

# **Chinook Comfor Limited Partnership**

## **REQUEST FOR PROPOSAL (RFP)**

**K4R-WR3 Stump to Dump, Pile & Burning**

### **CHINOOK WRR PROJECT**

Chinook Comfor LP

Box 969

Burns Lake, B.C. V0J 1E0

Phone: 1-250-692-0630

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**RFP ID: 2025-26-K4R-WR3**

**Prepared By: Ken Nielsen**

**Date: June 13, 2025**

REQUEST FOR PROPOSAL  
K4R-WR3 Stump to Dump  
Burns Lake, B.C.

**RFP ID:** 2025-26-K4R-WR3-Stump to Dump

**SUBMISSION DEADLINE:** July 7, 2025

**QUESTION SUBMISSION DEADLINE:** June 30, 2025

Questions may be submitted in written form no later than June 30,2025, to:

**RFP Contact Name:** Ken Nielsen  
**Contact Address:** Box 969  
Burns Lake, V0J 1E0  
**Telephone Number:** 1-250-692-0630  
**Email Address:** Ken.Nielsen@chinookcomfor.ca

**INTRODUCTION**

Chinook Comfor LP invites and welcomes proposals for our K4R-WR3 Stump to Dump Project. Please take the time to carefully read and become familiar with the proposal requirements. All proposals submitted for consideration must be received by the time as specified above under the "SUBMISSION DEADLINE."

*BIDDERS SHOULD NOTE THAT ANY AND ALL WORK INTENDED TO BE SUBCONTRACTED AS PART OF THE BID SUBMITTAL MUST BE ACCOMPANIED BY BACKGROUND MATERIALS AND REFERENCES FOR PROPOSED SUBCONTRACTOR(S) – NO EXCEPTIONS.*

**PROJECT AND LOCATION**

The request for proposal is being requested for Chinook Community Forest K4R licence area, specifically in and around the southside community in the Lakes TSA, Burns Lake, BC.

**PROJECT MANAGER CONTACT INFORMATION**

For questions or information regarding Planning, contact the following individual(s):

**Name:** Ken Nielsen  
**Title:** General Manager  
**Phone:** 1-250-692-0630  
**Email:** Ken.Nielsen@chinookcomfor.ca

**PROJECT OBJECTIVE**

The objective for this project is to harvest Wildfire Risk Reduction Treatment Units to mitigate the risk to communities. Deliver saw log fiber to various manufacturing facilities.

**PROJECT SCOPE AND SPECIFICATIONS**

Project Scope and Specifications are detailed on an attached document. (Appendix 1)

**SCHEDULED TIMELINE**

The following timeline has been established to ensure that our project objective is achieved; however, the following project timeline shall be subject to change when deemed necessary by management.

**MILESTONE**

**DATE**

**Start :**

August 01, 2025

**Detailed Update:**

October 1, 2025

**Completion Deadline:**

March 1, 2026

**PROPOSAL BIDDING REQUIREMENTS**

**PROJECT PROPOSAL EXPECTATIONS**

Chinook Comfor LP may award the contract to the proposal that best accommodates the various project requirements. Chinook Comfor LP reserves the right to award any contract prior to the proposal deadline stated within the "Scheduled Timeline" or prior to the receipt of all proposals, award the contract to more than one Bidder, and refuse any proposal or contract without obligation to either Chinook Comfor LP or to any Bidder offering or submitting a proposal.

**INTENT TO SUBMIT PROPOSAL**

All invited Bidders are required to submit a "Letter of Intent" no later than June 27, 2025, informing Chinook Comfor LP of their intent to either submit or decline to submit a proposal.

**DEADLINE TO SUBMIT PROPOSAL**

All proposals must be received by Chinook Comfor LP in a sealed envelope no later than 2:00 pm on July 7, 2025, for consideration in the project proposal selection process. By mail Box 969, Burns Lake, BC V0J 1E0 or drop off at Chinook's office 485 Hwy 16 W, Burns Lake.

## **PROPOSAL SELECTION CRITERIA**

Only those proposals received by the stated deadline will be considered. All proposals submitted by the deadline will be reviewed and evaluated based upon information provided. In addition, consideration will be given to cost and performance projections. Furthermore, the following criteria will be given considerable weight in the proposal selection process:

- Proposals received by the stipulated deadline in the correct format;
- Bidder's asserted performance effectiveness regarding the project objectives of Chinook Comfor LP;
- Bidder's performance history and asserted ability to timely deliver proposed services;
- Bidder's ability to provide and deliver qualified personnel who have the knowledge and skills required to effectively and efficiently execute proposed services;
- Overall cost effectiveness of the proposal;

Chinook Comfor LP shall reserve the right to cancel, suspend, and/or discontinue any proposal at any time they deem necessary or fit without obligation or notice to the proposing bidder/contractor.

## **PROPOSAL SUBMISSION FORMAT**

The following is a list of information that the Bidder should include in their proposal submission:

### **Summary of Bidder Background**

- Bidder's Name(s);
- Bidder's Address;
- Bidder's Contact Information (and preferred method of communication);
- Legal Form of Bidder (e.g. sole proprietor, partnership, corporation);
- Date that the Bidder's Company was Formed;
- Description of Bidder's company in terms of size, range, and clientele as well as the types of services offered.
- Bidder's principal officers (e.g. president, chairman, vice president(s), secretary, chief operating officer, chief financial officer, general managers, etc.) and length of time each officer has performed in his/her field of expertise;
- Evidence of legal authority to conduct business (e.g. business license number);
- Evidence of established track record for providing services and/or deliverables that are the subject of this proposal;
- Organizational chart showing key personnel who would provide services to Chinook Comfor LP.

### **Financial Information**

- State whether the Bidder, or its parent company (if any), has ever filed for bankruptcy or any form of reorganization under the Bankruptcy Code;

- State whether the Bidder, or its parent company (if any), has ever received any sanctions or is currently under investigation by any regulatory or governmental body.

### **Proposed Outcome**

- Summary of timeline and work to be completed.

### **Equipment or Service**

- List all equipment or services required for this proposed project and the quantity of each;
- Detailed estimated cost for each piece of equipment or service;
- List any equipment or services required of a subcontractor, along with a brief explanation;
- List any accommodation, services, or space required from Chinook Comfor LP, along with a brief explanation.

### **Cost Proposal Summary and Breakdown**

- An inclusive price for travel/room and board and utility vehicles.
- A detailed list of all expected costs related to the proposed project;

### **Licensing and Bonding**

- Provide details of licenses and bonds (if any) for any proposed services that the bidder/contractor may plan on providing for this project.

### **Insurance**

- Details of any liability or other insurance provided with regard to the staff or project.

### **References**

- Provide 3 references

Bidder agrees that Chinook Comfor LP may contact all submitted references to obtain all information regarding Bidder's performance.

### **Opening of RFP**

- Bidders are welcome to attend the opening of proposals July7,2025, 4:30 pm at Chinooks office.

## Appendix 1 K4R-WR3

This harvesting is for approximately 21,000 m<sup>3</sup> of mixed green and dry stands over multiple blocks along the Keefes Landing Road.

- 1) Prescription Map #1, Blk WWR-1, 2 & 20. 25.6/ha approximate Volume 6,200m<sup>3</sup>.
- 2) Prescription Map #2, Blk WWR -3 & 5. 8.7/ha approximate volume 2,300m<sup>3</sup>.
- 3) Prescription Map #3, Blk's WWR-6,7,8 & 9. 20.7/ha approximate volume 3,600m<sup>3</sup>
- 4) Prescription Map #4, Blk's WWR 10, 11 & 12. 9.9/ha approximate volume 1,400m<sup>3</sup>
- 5) Prescription Map #6, Blk WRR 14. 1/ha approximate volume 200m<sup>3</sup>.
- 6) Prescription Map #7, WRR Blk's 15. 29/ha approximate volume 6,300m<sup>3</sup>.

Prescriptions and maps are attached, along with some photos to give you an idea of stand structure.

Page 11 or 12 of the prescriptions you can find the TREATMENT DESCRIPTION for harvesting.

With in some of these Blk's there are Culturally Modified Tress (CMT's), contractor will work with the Chinook representative on which ones can be snubbed for harvesting and which ones need to be left standing.

Currently Chinook is waiting for an approved Cutting Permit (CP) and Road Permits (RP) expected by August.

Chinook is also up against our cut control period. Only 10,000m<sup>3</sup> can be delivered in the 2025 calendar year. The remaining volume can delivered after January 1<sup>st</sup>, 2026.

Also attached is Appendix 2, a cost sheet to be filled out.

Appendix 2

<b>Operation</b>	<b>Cubic Meter Cost m3/\$</b>
Bunching	m3/\$
Skidding	m3/\$
Processing	m3/\$
Loading/Piling	m3/\$
Road Building	Linear Meter Cost\$
Hauling to Decker Forest Products	Tonne/hr rate
Hauling to Babine Forest Products	Tonne/hr rate
Hauling to Drax Burns Lake Pellet Plant	Tonne/hr rate
Hauling to Tahtsa Timber	Tonne/hr rate

Chinook HIGHLY ADVISES contractors to work/educate processor and buncher operators on how waste is determined. Currently, the benchmark for waste in the Lakes Timber Supply Area is 10m3 per hectare. After 3 years of waste surveys, Chinooks' benchmark is 3m3 per hectare.

