       -       -         Total Live (Healthy)       8.7       21.9       178       11       167       -       -       -         Total Live (Suppressed)       -       -       0       0       0       -       -       -         Total Dead       23       23       11       11       0       -       -       -         Total All Species       9.2       21.9       188       25       163       -       -       -         Total Conifers       7.2       21.9       155       22       133       -       -       -         Layer 1D (17.5 cm DBH - 22.4 cm DBH)       -       -       -       -       -       -       -         Species Pl       16.5       20.5       144       111       33       -       -       -         Species Sx       7.3       19.6       256       44       212       -       -       -         Total Live (Healthy)       7.3       20.2       300       33 </td <td></td> <td>12</td> <td>19</td> <td>22</td> <td>0</td> <td>22</td> <td>-</td> <td>-</td> <td>-</td>		12	19	22	0	22	-	-	-
Species At       15       22       33       3       30       -       -       -         Total Live (Healthy)       8.7       21.9       178       11       167       -       -       -         Total Live (Suppressed)       -       -       0       0       0       -       -       -         Total Dead       23       23       11       11       0       -       -       -         Total All Species       9.2       21.9       188       25       163       -       -       -         Total Conifers       7.2       21.9       155       22       133       -       -       -         Layer 1D (17.5 cm DBH - 22.4 cm DBH)       -       -       -       -       -       -       -         Species Pl       16.5       20.5       144       111       33       -       -       -         Species Sx       7.3       19.6       256       44       212       -       -       -         Species Bl       1.5       21       22       0       22       -       -       -         Total Live (Healthy)       7.3       20.2       300       33 </td <td>Species Sx</td> <td>7.1</td> <td>23.7</td> <td>111</td> <td>22</td> <td>89</td> <td>-</td> <td>-</td> <td>-</td>	Species Sx	7.1	23.7	111	22	89	-	-	-
Species At       15       22       33       3       30       -       -       -         Total Live (Healthy)       8.7       21.9       178       11       167       -       -       -         Total Live (Suppressed)       -       -       0       0       0       -       -       -         Total Dead       23       23       11       11       0       -       -       -         Total All Species       9.2       21.9       188       25       163       -       -       -         Total Conifers       7.2       21.9       155       22       133       -       -       -         Layer 1D (17.5 cm DBH - 22.4 cm DBH)       -       -       -       -       -       -       -         Species Pl       16.5       20.5       144       111       33       -       -       -         Species Sx       7.3       19.6       256       44       212       -       -       -         Species Bl       1.5       21       22       0       22       -       -       -         Total Live (Healthy)       7.3       20.2       300       33 </td <td>Species BI</td> <td>2.5</td> <td>23</td> <td>22</td> <td>0</td> <td>22</td> <td>-</td> <td>-</td> <td>-</td>	Species BI	2.5	23	22	0	22	-	-	-
Total Live (Suppressed)       -       -       0       0       0       -       -       -         Total Dead       23       23       11       11       0       -       -       -         Total All Species       9.2       21.9       188       25       163       -       -       -         Total Conifers       7.2       21.9       155       22       133       -       -       -         Layer 1D (17.5 cm DBH - 22.4 cm DBH)	Species At	15	22	33	3	30	-	-	-
Total Dead       23       23       11       11       0       -       -       -         Total All Species       9.2       21.9       188       25       163       -       -       -         Total Conifers       7.2       21.9       155       22       133       -       -       -         Layer 1D (17.5 cm DBH - 22.4 cm DBH)       -       -       -       -       -       -       -         Species Pl       16.5       20.5       144       111       33       -       -       -       -         Species Sx       7.3       19.6       256       44       212       -       -       -         Species Bl       1.5       21       22       0       22       -       -       -         Total Live (Healthy)       7.3       20.2       300       33       267       -       -       -         Total Live (Suppressed)       3       21       11       11       0       -       -       -	Total Live (Healthy)	8.7	21.9	178	11	167	-	-	-
Total All Species       9.2       21.9       188       25       163       -       -       -         Total Conifers       7.2       21.9       155       22       133       -       -       -         Layer 1D (17.5 cm DBH - 22.4 cm DBH)       8       8       25       133       -       -       -         Species Pl       16.5       20.5       144       111       33       -       -       -         Species Sx       7.3       19.6       256       44       212       -       -       -         Species Bl       1.5       21       22       0       22       -       -       -         Total Live (Healthy)       7.3       20.2       300       33       267       -       -       -         Total Live (Suppressed)       3       21       11       11       0       -       -       -	Total Live (Suppressed)	-	-	0	0	0	-	-	-
Total Conifers         7.2         21.9         155         22         133         -         -         -           Layer 1D (17.5 cm DBH - 22.4 cm DBH)         Company of the property of t	Total Dead	23	23	11	11	0	-	-	-
Total Conifers         7.2         21.9         155         22         133         -         -         -           Layer 1D (17.5 cm DBH - 22.4 cm DBH)         Company of the property of t		9.2	21.9	188	25	163	-	-	-
Layer 1D (17.5 cm DBH - 22.4 cm DBH)         6.5         20.5         144         111         33         -         -         -         -           Species Sx         7.3         19.6         256         44         212         -         -         -           Species Bl         1.5         21         22         0         22         -         -         -           Total Live (Healthy)         7.3         20.2         300         33         267         -         -         -           Total Live (Suppressed)         3         21         11         11         0         -         -         -		+					-	-	-
Species PI       16.5       20.5       144       111       33       -       -       -         Species Sx       7.3       19.6       256       44       212       -       -       -         Species Bl       1.5       21       22       0       22       -       -       -         Total Live (Healthy)       7.3       20.2       300       33       267       -       -       -         Total Live (Suppressed)       3       21       11       11       0       -       -       -	Layer 1D (17.5 cm DBH - 22.4 cm DBH)								
Species Sx       7.3       19.6       256       44       212       -       -       -         Species Bl       1.5       21       22       0       22       -       -       -         Total Live (Healthy)       7.3       20.2       300       33       267       -       -       -         Total Live (Suppressed)       3       21       11       11       0       -       -       -		16.5	20.5	144	111	33	-	-	-
Species Bl         1.5         21         22         0         22         -         -         -           Total Live (Healthy)         7.3         20.2         300         33         267         -         -         -           Total Live (Suppressed)         3         21         11         11         0         -         -         -	•		-	256	44		-	-	-
Total Live (Healthy)       7.3       20.2       300       33       267       -       -       -         Total Live (Suppressed)       3       21       11       11       0       -       -       -			-				-	-	-
Total Live (Suppressed) 3 21 11 11 0	•	+					-	-	-
· · · · · · · · · · · · · · · · · · ·		+	-				-	-	-
	Total Dead	17.5	20.6	111	111	0	-	-	-