Chinook will penalize contractors for waste exceeding 3 m3 per hectare at a rate of \$2.00 per m3 per hectare.

**Appendix 1b**

As this project focuses on Wildfire Risk Reduction, Chinook is collaborating with FESBC to address post-harvest fuel loading treatments. Chinook requests that you submit a proposed price for raking and gathering debris across the block post-harvest, piling and then burning of the piles.

This can only be done after Chinook completes waste assessments and given approval to burn rake, pile & burn.

<b>Total Hectares of all blocks</b>	<b>Hectare Rate for racking/piling/burning</b>
94.9/hectares	\$

## K4R - 2025-26 Info Share Map Eakin Settlement Road

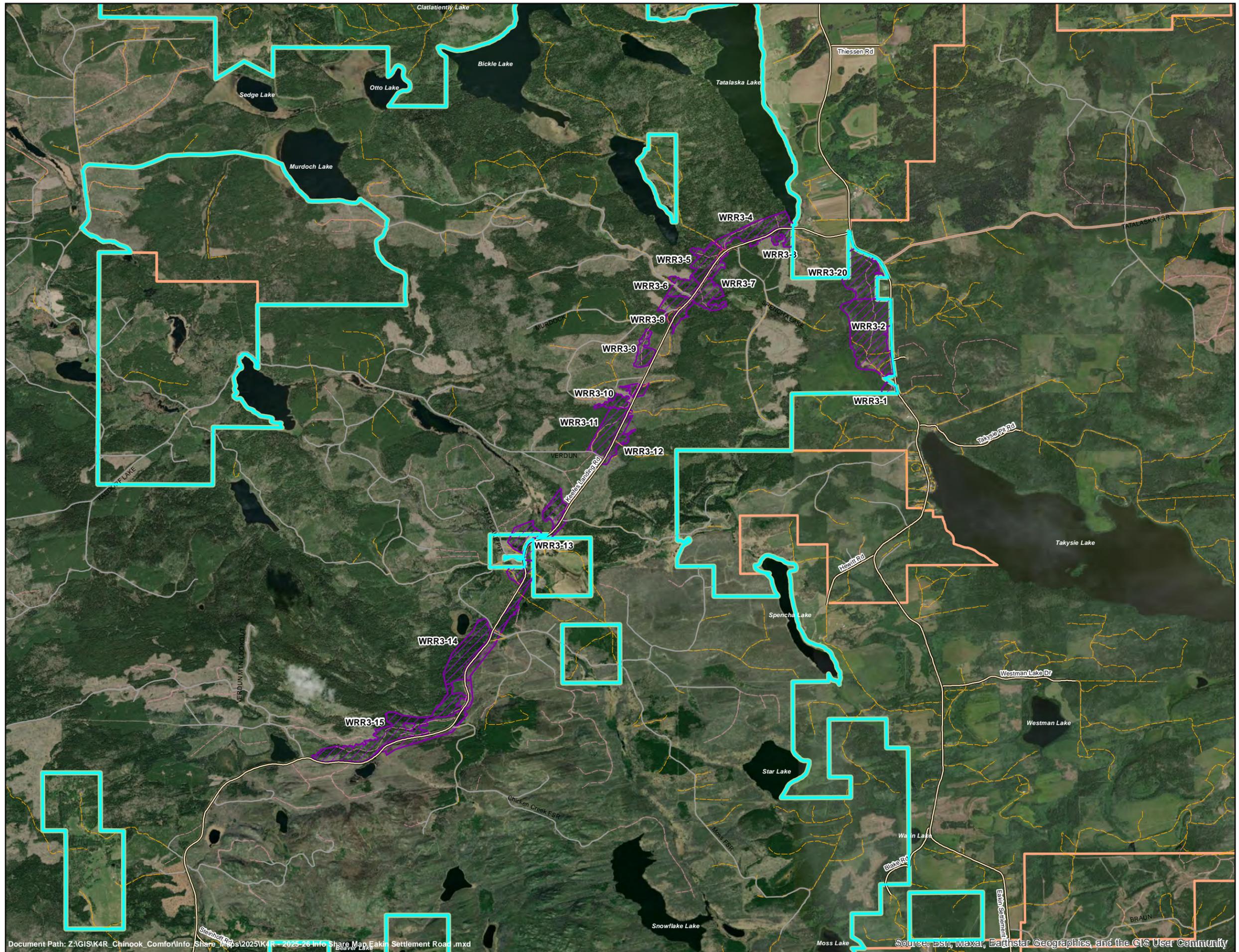
Forest Region: Northern Interior  
Forest District: Nadina  
Date: 2025-02-25

### Legend

-  Public Roads
-  Tenured Roads
-  Client Roads
-  Non-Tenured Roads
-  Proposed Blocks
-  K4R Boundary
-  Other Managed Licenses



Produced By:  Free Growing Forestry Ltd.  
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<b>A. PROJECT IDENTIFICATION</b>	
<b>PROJECT ID AND UNIT ID:</b> <b>K4R/FESBC Wildfire Risk Reduction – Prescription #1</b> Eakin Settlement Road, Southside Transfer Station Original WRR Shapes #1, 2, 20	<b>LAND OR TENURE HOLDER:</b> Chinook Community Forest Tenure K4R (CFA:K4R)
<b>LATITUDE/LONGITUDE:</b> 53° 54' 26" N, 125° 52' 46" W	<b>GEOGRAPHIC DESCRIPTION:</b> Eakin Settlement Road, Southside Transfer Station
<b>HIGHER-LEVEL PLAN(s):</b> Lakes District Land and Resource Management Plan – 2000 Lakes South Sustainable Resource Management Plan – 2003	<b>MAP REFERENCE NUMBER:</b> 93F 091

<b>B. FUEL TREATMENT PROJECT DESCRIPTION</b>			
<b>OBJECTIVE:</b>	<input checked="" type="checkbox"/> Public Safety	<input checked="" type="checkbox"/> Range Improvement	<input checked="" type="checkbox"/> Ecosystem Restoration
	<input type="checkbox"/> Recreation	<input type="checkbox"/> Wildlife Habitat	<input type="checkbox"/> Other:
<p>The Eakin Settlement – Southside Transfer Station Wildfire Risk Reduction area is on the south side of François Lake and is bordered by both private and Crown land. This unit is entirely within the Chinook Community Forest (CFA:K4R) tenure area and has been identified as a high priority corridor by the British Columbia Wildfire Service (BCWS) Wildfire Risk Reduction (WRR) Tactical Plan.</p> <p>The unit is within the François Lake Wildland Urban Interface (WUI) Risk Class (RC) polygon which has been assigned a risk class rating of 2 due to the prevalence of High Value Resources and Assets (HVRAs) namely the infrastructure and community values along the Eakin Settlement Road. The Provincial Strategic Threat Analysis (PSTA) has classified stands within the unit as having a Final Threat Rating (FTR) of high (7) to extreme (9). This rating considers the anticipated head fire intensities and spotting impacts for the fuel types present as well as historical fire densities. Initial spread index (ISI) roses generated by the Grassy Plains Hub (161) fire weather station indicate that prevailing winds during the core fire season are typically from the southwest.</p> <p>The objectives of this Prescription are to:</p> <ul style="list-style-type: none"> <li>• reduce the risk of wildfire to public safety by modifying forest fuels within wildland urban interface (WUI) areas – specifically the properties, residences, and infrastructure near the Eakin Settlement Road and specifically the Regional District of Bulkley Nechako Southside Transfer Station.</li> <li>• reduce the risk of wildfire to public safety by modifying fuels adjacent to critical evacuation corridors – specifically those along the Eakin Settlement Road network.</li> <li>• reduce the risk of wildfire to critical infrastructure and property by modifying forest fuels adjacent to, or likely to influence forest fuels adjacent to, identified values at risk.</li> <li>• develop ecologically appropriate and effective wildfire risk reduction solutions that give due regard to overlapping land management objectives and tenure obligations.</li> <li>• develop ecologically appropriate and effective wildfire risk reduction solutions that give due regard to site and stand conditions to maintain forest health and site productivity.</li> <li>• create defensible space for wildland fire fighters to anchor suppression strategies and tactics from during incident response by removing or modifying hazardous forest fuels in a way that improves firefighter safety and reduces fire behaviour potential.</li> </ul>			

STRATEGIES:	Wildfire risk reduction objectives will be achieved through the application of treatment regimes designed to address site and stand specific conditions. Treatments will reduce fire behaviour potential through the modification or removal of hazardous forest fuels as well as through reductions to surface fuel load contributions from downed woody material and treatment residues. Stand modifications are intended to reduce fire intensities and reduce continuity between forest fuels, and therefore reduce the potential for the propagation and persistence of crown fire as well as the potential for spotting. Treatment intensities increase with the level of hazard identified as well as in response to anticipated operational limitations. The prescribed treatment activities balance WRR objectives with established land use objectives and existing tenure obligations to reduce the risk of wildfire to public safety, promote natural processes and maintain ecosystem function, as well as to reduce open burning requirements through the utilization of biomass.
METHODS:	The proposed operational treatment for this Prescription area will be a Clearcut with reserves Silviculture System since these proposed areas requires significant stand modification to address the hazardous stand conditions. The stand condition is poor in this area due to the impacts of historical insect infestations and subsequent wind events. This area will provide moderate to marginal commercial fibre recovery opportunities. Initial stand entries require an overstory removal phase utilizing conventional ground-based harvest methods. Final treatment phases require surface fuel load reductions to dead and down material and treatment residues by mechanical and potentially manual surface fuel reductions to existing downed woody materials and treatment residues to ensure surface fuel load targets are achieved. Surface fuel reduction targets are intended to reduce surface fire intensities to a level below critical surface fire intensity thresholds (<2000 kW/m) under 90th percentile fire weather conditions as well as to comply with provincial fuel hazard abatement requirements. Treatment area design and specifications have been developed with consideration of the influence of topography.

C. TREATMENT UNIT (TU) SUMMARY						
TU	NET AREA (ha)	GROSS AREA (ha)	LEAVE AREAS (ha)	NP (ha)	NAR (ha)	SILVICULTURE SYSTEM AND TREATMENT REGIME (i.e. PRUNE THIN, PILE BURN, BROAD, CHAUL, ETC.)
1	25.6	32.5	6.9	0	25.6	<i>Silviculture System:</i> Clearcut with Reserve (CCRES) <i>Treatment Regimes:</i> Conventional Harvest (HARV), Hazard Tree Removal (HTR), Surface Fuel Reduction (SFR), Mechanical Pile and Burn (PILE BURN)
TOTALS	25.6	32.5	6.9	0	25.6	

D. SITE CHARACTERISTICS							
TU	CFFBPS FUEL TYPE	TIMBER TYPE	BGC SUBZONE, VARIANT & SITE ASSOC.	ELEVATION RANGE (m)	SLOPE POSITION	SLOPE RANGE (%)	ASPECT
1	C2	MATURE Coniferous	SBS dk 01	840 – 880	Middle	5 – 15	West
FUEL TYPE DETERMINATION		C2 – Boreal Black and White Spruce *(the C2 fuel type is used for representing mountain pine beetle (MPB) affected stands).					

E. SOIL CHARACTERISTICS							
TU	SOIL TEXTURE	DUFF DEPTH (cm)	COARSE FRAGMENTS (%)	SOIL DISTURBANCE LIMIT (%)	SOIL HARZARD RATING		
					Compaction	Erosion	Displacement
1	SL	3	55	10	M	M	M

<b>F. VALUES – FOREST AND RANGE PRACTICES ACT</b>				
<b>RIPARIAN &amp; LAKESHORE AREAS</b> - 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 <input checked="" type="checkbox"/> No <input type="checkbox"/>		Riparian features that occur within the Chinook Community Forest Agreement (CFA) tenure area have been managed in accordance with section 6.5.2 of the approved Chinook CFA Forest Stewardship Plan (FSP) 2016 and are otherwise compliant with the requirements of section 47 to 51, 52(2), and 53 of the FPPR.	
<b>RIPARIAN MANAGEMENT AREAS (RMAs)</b> - FPPR sections 51 and 52				
STREAM, LAKE, WETLAND ID	CLASS	RRZ (m)	RMZ (m)	SPECIFICATIONS FOR RIPARIAN OR LAKESHORE MANAGEMENT AREAS
Stream #1 (Hawley Creek)	S6	0	20	The proposed harvest area of WRR-20 is within the RMZ of the S6, but does not cross the S6.
Wetland #1	W1	10	40	The proposed harvest area on WRR-1 is within the RMZ of the W1, but is 15m away from the W1 edge.
<b>TEMPERATURE SENSITIVE STREAMS</b> - 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>		Treatment activities have not been prescribed in areas that contain, are adjacent to, or are a direct tributary to an identified temperature sensitive stream.	
<b>ROAD CONSTRUCTION IN RIPARIAN MANAGEMENT AREAS</b> - FPPR section 50				
Is road construction proposed in riparian management areas within the treatment area or an associated road permit (RP)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Road construction activities have not been proposed within the RMA of any identified riparian feature.	
<b>STREAM CROSSINGS</b> - 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>		There are no stream crossings associated with this prescription.	
<b>MAINTAINING STREAM BANK AND CHANNEL STABILITY ON S4, S5, and S6 STREAMS</b> - 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>		Treatment activities have not been prescribed within the RMZ of an S4, S5, or S6 stream that is a direct tributary to an S1, S2, or S3 stream, and therefore the basal area retention requirements for maintaining stream bank and channel stability provided by section 52 of the FPPR do not apply.	
<b>DOMESTIC WATER LICENCES</b> (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 <input type="checkbox"/> No <input checked="" type="checkbox"/>		The treatment area does not include water sources that are diverted for human consumption by a licensed waterworks. A private land parcel with an active water licences has been identified 1.0km to the East of the proposed treatment area. Since the licenced water works is upslope of the proposed treatment area, activities will not impact this licence.	

<b>LICENCED WATER WORKS</b> (inside or outside of a community watershed) - FPPR section 60				
Does the proposed treatment include areas that are within 100m of a licensed waterworks?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment and road construction activities have not been proposed within 100 m of a licensed waterworks that is within a community watershed.		
<b>FISHERIES SENSITIVE WATERSHED</b> - GAR section 14, FPPR section 8.1				
Are any activities proposed within a fisheries sensitive watershed?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed within a fisheries sensitive watershed.		
<b>COMMUNITY WATERSHED</b> - 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed within a community watershed.		
Will this project require road construction or deactivation within a community watershed?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment and road construction activities have not been proposed within a community watershed.		
<b>WATERSHED ASSESSMENT CONSIDERATIONS</b> - FRPA section 180 areas with "significant watershed sensitivity"				
Does the proposed treatment area include areas that have watershed assessment considerations?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed in areas identified as having significant watershed sensitivity or other watershed assessment considerations.		
<b>SOIL DISTURBANCE AND PERMANENT ACCESS STRUCTURES</b> - FPPR sections 35 and 36				
Treatment Unit (TU)	Proposed Max. Allowable Soil Disturbance (5% or 10%)	Proposed Max. Soil Disturbance for Roadside Work Areas	Proposed Max. Permanent Access Structures	Comments
1	10%	25%	5%	Proposed permanent access structures calculated at 2.1% and they will be planted once all treatment activities are complete.
Do the proposed Permanent Access Structures exceed 7% of the total area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Permanent access structures will not exceed 7%.		
<b>LANDSLIDES AND TERRAIN STABILITY</b> - FPPR section 37				
Does the proposed treatment area include areas where terrain stability is a concern?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Indicators of slope instability or landslides were not noted within the treatment area.		
<b>SUITABLE SECONDARY STRUCTURE</b> - FPPR section 43.1				
Does the proposed treatment area include a "targeted pine leading stand"?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed in a "targeted pine leading stand" as defined by section 1 of the FPPR. Additionally, the treatment activities proposed will occur entirely within a community forest agreement (CFA) license for the purpose of wildfire risk reduction and therefore, as per section 43.1(4) and 43.1(2) of the FPPR, the secondary stand structure retention specifications set out by section 43.1(1) of the FPPR do not apply.		

<b>UNGULATE WINTER RANGE - GAR section 12, FRPA sections 180 and 181, FPPR section 69</b>		
Does the proposed treatment area include areas within an Ungulate Winter Range?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Treatment activities have been proposed in a Special Resource Management Sub-Zone 4 with identified M1 ungulate winter habitat for Moose. Prior to the commencement of treatment activities the Agreement Holder, will ensure that the habitat requirements for the winter survival of ungulate species specified by s.6.4.2 of the FSP are maintained.
<b>WILDLIFE HABITAT AREA - GAR section 10, FRPA sections 180 and 181, FPPR section 69</b>		
Does the proposed treatment area include any wildlife habitat areas (WHA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area does not overlap any mapped or otherwise identified wildlife habitat areas.
<b>MIGRATORY BIRD CONVENTION ACT – 1994</b>		
Does the proposed treatment have the potential to impact migratory bird habitat?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The nest density ranking for this Prescription area is 2 and therefore is not likely to impact Migratory Bird Habitat.
<b>OBJECTIVES SET BY GOVERNMENT FOR WILDLIFE - FPPR section 7</b>		
Does the proposed treatment area include areas to which objectives for wildlife under FPPR section 7 apply?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	A legal order establishing objectives set by government for wildlife has not been enacted in the Lakes district and objectives are not specified in the Lakes LRMP or the Lakes South SRMP. Two notices, enabled under section 7(2) of the FPPR, specifying indicators of the amount, distribution and attributes of wildlife habitat required for the winter survival of ungulate species as well as for the survival of species at risk exist for the Lakes and Nadina districts, respectively.
<b>OBJECTIVES SET BY GOVERNMENT FOR BIODIVERSITY OBJECTIVES (Landscape Level) - FPPR Part 4 Division 5</b>		
Does the proposed treatment area include areas to which objectives for landscape level biodiversity under FPPR section 9 apply?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	The design of the proposed Wildfire Risk Reduction areas will resemble, both spatially and temporally, the patterns of natural disturbance that occur within the landscape.
<b>OBJECTIVES SET BY GOVERNMENT FOR BIODIVERSITY OBJECTIVES (Stand Level) - FPPR Part 4 Division 5</b>		
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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	One internal and three external Wildlife Tree Patch areas amounting to 6.9ha (21.2%) have been identified with this plan.
<b>RECREATION FEATURES - FRPA section 56 and 149, FPPR section 70</b>		
Does the proposed treatment area contain interpretive sites, recreation trails, recreation sites, recreation facilities that are of significant recreation value and are designated a resource feature?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area does not contain known interpretive sites, recreation trails, recreation sites, recreation facilities that are considered to be of significant recreation value and are designated a resource feature.