H. STAND AND STOCK TABLE - Fuel T	reatment U	nit FP4						
	Average	Average	STEMS P	ER HECTA	RE (SPH)	VOLUM	E PER HEO (m³/ha)	CTRARE
Species and Diameter Class	Crown to Base Height (m)	Tree Height (m)	Existing	Cut	Leave	Existing	Cut	Leave
Total All Species	8.4	20.4	422	156	266	-	-	-
Total Conifers	7.2	21.9	422	156	266	-	-	-
Layer 1E (12.5 cm - 17.4 cm DBH)								
Species Pl	15.2	18.4	144	100	44	-	-	-
Species Sx	5.9	16.5	222	22	200	-	-	-
Species Bl	2.3	13	22	0	22	-	-	-
Total Live (Healthy)	7.4	15.7	278	11	267	-	-	-
Total Live (Suppressed)	10.5	18	22	22	0	-	-	-
Total Dead	15.9	18.6	89	89	0	-	-	-
Total All Species	7.8	15.9	389	122	267	-	-	-
Total Conifers	7.8	15.9	389	122	267	-	-	-
Total Layer 1 (≥ 12.5 cm DBH)								
Total Layer - All Species	11.6	22.8	1076	340	736	-	-	-
Total Layer - Conifers Only	11.8	23.6	1032	336	696	-	-	-
Layer 2 (7.5 cm - 12.4 cm DBH)	•	•		1				1
Species Pl	12	12	89	89	0	-	-	-
Species Sx	4.9	12.6	600	211	389	-	-	-
Species Bl	-	-	0	0	0	-	-	-
Total Live (Healthy)	4	12.5	533	144	389	-	-	-
Total Live (Suppressed)	2.5	8	11	11	0	-	-	-
Total Dead	13	13	144	144	0	-	-	-
Total All Species	8.5	12.3	689	300	389	-	-	-
Total Conifers	8.5	12.3	689	300	389	-	-	-
Layer 3 (< 7.5cm DBH, ≥ 1.3 m tall)		L	L	<u> </u>	I	<u> </u>	l	<u> </u>
Species PI	10	10	11	11	0	-	-	-
Species Sx	2.6	5	589	356	233	-	-	-
Species Bl	-	-	0	0	0	-	-	-
Total Live (Healthy)	1.4	3.5	411	156	256	-	-	-
Total Live (Suppressed)	2	5.4	78	78	0	-	-	-
Total Dead	7.2	7.2	133	133	0	-	-	-
Total All Species	4.4	5.7	622	367	256	-	-	-
Total Conifers	4.4	5.7	622	367	256	-	-	-
Layer 4 (< 1.3 m tall)	<u> </u>		i e					
Species PI	-	-	0	0	0	-	-	-
Species Sx	0.0	1.0	44	11	33	-	-	-
	1							





H. STAND AND STOCK TABLE - Fuel Treatment Unit FP4								
	Average Crown to Base Height (m)	Average Tree Height (m)	STEMS PER HECTARE (SPH)			VOLUME PER HECTRARE (m³/ha)		
Species and Diameter Class			Existing	Cut	Leave	Existing	Cut	Leave
Species BI	0.0	1.0	189	78	111	-	-	-
Total Live (Healthy)	0.0	1.0	233	89	144	-	-	-
Total Live (Suppressed)	-	-	0	0	0	-	-	-
Total Dead	-	-	0	0	0	-	-	-
Total All Species	0.0	1.0	233	89	144	-	-	-
Total Conifers	0.0	1.0	233	89	144	-	-	-





I. TREATMENT DESCRIPTION							
	Existing: Fine Fuels (≤7 cm): 5-25 Coarse Fuels (>7 cm): 25		Target: Fine Fuels (≤7 cm): ≤8 t/ha Coarse Fuels (>7 cm): ≤10-30 t/ha primarily in logs greater than 20 cm diameter.				
SURFACE FUEL LOADING (tonnes/ha)	Distribution: Existing surface fuel lovariable throughout, concentrations of dedowned logs mixed with branches, and tops.	, with	Distribution: Fine fuel cleanup will involve targeting all debris from spacing, at least 90% of pruned branches, and previously down debris limited to elevated stems, tops and limbs from 1 cm - 20 cm in diameter. Coarse fuel cleanup should focus on removal of all dry/elevated logs, excluding designated CWD. Barkless debris more than 25% buried in the organic litter layer can be retained regardless of size to prevent site disturbance.				
	Method used to measure:		stimation and Photo Guide For Quantifying Forest nds in British Columbia Guides 501 and 502				
Crown Closure (%)	Existing: 70-80%	Target: 50-60%					
BIODIVERSITY AND FOREST HEALTH CONSIDERATIONS AND TARGETS							
COARSE WOODY DEBRIS (CWD) RETENTION TARGET - SPH and Distribution	The Coarse Woody Debris (CWD) target for the treatment area is a minimum of 4 logs/ha (minimum 3 m long x 20 cm diameter) distributed uniformly. Preference is to retain logs with signs of advanced decay, bark off, and those buried partly in the organic soil layer.						
WILDLIFE TREE RETENTION TARGET	All live/healthy Layer 1 trees, and dead standing trees of high wildlife value will be retained except for those that must be felled for safety or operational considerations.						
FOREST HEALTH	The majority of Lodgepole pine in the treatment areas are dead standing/downed due to past mountain pine beetle infestation. Treatment activities are primarily targeted towards removal of dead PI and retention of live/healthy Sx.						
TREATMENT SPECIFICATIONS SUMMARY							
TU	TREE REMOVAL/RETENTION STRATEGY BY SIZE/SPECIES (Summarize specifications identified in table above)						
FP1	Tree removal will target dead standing trees and blowdown. All live Layer 1 trees						
FP2	will be retained except for those required to be felled based on operational/safe considerations. Understory removal of Layer 2, 3 and 4 (>12.5 cm DBH) will l						
FP3	targeted towards those within 1 m of the dripline of Layer 1 leave tree						
FP4 treatment description for details.							
TDEATMENT SPECIFICATION DATIONALE	10						