<b>VISUAL QUALITY OBJECTIVES - GAR section 7, FRPA sections 180 and 181, FPPR section 9.2</b>		
Is the proposed treatment within a scenic area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	WRR-1, 2 and 20 are not within a Scenic area, nor a VQO – Retention polygon.
<b>ARCHAEOLOGICAL RESOURCES/CULTURAL HERITAGE RESOURCES - FPPR section 10</b>		
Are there any known archaeological sites or cultural heritage resources that are important to First Nations within the proposed area?  No Referral to Land Manager is required if proposed TU is on the applicant's own First Nation Land.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	All three blocks show minor overlaps into CHR High Archeological Polygons. This being the case, there were no archaeological site or cultural heritage resources that were identified within the proposed treatment areas. In the event that additional CHR features are identified or otherwise made known during First Nation information sharing and consultation, measures to protect the CHR or address First Nation concerns must be communicated by an addendum to, or an amendment of, this prescription. In the event that previously unidentified CHR features are encountered while carrying out treatment activities, work in the area must stop, and an authorized treatment supervisor must be notified. The Agreement Holder will complete a cultural heritage resource evaluation (CHR) and provide management direction to protect or otherwise manage for the identified feature(s).
<b>INVASIVE PLANTS - FRPA section 47 and FPPR section 17</b>		
Is the introduction and spread of invasive plants likely as a result of the proposed treatment?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Review of the Invasive Alien Plant Program (IAPP) database indicated the presence of invasive plant species adjacent to the FTU along the Eakin Settlement Road. IAPP sites include Orange Hawkweed (OH), Meadow Buttercup (MB), Oxeye Daisy (OD), Scentless Chamomile (SH), Common Tansy (TC), and Yellow Hawkweed (YH).
<b>NATURAL RANGE BARRIERS - FRPA section 48, FPPR section 18</b>		
Are there natural range barriers within the proposed treatment area that are likely to be removed or rendered ineffective?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Fencelines are already in place throughout this entire area and the proposed harvesting will not impact any fencelines. In the event that fencelines are damaged, they will be repaired to the pre-damaged condition.
<b>SPECIES AT RISK – FPPA section 7</b>		
Are there species at risk present within the boundaries of the prescribed treatment area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No known occurrences of a species at risk were noted during field assessments or through review of BC Conservation Data Centre spatial data.
<b>LAND USE OBJECTIVES (Higher Level Plans and objectives set by Government under the <i>Land Act</i>)</b>		
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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	WRR-1 and WRR-2 both overlap into the Landscape Corridor (LC) identified within the Lakes South Sustainable Management Plan. Overlaps into LC do not exceed the documented limits and prescribed activities are not expected to conflict with other land use objectives not specifically addressed by this prescription.
Do the proposed activities conflict with land use objectives (higher level plans or objectives under the <i>Land Act</i> )?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Prescribed activities are not expected to conflict with other land use objectives not specifically addressed by this prescription.
Known and potential species at risk, windthrow hazard, old growth management areas (OGMA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities do not overlap into any OGMAs established by the Lakes South SRMP.
Do the proposed activities conflict with Provincial Priority Deferral Areas (PROV. DEF) identified by the Old Growth Strategic Review?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Proposed harvest area WRR-1 overlaps into the newly designated PROV. DEF by 5% each, and WRR-20 overlaps by 80%. The Agreement Holder has an exemption from the Nadina Resource District to allow for the overlap between the PROV. DEF areas and all Wildfire Risk Reduction proposed areas.

<b>G. OTHER CONSIDERATIONS AND REQUIREMENTS</b>		
<b>CONSULTATION – FIRST NATIONS:</b> Info-share was initiated on April 22, 2022 and Adequacy Letter is called: 10455-50/22 K4R WRR IS1 and is dated July 04, 2022		
<b>FIRST NATION</b>	<b>CONCERNS IDENTIFIED AND MEASURES TO ADDRESS</b>	
Nee Tahi Buhn Band	No concerns brought forward.	
Skin Tyee Nation	No concerns brought forward.	
Stellat'en First Nation	No concerns brought forward.	
Wet'suwet'en First Nation	No concerns brought forward.	
Office of the Wet'sewet'en	No concerns brought forward.	
First Nations consultation complete?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<b>CONSULTATION – GENERAL, EXISTING TENURE HOLDERS (Forest, Range, Guide Outfitters, Trappers):</b> Info-share was initiated for existing Tenure Holders on April 22, 2022.		
<b>Tenure Holder</b>	<b>Concerns?</b>	<b>Measures proposed to address licensee's concerns</b>
Range: George Amendt	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Carl Doglione	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Sharon Robertson	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Ootsa Lake Cattle Company	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Victor Bateson	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Jonathan Solecki	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Jack Burt	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Clint Lambert	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Elizabeth McEntire	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Harold Moroski	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T014	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T017	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T018	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T019	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T020	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Guide Outfitter: James Lancaster	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Guide Outfitter: Brett Hall	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Guide Outfitter: Gary Blackwell	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
<b>PRIVATE PROPERTY</b>		
Does private property border the proposed treatment area?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	There is private land immediately adjacent to the SE corner of WRR-20 and immediately south of WRR-1. The Regional District, Southside Transfer Station Property is just north of WRR-1.
<b>SMOKE MANAGEMENT</b>		
Does a smoke management plan beyond OBSCR exist for the proposed treatment area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area is within a Medium Smoke Sensitivity Zone and therefore the <i>August 2021 Community Wildfire Risk Reduction Open Burning Smoke Control Regulations</i> will be followed for the burning of debris piles.
<b>SAFETY</b>		
Have any specific safety concerns been identified in or adjacent to the proposed treatment area?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	The level of blowdown within these proposed treatment areas are very high. Cattle are no longer able to use this area as it is completely impassable.

UTILITIES		
Are utilities located in or adjacent to the proposed treatment area? i.e. power lines, gas lines, etc.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	All three of the proposed shapes within this Prescription area are adjacent to utility lines. WRR-1 is the only treatment area which overlaps with the utility line, therefore, BC Hydro will be informed prior to initiation of harvest.
ACCESS CONTROL		
Are there any foreseen issues with access and access control during and post treatment?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	There is no alternate access to the proposed treatment areas, so as long as there is active harvesting signs just beyond the one access road there should not be any issues with controlling access.
TRAFFIC CONTROL		
Is traffic control required at any point during operations?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Traffic control will likely be required when operations occur on WRR-1 due to the close proximity to the Southside Transfer Station Access Road and the Eakin Settlement Road to ensure the safety of operators, workers, and the public. There is no need for traffic control on WRR-2 and WRR-20 because they each have a 50m buffer that was previously harvested along the Eakin Settlement Road.
OTHER (E.g Public Notification)		
The landowners of private land parcels that are adjacent to the treatment activities area must be notified prior to activities commencing and notification to the Community should be posted on Chinook Community Forest's Facebook Page. BC Hydro also needs to be informed prior to harvest start up.		

H. STAND AND STOCK TABLE
<p>Is merchantable timber cutting prescribed? If yes, please provide details below.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>About 69.4% percent of the treatment unit contains merchantable timber. The intent of this project is to recover as much fibre as possible from these proposed areas. The appropriate tenure authorization method will be applied for once timber purchase agreements have been arranged.</p>
<p>Are there any challenges to utilizing merchantable material? If yes, please provide details below.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>There is extensive blowdown, dead standing and ladder fuels throughout the Prescription area. Much of the volume that is down on the ground and overlapping has been dead and down for many years now. The hope is that the merchantable stems can be separated out efficiently and effectively from the stems that cannot to aid in a seamless flow of merchantable timber from the Prescription area. The plan would then be for the non-merch material to also potentially be shipped to a biomass facility, or potentially that a grinding unit would arrive on site to process the debris. Alternatively, debris may be left on site for a small period of time so that community members may come and load out the material for firewood.</p>

TREATMENT SPECIFICATIONS SUMMARY	
TU 1	TREE REMOVAL/RETENTION STRATEGY BY SIZE/SPECIES (Summarize specifications identified in table above)
1	<p><b>Silviculture Systems:</b> Clearcut with Reserve (CCRES)</p> <p><b>Treatment Regimes:</b> Conventional Harvest (HARV), Hazard Tree Removal (HTR), Surface Fuel Reduction (SFR), Mechanical Pile and Burn (PILE BURN)</p>

**TREATMENT SPECIFICATION RATIONALE**

Treatment activities will utilize a clearcut with reserve silviculture system and primarily requires the use of mechanical treatment methods. Initial treatment phases will remove remnant hazardous overstory fuels consisting of 139.5 m<sup>3</sup>/ha hybrid spruce and lodgepole pine – approximately 46% of this volume is dead potential lodgepole pine. Secondary treatment phases will require surface fuel reductions to the specified targets by means of mainly mechanical methods, with the possibility of manual treatment methods. Treatment activities are expected to transition stands from a C-2 fuel type (Boreal Spruce \*with MPB affected stands) to a C-6 (Conifer Plantation) and reduce surface fire intensities significantly. Post treatment fire intensities will be dependant on the availability of an appropriate fire management stocking standard and subsequent stand tending activities.

To reduce predicted fire behaviour the following treatment specifications have been applied:

- Retain all live deciduous trees except where their removal is necessary to address a safety concern.
- Remove all live and dead overstory and understory coniferous trees unless the tree is to be retained to achieve biodiversity objectives or the tree has been identified as a wildlife habitat or cultural heritage feature.
- Reduce <7.0 cm surface fuel loads to 0.5 kg/m<sup>2</sup> (+/- 0.25 kg/m<sup>2</sup>).
- Reduce >7.0 cm surface fuel loads to 2.5 kg/m<sup>2</sup> (+/- 0.5 kg/m<sup>2</sup>).

<b>TU 1: STAND AND STOCK TABLE DATA</b>									
Species and Diameter Class <sup>1</sup>	Crown Base Height Range (m)	Average Tree Height (m)	STEMS PER HECTARE (sph)			VOLUME PER HECTARE (m <sup>3</sup> /ha) <sup>2</sup>			Basal Area (m <sup>2</sup> )
			Existing	Cut	Leave	Existing	Cut	Leave	Existing
<b>Layer 1 (≥ 22.5 cm - 27.5 cm dbh)</b>									
Pl	-	23	340	340	0	74	74	0	11.5
Sx	4.7	22	159	159	0	135	135	0	21.1
Total Dead Potential			302	302	0	116	116	0	21.0
Total Live			197	197	0	93	93	0	11.6
Total All Species		22	499	499	0	209	209	0	32.6
Total Conifers		22	499	499	0	209	209	0	32.6
<b>Layer 1 (≥ 17.5cm – 22.5 cm dbh)</b>									
Pl	-	20	74	74	0	13	13	0	2.3
Sx	4.1	16	92	92	0	11	11	0	2.3
Total Dead Potential			74	74	0	13	13	0	2.3
Total Live			92	92	0	11	11	0	2.3
Total All Species		18	166	166	0	24	24	0	4.6
Total Conifers		18	166	166	0	24	24	0	4.6
<b>Layer 1 (≥ 12.5 cm - 17.5 cm dbh)</b>									
Pl	-	20	132	132	0	10	10	0	2.3
Total Dead Potential			132	132	0	10	10	0	2.3
Total Live			0	0	0	0	0	0	2.3
Total All Species		20	132	132	0	10	10	0	2.3
Total Conifers		20	132	132	0	10	10	0	2.3
<b>TOTALS: Layer 1</b>									
<b>Total Layer 1 - All Species</b>	<b>4.4</b>	<b>23</b>	<b>797</b>	<b>797</b>	<b>0</b>	<b>243</b>	<b>243</b>	<b>0</b>	<b>39.5</b>
Total Layer - Conifers Only	4.4	23	797	797	0	243	243	0	39.5

<sup>1</sup> Modify diameter classes as required to suite treatment.

<sup>2</sup> A professional estimate is required for any merchantable cutting

SURFACE FUEL LOADING (kg/m <sup>2</sup> )					
Size Class (cm)	Existing (kg/m <sup>2</sup> )	Existing Distribution	Target (kg/m <sup>2</sup> )	Target Distribution	Methodology Used
Fine Woody Debris (</=7cm)	0.70	Moderately continuous distribution with accumulations associated with suspended and jackpotted lodgepole pine.	0.5 kg/m <sup>2</sup> (+/- 0.25 kg/m <sup>2</sup> )	Reduce to target levels with an acceptable range of ±0.25 kg/m <sup>2</sup> . Maintain poor continuity between residual pieces and avoid creating aggregations.	Line Intersect Sampling Method
Large Diameter Woody Debris (>7cm – 20cm)	4.80	Continuous distribution of lodgepole pine damaged by mountain pine beetle as well as some hybrid spruce damaged by wind. Pieces typically have a decay class of 2 to 3.	2.5 kg/m <sup>2</sup> (+/- 0.5 kg/m <sup>2</sup> )	Reduce below target levels with an acceptable range of ±0.5 kg/m <sup>2</sup> . Ensure poor continuity between retained pieces and avoid creating aggregations.	
Coarse Woody Debris (CWD) (20cm+)	4.86				
Crown Closure (%): 20	Existing Total: 10.36 kg/m <sup>2</sup>		Target: 3.0 kg/m <sup>2</sup> (+/- 0.75 kg/m <sup>2</sup> )		

BIODIVERSITY AND FOREST HEALTH CONSIDERATIONS AND TARGETS	
COARSE WOODY DEBRIS (CWD) RETENTION TARGET – Distribution	Using the <i>May 2022 Chief Forester’s Guidance on Coarse Woody Debris Management on Wildfire Mitigation Treatments</i> , the recommendation is to leave 5 CWD pieces per hectare in the SBS dk.
WILDLIFE TREE RETENTION TARGET	Retain up to 10 sph of large diameter (>30 cm dbh) dead potential stems as wildlife snags. Retain one (1) patch (20 x 20 m) of suitable secondary stand structure per hectare for wildlife habitat. Retention patches must be allocated so as to maintain discontinuity to adjacent stands, be anchored around deciduous and dead potential tree retention where practicable, and contain 400-600 sph of healthy poles and/or saplings (where they exist) with good form and vigour. Retain three (3) to five (5) high stumps (>1.0 m) per hectare adjacent to retention patches to ensure they do not incur damage as a result of <u>skidding/yarding activities</u> .
FOREST HEALTH- Should include sections such as agent, affected species, incidence rating, mortality, and targets	Stands have been assessed to be in poor condition due to the impacts of forest health factors. Lodgepole pine overstory trees exhibited high mortality (>70%) as a result of historical mountain pine beetle infestation. Significant wind damage has occurred where dead lodgepole pine have succumb to wind and snow loads and have transitioned to the forest floor. Additionally, windthrow contributions from residual stand components are anticipated to increase as stand condition continues to decline and stand density decreases. Evidence of incipient mountain pine beetle infestation was not noted. Up to 5% of the stand is affected by Tomentosus Root Rot. <b>WINDTHROW RISK EVALUATION</b> Windthrow assessments indicate the proposed treatment activities will result in a moderate potential for future windthrow risk due to topographic location due to prevailing wind directions. Wind damage is common in stands that have been impacted insect occurrences mainly from historical mountain pine beetle infestations, yet also due to root rot.