### TREATMENT SPECIFICATION RATIONALE (See notes to assist)

### HAND AND/OR SMALL MACHINE TREATMENT (FP1, FP2, FP3, and FP4)

The fuel treatments around the Face Paska community will be limited to hand crews and small equipment. The target of the treatments are the dead standing and blowdown fuels on site. This approach is expected to cause minimal impact to live trees on site. A small allowance (5%) of live tree removal will be required to facilitate small equipment, danger tree removal, and creating space for burn piles.

### **ACCESS**





### I. TREATMENT DESCRIPTION

The only new access structures proposed are small equipment trails (i.e. for a mini-excavator) which will cause minimal disturbance. As there is no commercial harvesting occurring, no new road construction or upgrade, and no hauling of timber. Access will occur as follows (see map for details):

- FP1 will be accessed through an existing trail on private property to the north (LLCF will get a signed agreement with private land holder).
- FP2 will be accessed via two small equipment trails coming off of existing public roads
- FP3 will be accessed through an existing tenured road (R9054.01). This road is managed by the MFLNRORD —
  Thompson Rivers District.
- FP4 will be accessed through a small equipment access trail coming off of the Haybrook FSR (R8446.01).

#### TREE FALLING (>12.5 CM DBH)

All live Layer 1 trees (>12.5 cm DBH), and dead trees (>40 cm DBH), are to be retained as wildlife trees except for those specifically designated as danger trees by a WorkSafe BC certified Danger Tree Assessor, or where required for operations. The remainder of the dead standing trees will be targeted for hand falling. Falling work of trees in excess of 15 cm DBH must be completed by a Worksafe BC certified Faller.

#### **Tree Falling Measureable Standard**

All live trees >12.5 cm DBH, and dead trees >40 cm DBH, are to be retained except assessed and marked danger trees
or trees that must be felled for operational considerations.

### **UNDERSTORY SPACING (<12.5 CM DBH)**

- . Layer 2-4 spacing will be completed as follows:
  - Remove all stems from within 1 m of the dripline of Layer 1 leave trees
  - Remove all dead/suppressed stems
  - Any live stems not within 1 m of the dripline of Layer 1 leave trees should be retained, and
  - Retain all deciduous, live or dead.

#### **Spacing Measureable Standard**

• A minimum of 95% of the target trees are to be removed.

#### **PRUNING**

Pruning will be conducted on all live and dead conifer stems over 5 m in height. Trees will be pruned to a maximum of 50% of tree height (i.e. 50% live crown retained), or 3 m from the ground to the lowest branch tip, whichever is less. Pruning will include both dead and live branches with branch stubs not to exceed 1 cm in length. This is designed to create significant separation between surface and crown fuels reducing the crown fire, candling and spotting potential. If using a machine, pruning debris must be amalgamated by pruning crew for machine piling.

Conifers under 5 m tall may be adversely impacted by pruning due to small stem size and thin bark. Where these trees occur within 10 m horizontal distance of the dripline of Layer 1 leave trees (i.e. close enough fire may propagate vertically into the crowns of nearby Layer 1 trees), they should be removed altogether through spacing.

#### **Target Trees**

• All conifer stems over 5 m tall

### **Pruning Measurable Standard**





### I. TREATMENT DESCRIPTION

• 95% of the target trees to be pruned to the appropriate height, with stubs under 1 cm in length.

#### **SURFACE FUEL CLEANUP**

Surface fuel cleanup will involve targeting all debris from spacing and at least 90% of the pruned branches. Removal of previously down debris will be limited to elevated stems, tops and limbs from 1 cm-20 cm in diameter, excluding designated CWD. Barkless debris more than 25% buried in the organic litter layer can be retained regardless of size to prevent site disturbance. Stumps are to be cut flush to the ground and the butts are to be place in the burn piles.