<b>I. TREATMENT DESCRIPTION</b>
<b>MERCHANTABLE TIMBER CUTTING</b>
<p><b>ROADS, LANDINGS AND TRAILS:</b>            Access to the unit will be gained via Eakin Settlement Road, then via the Southside Transfer Station Access Road. Proposed access associated with the treatment area include one (1) road permit, two (2) on-block spur roads.            The proposed road permit commences at the end of the Southside Transfer Station Access Road.  <b>All additional access structure required to accommodate the prescribed treatment activities, or otherwise necessitated by site conditions or to address a safety concern, must be approved by an authorized treatment supervisor.</b></p>
<p><b>FELLING:</b>            Felling activities will employ mechanical falling equipment (i.e. feller-bunchers, harvesters).            If or where any hand felling activities are used, they must be carried out by Fallers certified to the BC Faller Training Standard (BCFTS) with the skills and experience to achieve the treatment specifications without damaging residual stand components.</p>
<p><b>YARDING/SKIDDING:</b>            Conventional ground-based primary transport equipment (i.e. rubber-tired skidders, forwarders, etc.) will be utilized to carry out skidding/yarding activities. If rubber-tired skidders are utilized, retain high stumps (&lt;1.0 m in height) adjacent to retained trees to prevent retention from incurring damage as a result of yarding and skidding activities.</p>
<p><b>LOADING AND HAULING:</b>            Loading activities will be carried out within the right of way of proposed access structures and any required landings. Hauling activities will be carried out using an appropriate logging truck configuration for the harvest systems employed and processing facility requirements.</p>
<p><b>SLASH DISPOSAL:</b>            Treatment residues and existing downed woody material in excess of prescribed &gt;7.0 cm targets will be brought to road right of ways to facilitate biomass utilization where practicable. Material should be marketed to local processing facilities where a biomass fibre recovery opportunity exists. Where a biomass recovery opportunity does not exist alternative markets/users should be explored, or the material should be piled and burned on site.            The quantity and distribution of biomass resulting from initial mechanical treatment phases will vary with the harvest systems used. Roadside processing may improve biomass recovery opportunities relative to processing at the stump, especially where selection systems have been proposed. Processing at the stump, while improving other objectives, will result in increased dispersed fuel loads and increase the requirement for fire hazard abatement activities.</p> <p><b>STRATEGIES TO IMPROVE BIOMASS UTILIZATION:</b></p> <ul style="list-style-type: none"> <li>- Aggregate treatment residues, unutilized dead and down material, and bucking waste within utilization requirements for biomass facilities within road right of ways.</li> <li>- Avoid incorporating mineral soil and other contaminants into piles.</li> </ul>
<b>STAND MODIFICATION TREATMENTS</b>
<p><b>BRUSHING:</b> Manual brushing treatments have not been prescribed.</p>
<p><b>PRUNING:</b> Pruning treatments have not been prescribed.</p>
<p><b>THINNING:</b> Thinning treatments have not been prescribed.</p>
<p><b>DEBRIS PILING:</b>            Un-utilized biomass – including treatment residues and residual downed woody material – in excess of prescribed surface fuel load reduction targets outside of right of ways will be aggregated into debris piles. Debris piles must be a minimum of ½ the height of the pile’s base width with taller piles being preferred. Surface fuels with a decay class of 4 or 5 do not contribute to surface fuel load calculations and may be retained on site.</p> <p><b>STRATEGIES FOR DEBRIS PILING:</b></p> <ul style="list-style-type: none"> <li>- Carry out debris piling activities in snow free conditions.</li> <li>- Construct piles in locations that prevent retention from incurring heat damage and crown scorching during pile burning activities (i.e. within natural openings).</li> <li>- Ensure piles contain a mix of material sizes and decay classes to facilitate effective ignition and complete combustion.</li> <li>- Avoid incorporating mineral soil and other non-combustible debris into piles.</li> </ul>

<p><b>PILE BURNING:</b></p> <p>Burning activities must be carried out in compliance with the Wildfire Act and its Regulation as well as the Environmental Management Act (EMA); namely the Open Burning and Smoke Control Regulation (OBSCR).</p> <p>The treatment area is within a Medium Smoke Sensitivity Zone (SSZ) as indicated by Smoke Sensitivity Zone map #38 – Nechako River (93F). All open burning activities within the Eakin Settlement area are subject to the requirements of section 9, 10, 11, 13, 14, and 15 of OBSCR. However, the FTU falls under a plan for community wildfire risk reduction – the Nadina South Side Wildfire Risk Reduction Tactical Plan – and therefore may be carried out in accordance with section 23 of OBSCR where open burning activities are anticipated to last less than one (1) day, or under the conditions outlined in an approval issued under section 15 of the EMA.</p> <p>Private residences or business buildings have been identified &lt;150 m of the treatment area</p> <p>If pile burning activities will be carried out in a manner that meets the definition of a Category 3 Open Fire, as defined by the Wildfire Regulation, a Burn Registration Number (BRN) will be required. A BRN can be obtained from BCWS by calling 1-888-797-1717 or emailing hpr.1800@gov.bc.ca.</p> <p><b>STRATEGIES FOR PILE BURNING</b></p> <ul style="list-style-type: none"> <li>- Ensure all piled debris is dry and seasoned as per the definition provided by the OBSCR.</li> <li>- Obtain custom venting forecasts to identify optimal burning opportunities.</li> <li>- Consider the utilization of an Air Curtain Burner.</li> </ul>
<p><b>MULCHING:</b> Mulching treatments have not been prescribed.</p>
<p><b>MASTICATION:</b> Mastication treatments have not been prescribed.</p>
<p><b>GRINDING:</b></p> <p>In the event that debris can sold to a biomass facility, it is likely that a grinding unit will come directly to the site to prepare the debris into the exact specifications to be shipped via a chip transport truck. If this phase is planned to occur, ensure that road access is maintained to all debris piles locations.</p>
<p><b>PRESCRIBED FIRE:</b> Prescribe Fire treatments have not been prescribed.</p>
<p><b>PLANTING:</b></p> <p>Fire Management Stocking Standards are not provided in the Agreement Holders current approved FSP and therefore an amendment to the Chinook CFA FSP 2016 stocking standards is being proposed as is shown in the Stocking Standard Table below. It is recommended that the Wildfire Risk Reduction stocking standard be requested for all Chinook CFA Wildfire Risk Reduction project areas as these standards are in line with the <i>BCWS Fuel Management Prescription Guidance 2022</i>.</p>
<p><b>OTHER:</b> N/A</p>
<p><b>AUTHORIZATION AND TIMBER TENURE</b></p>
<p><b>FRPA Section 52 (1) (b):</b></p> <p>The Agreement Holder (CFA:K4R) maintains the timber rights for all merchantable timber harvested as a result of treatment implementation unless relinquished by the CFA holder and authorized by FPRa Section 52 (1) (b).</p>
<p><b>Forestry License to Cut (FLTC):</b> Not anticipated.</p>
<p><b>Park Use Permit:</b> N/A</p>
<p><b>Road Permit or Road Use Permit:</b> One new Section for R21201 will be applied for with this Prescription area.</p>
<p><b>Other (i.e. local government, utilities, etc.):</b> Contact BC Hydro regarding close proximity of WRR-1 to the utility line.</p>

<b>J. POST TREATMENT</b>
<p><b>EXPECTED VEGETATION RESPONSE:</b>            Treatment activities are anticipated to result in a moderate vegetative response. Increases to shrub and herbaceous cover and the ingress of various grasses is expected throughout the treatment areas. The establishment of coniferous regeneration is expected to be variable, although site disturbance associated with treatment activities has the potential to promote root suckering where trembling aspen stand components exist.</p>
<p><b>ADDITIONAL TREATMENTS OR MAINTENANCE:</b>            Where clearcut systems have been employed, carry out stand monitoring at an interval that aligns with the required silvicultural assessments. The results of silviculture assessments will inform the mid to long term requirement for maintenance.</p>
<p><b>SILVICULTURE OBLIGATIONS:</b> Do silvicultural obligations apply to the treatment area? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p><b>PLANTING:</b> Is planting a treatment identified in this prescription or required as a legislative obligation? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>            In SU 1 an even-aged stocking standard has been applied using the table below.</p>

<b>STOCKING STANDARDS:</b>													
<b>APPLICABLE EVEN-AGED STOCKING STANDARDS:</b>													
TU	SU	Stocking Standard ID	Species (Pref.)	Species (Accep.)	Well-Spaced Stem/ha				Minimum Height (m)			Regen Delay	Free Growing (years)
					TSS	MSS		MITD	PI	Others	RTH (%)		
						Pref. & Acc.	Pref.						
1	1	TBD	PLI SX FDI LW AT EP AC	-	1200	700	600	2.0	2.0	1.0	-	4	20

<b>K. Outstanding Works</b>	
1.) Obtain the appropriate authorizations for the FRPA Section 52(1)(b) and for the new section required to R21201 road permit.	
2.) Obtain District Manager approval for the proposed alternative stocking standards, or upon the approval of the Chinook CFA:K4R FSP adopt the applicable fire management stocking standards if appropriate.	
3.) If required, obtain the appropriate approval(s) – under section 15 of the EMA – to exempt pile burning activities from the requirements of sections 9, 10, 11, 13, 14 and 15 and Part 3 of OBSCR.	
4.) Obtain the appropriate authorizations or exemptions for those portions of the treatment area that are within a Priority Deferral Area identified by the Old Growth Strategic Review and the Old Growth Technical Advisory Panel.	
<b>L. ADMINISTRATION</b>	
<b>PREPARATION</b>	
FOREST PROFESSIONAL NAME ( <i>Printed</i> ): Jennifer Hill, RPF	FOREST PROFESSIONAL SIGNATURE: 
MEMBER NUMBER: 3889	DATE: 2023-01-31
<b>M. ATTACHMENTS</b>	
MAPS: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	FIELD DATA CARDS: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
WUI WTA Plots and Photos: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	CRUISE DATA: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
AIR PHOTOS/IMAGERY: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	BURN PLAN: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
MODELING/DATA ANALYSIS: Yes <input type="checkbox"/> No <input type="checkbox"/>	OTHER: Yes <input type="checkbox"/> No <input type="checkbox"/>
SURFACE FUEL LOADING DATA: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
TERRAIN STABILITY ASSESSMENT: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	VISUAL IMPACT ASSESSMENT: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Completed By: Date:	Completed By: Date:
ARCHAEOLOGY IMPACT ASSESSMENT Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	BIOLOGIST ASSESSMENT Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Completed By: Date:	Completed By: Date:
ADDITIONAL COMMENTS: MAPS: The following maps have been provided to support the prescribed activities: • Prescription Map • Ortho Treatment Map • Location Map	

## K4R / FESBC Wildfire Risk Reduction Prescription Map #1

Nadina Natural Resource District  
 Northwest Fire Centre- Nadina Zone  
 FMTU-Eakin Settlement Road  
 CFA-K4R  
 93F.091  
 Field Work By: Jennifer Hill  
 Map Produced By Loretta Johnson  
 Date: November 29, 2022

Block	WTRA	TU-1	TU-2	GROSS Ha
WWR-1	0.6	1.4	0	2.0
WRR-2	6.1	17.6	0	23.7
WWR-20	0.2	6.6	0	6.8
<b>Totals</b>	<b>6.9</b>	<b>25.6</b>	<b>0</b>	<b>32.5</b>

TREATMENT UNIT (TU) SUMMARY							
TU	SU	NET AREA (ha)	GROSS AREA (ha)	LEAVE AREAS (ha)	NP (ha)	NAR (ha)	TREATMENT REGIME
1	1	25.6	32.5	6.9	0	25.6	CCRES / HARV / SFR / Mechanical Debris Pile & Burn
<b>TOTALS</b>		<b>25.6</b>	<b>32.5</b>	<b>6.9</b>	<b>0</b>	<b>25.6</b>	

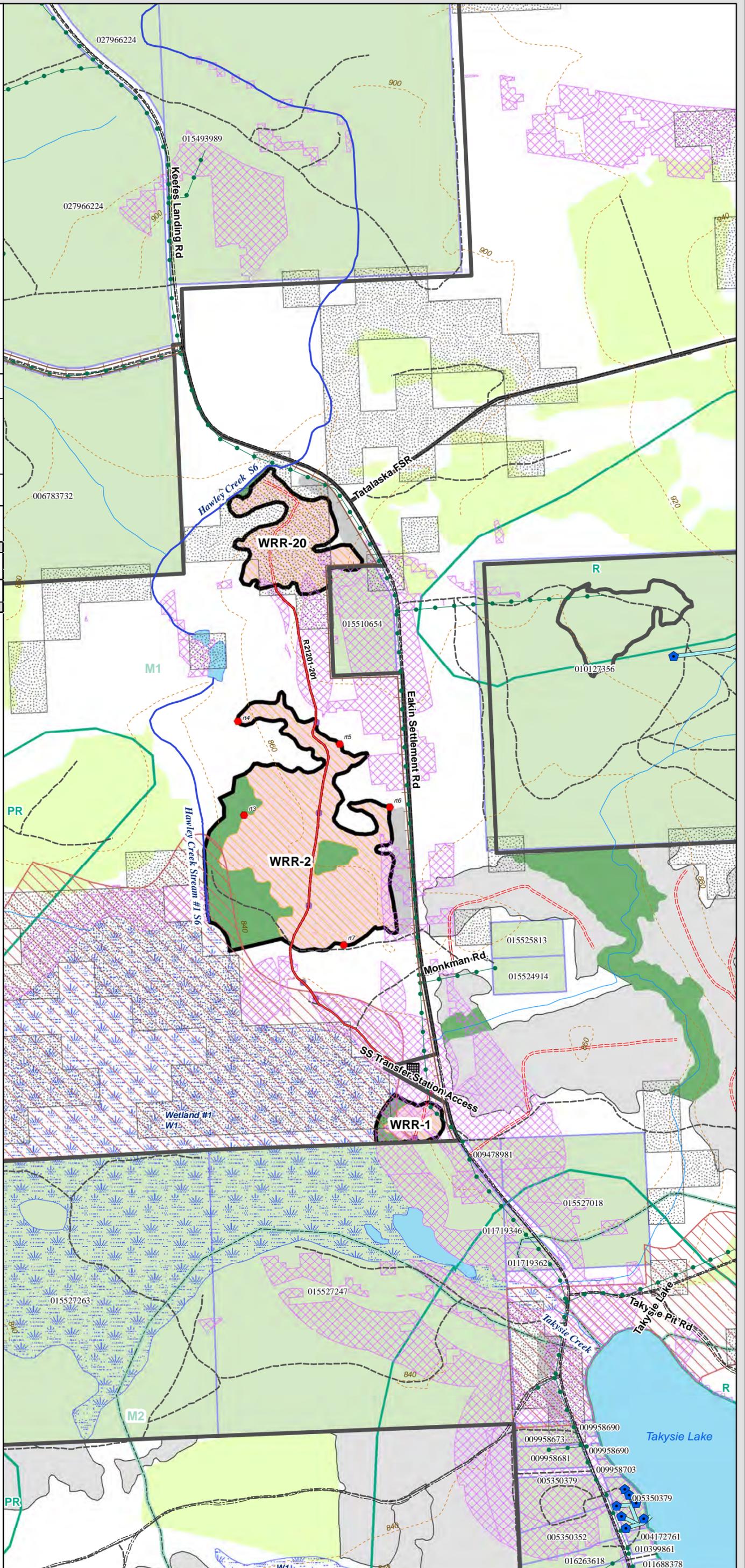
### Legend

- Water Licenced Work Location
- Transfer Station
- Proposed Road Permit
- Fence Line
- Unclassified Streams
- S6
- Water Licenced Work Lines
- RT
- Road Station
- Utility Line
- contours
- spur, proposed
- Non Tenured Roads
- Tenured Roads
- Provincial Old Growth Deferral Areas
- Lakes High Arch
- Landscape Corridors
- Visual Quality Objectives
- Ungulate\_Winter\_Range
- Secondary Hwy
- WTRA
- Private Land
- Silviculture Openings
- Lakes
- Wetlands
- Forest Tenure Applications
- Managed License Boundary
- Project Boundary
- SU 1 - SBS dk 01
- Treatment Unit**
- Type I



0 50 100 200 300 400 Meters

1:10,000



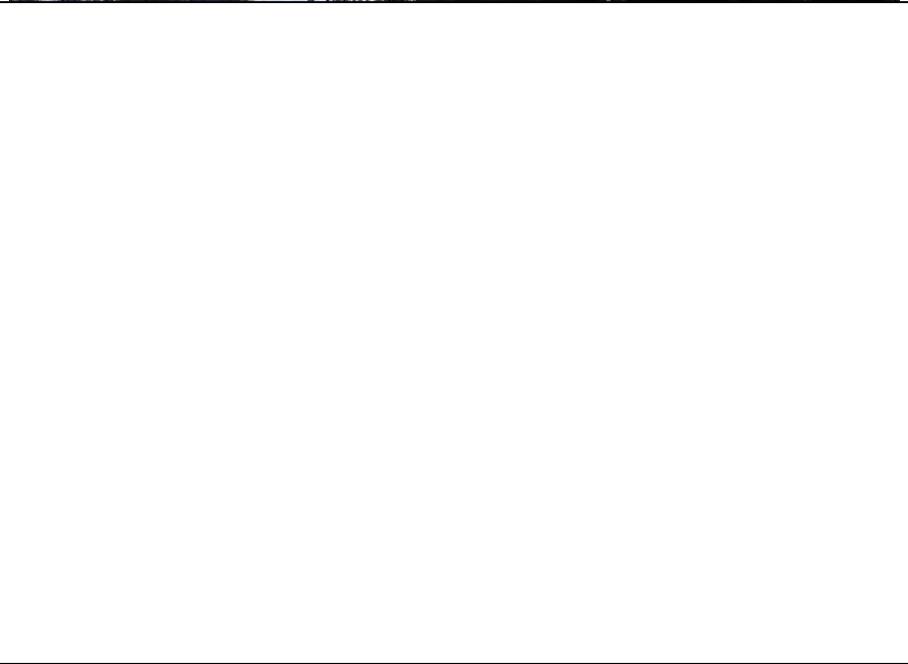
Rx 1 – Ground Fuel Photos:



Rx 1 – Ladder Fuels Photos:



Rx 1 – Crown Photos:



<b>A. PROJECT IDENTIFICATION</b>	
<b>PROJECT ID AND UNIT ID:</b> <b>K4R/FESBC Wildfire Risk Reduction – Prescription #2</b> 0.8 km to 2.0 km Keefe’s Landing Road Original WRR Shapes #3, 4, 5	<b>LAND OR TENURE HOLDER:</b> Chinook Community Forest Tenure K4R (CFA:K4R)
<b>LATITUDE/LONGITUDE:</b> 53° 55’ 08” N, 125° 54’ 34” W	<b>GEOGRAPHIC DESCRIPTION:</b> Keefe’s Landing Road, 0.8km to 2.0km
<b>HIGHER-LEVEL PLAN(s):</b> Lakes District Land and Resource Management Plan – 2000 Lakes South Sustainable Resource Management Plan – 2003	<b>MAP REFERENCE NUMBER:</b> 93F 091