#### **Surface Fuel Cleanup Measureable Standard**

- All spacing debris into burn piles
- Over 95% of green branches into burn piles
- Over 90% of all pruning, live and dead, down to 1 cm in diameter into burn piles
- Over 90% of the available previously downed surface fuels between 20 cm and 1 cm in diameter, into burn piles
- Fine Fuels (≤7 cm) must be ≤8 t/ha on average post-treatment
- Coarse Fuels (>7 cm) must be 10-30t/ha on average post-treatment

#### SNOW CONDITIONS/TIMING OF OPERATIONS.

Surface fuel removal should be conducted with snow free conditions, or minimal snow coverage to ensure surface fuel targets set in this prescription are met. Phase 2 treatment work involving danger tree falling and small equipment is restricted during the migratory bird nesting window of May 15 - July 20. As operations are close to residences, no machinery is to be operated from 8 pm-7 am Monday-Saturday, and 8pm-10 am Sunday.

#### **FIREWOOD**

Debris created by treatments activities will be considered for donations as firewood to local residents. Donations will be assessed during treatment implementation and communicated to residents.

Residents are responsible for obtaining a firewood permit and all costs and work required to access debris piles to collect firewood. Residents must obtain permission from the LLCF before collecting firewood, and only collect wood from piles designated for donations. Piles must be left in a state conducive to burning (i.e. not scattering of material/mess created). Residents assume all risk and responsibility for any injury or loss arising out of firewood collection, and the LLCF is in no way liable.

### **OPEN BURNING**

All slash piles will be randomly distributed throughout the area and will be burned progressively with treatments within the FTU boundary. Burn piles should be at least five meters, horizontal distance, from the coarse woody debris, recreation trails, and fence lines. Piles must be located to prevent scorch, root damage and stress to the leave trees. Machine piles are not to be more than 5 m x 5 m and piles to be at least as tall as wide before ignition can occur. Understory trees with excessively singed needles caused by burning of piles must be felled and burned along with the piles. Burning of piles should be left to the late Fall, Winter or early Spring, and conducted under conditions that will minimize spread.

All burning must be complete within 18 months of piling. All open burning must be in compliance with the BC Wildfire Act, Wildfire Regulation Hazard Abatement Requirements, and Open Burning Smoke Control Regulations.

### **Open Burning Measurable Standard**

- All burn piles pushed in and over 95% of debris consumed
- All piles are fully extinguished

MERCHANTABLE TIMBER HARVEST

ROADS, LANDINGS AND TRAILS: N/A

FELLING: N/A





I. TREATMENT DESCRIPTION
YARDING/SKIDDING: N/A
LOADING AND HAULING: N/A
SLASH DISPOSAL: N/A
SITE DISTURBANCE: N/A
SPECIAL MEASURES: N/A
STAND MODIFICATION TREATMENTS
MERCHANTABLE TIMBER UTILIZATION: Was commercial timber harvest considered? Yes 🗵 No 🗌 If commercial timber harvest is not prescribed, explain: Although originally considered, the harvesting was removed from consideration for this project. Due to the watershed health concerns in the area, and possibility of excessive removal of live/healthy stems by larger harvesting equipment, it was determined harvesting would not meet the stewardship objectives of this project. Fuel management objectives can be achieved with hand crews/small equipment only.
BRUSHING: N/A
PRUNING: See treatment description above.
THINNING: See treatment description above.
DEBRIS PILING: See treatment description above.
PILE BURNING: See treatment description above.
MULCHING: N/A
MASTICATION: N/A
GRINDING: See treatment description above.
PRESCRIBED FIRE: N/A
PLANTING: An exemption request from silviculture obligations will be submitted to MFLNRORD – Thompson Rivers District.  The LLCF will assess and plant any openings post-treatment with species appropriate for fire management, such as deciduous.
OTHER:
AUTHORIZATION AND TIMBER TENURE
Cutting Permit (CP): FP2 and FP3 will be treated under a LLCF CP. No merchantable harvest involved.
Forestry Licence to Cut (FLTC): FP1 and FP4 will be treated under a FLTC (outside of LLCF tenure). No merchantable harvest involved.
Park Use Permit: N/A
Road Permit or Road Use Permit: Road Permit required for access trails into FP2 and FP4. LLCF will apply for RPs prior to commencing treatments.
Other (i.e. local government, utilities, etc.): BC Hydro utility application, Section 16 authorization from Rec Officer.

### J. POST TREATMENT

EXPECTED VEGETATION RESPONSE: Some natural regeneration of Sx and deciduous brush is expected to increase in openings.

ADDITIONAL TREATMENTS OR MAINTENANCE: This prescription is designed to create a reasonably stable forest stand that should not require any fuel management maintenance activities for at least ten years. Further forest pest mortality, windthrow, snow press or wildfires in the area could cause a re-assessment of the stand condition and may trigger further fuel management hazard reduction efforts sooner than 10 years. The amount of coniferous regeneration in the stand should be monitored annually to determine a further spacing and pruning treatment. Prescribed fire is not a recommended maintenance option.

SILVICULTURE OBLIGATIONS: Do silviculture obligations apply to the treatment area? Yes  $\ \Box$  No  $\ oxdot$ 





J. POST TREAT	N	ΊE	NT
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The LLCF will submit a request to the MFLNRORD – Thompson Rivers District for an exemption from silviculture obligations for these treatment areas in order to be able to achieve fuel management objectives,

PLANTING: Is planting a treatment identified in this prescription or required as a legislative obligation? Yes  $\square$  No  $\boxtimes$  Some fill planting along rehabilitated roads/trails and openings greater than 0.5 ha created by treatments may be considered upon completion of treatments. Deciduous species are highly fire resistant and may be considered for planting in certain areas.

### STOCKING STANDARDS

				Well Spaced Stem/ha		Minim	um Hoigh	n+ (m)		Fran		
	Stocking				М	SS		IVIIIIIII	num Heigh	ιι (111)		Free Growing
	Standard	Pref.	Acc.		Pref.					RTH	Regen	(years)
TU	ID	Spp.	Spp.	TSS	& Acc.	Pref.	MITD	Pl	Others	(%)	Delay	(7 7
FP1	-	-	-	-	-	-	-	-	-	-	-	-
FP2	-	i	-	-	-	-	-	1	-	1	-	-
FP3	-	ı	-	-	-	-	-	1	-	1	-	-
FP4	-	i	-	-	-	-	-	-	-	ı	-	-

### **K. Outstanding Works**

1. Authorizations including; FLTC (FP1 and FP4), Cutting Permit (FP2 and FP3), Road Permits (FP2 and FP4) Section 16 Authorization for use of recreation trails, and BC Hydro approval for falling next to powerlines prior to commencing treatments (FP1 and FP2).

L. ADMINISTRATION	
PREPARATION	
Adam Sullivan, RPF  I certify that the work described herein fulfills the standards expected of a registrant of the Association of British Columbia Forest Professionals and that I did personally supervise the work.	ADAM PAUL SULLIVAN  BB/TISH  SOLUMBIA  NO. 5013
FOREST PROFESSIONAL NAME (Printed)	FOREST PROFESSIONAL SIGNATURE
ABCFP MEMBERSHIP NUMBER: 5013	DATE: July 9, 2021

M. ATTACHMENTS			
MAPS:	Yes ⊠ No □	FIELD DATA CARDS:	Yes $\square$ No $\boxtimes$
WUI WTA Plots and Photos:	Yes □ No ⊠	CRUISE DATA:	Yes □ No ⊠
AIR PHOTOS/IMAGERY:	Yes □ No ⊠	BURN PLAN:	Yes $\square$ No $\boxtimes$
MODELING/DATA ANALYSIS:	Yes □ No ⊠	OTHER:	Yes □ No ⊠
TERRAIN STABILITY ASSESSMENT	Yes □ No ⊠	VISUAL IMPACT ASSESSMENT	Yes ⊠ No □
Completed By: N/A		Completed By: Garnet Mierau, RPF;	Forsite Consultants Ltd.
Date: N/A		Date: July 8, 2021	





M. ATTACHMENTS	
ARCHAEOLOGY IMPACT ASSESSMENT Yes ☐ No ☒	BIOLOGIST ASSESSMENT Yes □ No ⊠
Completed By: N/A	Completed By: N/A
Date: N/A	Date: N/A
ADDITIONAL COMMENTS:	
N/A	