<b>B. FUEL TREATMENT PROJECT DESCRIPTION</b>			
<b>OBJECTIVE:</b>	<input checked="" type="checkbox"/> Public Safety	<input checked="" type="checkbox"/> Range Improvement	<input checked="" type="checkbox"/> Ecosystem Restoration
	<input type="checkbox"/> Recreation	<input type="checkbox"/> Wildlife Habitat	<input type="checkbox"/> Other:
<p>Prescription Area #2: Keefe’s Landing Road Wildfire Risk Reduction (WRR) area is on the south side of François Lake and is bordered by both private and Crown land. This unit is entirely within the Chinook Community Forest (CFA:K4R) tenure area and has been identified as a high priority corridor by the British Columbia Wildfire Service (BCWS) WRR Tactical Plan.</p> <p>The unit is within the François Lake Wildland Urban Interface (WUI) Risk Class (RC) polygon which has been assigned a risk class rating of 2 due to the prevalence of High Value Resources and Assets (HVRAs) namely the infrastructure and community values along Keefe’s Landing Road. The Provincial Strategic Threat Analysis (PSTA) has classified stands within the unit as having a Final Threat Rating (FTR) of high (7) to extreme (9). This rating considers the anticipated head fire intensities and spotting impacts for the fuel types present as well as historical fire densities. Initial spread index (ISI) roses generated by the Grassy Plains Hub (161) fire weather station indicate that prevailing winds during the core fire season are typically from the southwest.</p> <p>The objectives of this Prescription are to:</p> <ul style="list-style-type: none"> <li>• reduce the risk of wildfire to public safety by modifying forest fuels within wildland urban interface (WUI) areas – specifically the properties, residences, and infrastructure near the Keefe’s Landing Road.</li> <li>• reduce the risk of wildfire to public safety by modifying fuels adjacent to critical evacuation corridors – specifically those along the Keefe’s Landing Road network.</li> <li>• reduce the risk of wildfire to critical infrastructure and property by modifying forest fuels adjacent to, or likely to influence forest fuels adjacent to, identified values at risk.</li> <li>• develop ecologically appropriate and effective wildfire risk reduction solutions that give due regard to overlapping land management objectives and tenure obligations.</li> <li>• develop ecologically appropriate and effective wildfire risk reduction solutions that give due regard to site and stand conditions to maintain forest health and site productivity.</li> <li>• create defensible space for wildland fire fighters to anchor suppression strategies and tactics from during incident response by removing or modifying hazardous forest fuels in a way that improves firefighter safety and reduces fire behaviour potential.</li> </ul>			

<b>STRATEGIES:</b>	<p>Wildfire risk reduction objectives will be achieved through the application of treatment regimes designed to address site and stand specific conditions. Treatments will reduce fire behaviour potential through the modification or removal of hazardous forest fuels as well as through reductions to surface fuel load contributions from downed woody material and treatment residues. Stand modifications are intended to reduce fire intensities and reduce continuity between forest fuels, and therefore reduce the potential for the propagation and persistence of crown fire as well as the potential for spotting. Treatment intensities increase with the level of hazard identified as well as in response to anticipated operational limitations.</p> <p>The prescribed treatment activities balance WRR objectives with established land use objectives and existing tenure obligations to reduce the risk of wildfire to public safety, promote natural processes and maintain ecosystem function, as well as to reduce open burning requirements through the utilization of biomass.</p>
<b>METHODS:</b>	<p>The proposed operational treatment for this TU 1 of this Prescription area will be a Clearcut with Reserves (CCRES) Silviculture System and TU 2 will be a Clearcut with Dispersed Retention (CCDRET) Silviculture System as both TU's requires significant stand modification to address the hazardous stand conditions. Stand conditions are poor in these areas due to the impacts of historical insect infestations and subsequent wind events. The prescription area will provide moderate to marginal commercial fibre recovery opportunities. Initial stand entries require an overstory removal phase utilizing conventional ground-based harvest (HARV) methods. Final treatment phases require surface fuel load reductions (SFR) to dead and down material and treatment residues by mechanical surface fuel reductions to existing downed woody materials and treatment residues to ensure surface fuel load targets are achieved.</p> <p>Surface fuel reduction targets are intended to reduce surface fire intensities to a level below critical surface fire intensity thresholds (&lt;2000 kW/m) under 90th percentile fire weather conditions as well as to comply with provincial fuel hazard abatement requirements.</p> <p>Prescription area design and specifications have been developed with consideration of the influence of topography.</p>

<b>C. TREATMENT UNIT (TU) SUMMARY</b>							
TU	SU	NET AREA (ha)	GROSS AREA (ha)	LEAVE AREAS (ha)	NP (ha)	NAR (ha)	TREATMENT REGIME (i.e. PRUNE THIN, PILE BURN, BROAD, CHAUL, ETC.)
1	1	11.1	12.0	0.9	0	11.1	CCRES / HARV / SFR / Mechanical Debris Pile & Burn
2	1	5.5	7.0	1.5	0	5.5	CCDRET / HARV / SFR / Mechanical Debris Pile & Burn
<b>TOTALS</b>		<b>16.6</b>	<b>19.0</b>	<b>2.4</b>	<b>0</b>	<b>16.6</b>	

<b>D. SITE CHARACTERISTICS</b>							
TU	<u>CFFBPS FUEL TYPE</u>	TIMBER TYPE	BGC SUBZONE, VARIANT & SITE ASSOC.	ELEVATION RANGE (m)	SLOPE POSITION	SLOPE RANGE (%)	ASPECT
1	C2	MATURE Coniferous	SBS dk 01	855 – 890	Middle	5 – 15	West (East)
2	C2	MATURE Coniferous	SBS dk 01	863 – 885	Middle	5 – 10	East (South)
<b>FUEL TYPE DETERMINATION</b>		<p>TU1: C2 is the fuel type is used for representing mountain pine beetle (MPB) affected stands.</p> <p>TU 2: C2 is the fuel type used, based upon observed fire behaviour, for mid-elevation interior white spruce and hybrid spruce stands throughout the province.</p>					

E. SOIL CHARACTERISTICS							
TU	SOIL TEXTURE	DUFF DEPTH (cm)	COARSE FRAGMENTS (%)	SOIL DISTURBANCE LIMIT (%)	SOIL HAZARD RATING		
					Compaction	Erosion	Displacement
1	SL	3	45 - 55	10	M	M	L
2	SL	3	45 - 55	10	M	M	L

**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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	Riparian features that occur within the Chinook Community Forest Agreement (CFA) tenure area have been managed in accordance with section 6.5.2 of the approved Chinook CFA Forest Stewardship Plan (FSP) 2016 and are otherwise compliant with the requirements of section 47 to 51, 52(2), and 53 of the FPPR.
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**RIPARIAN MANAGEMENT AREAS (RMAs) - FPPR sections 51 and 52**

STREAM, LAKE, WETLAND ID	CLASS	RRZ (m)	RMZ (m)	SPECIFICATIONS FOR RIPARIAN OR LAKESHORE MANAGEMENT AREAS
Lake #1 (Tatalaska Lake)	L1-B	10	0	The proposed harvest area of WRR-4 is greater than 10m from the L1 Lake.

**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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been prescribed in areas that contain, are adjacent to, or are a direct tributary to an identified temperature sensitive stream.
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**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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Road construction activities have not been proposed within the RMA of any identified riparian feature.
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**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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	There are no stream crossings associated with this prescription.
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<b>MAINTAINING STREAM BANK AND CHANNEL STABILITY ON S4, S5, and S6 STREAMS - FPPR section 52 (2)</b>				
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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been prescribed within the RMZ of an S4, S5, or S6 stream that is a direct tributary to an S1, S2, or S3 stream, and therefore the basal area retention requirements for maintaining stream bank and channel stability provided by section 52 of the FPPR do not apply.		
<b>DOMESTIC WATER LICENCES (inside or outside of community watershed) - FPPR section 59</b>				
Does the proposed treatment area contain water sources that are diverted for human consumption by a licensed waterworks?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area does not include water sources that are diverted for human consumption by a licensed waterworks.		
<b>LICENCED WATER WORKS (inside or outside of a community watershed) - FPPR section 60</b>				
Does the proposed treatment include areas that are within 100m of a licensed waterworks?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment and road construction activities have not been proposed within 100 m of a licensed waterworks that is within a community watershed.		
<b>FISHERIES SENSITIVE WATERSHED - GAR section 14, FPPR section 8.1</b>				
Are any activities proposed within a fisheries sensitive watershed?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed within a fisheries sensitive watershed.		
<b>COMMUNITY WATERSHED - GAR section 8, FPPR section 8.2, 61, 62 and 84</b>				
Does the proposed treatment area include areas that are within a community watershed?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed within a community watershed.		
Will this project require road construction or deactivation within a community watershed?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment and road construction activities have not been proposed within a community watershed.		
<b>WATERSHED ASSESSMENT CONSIDERATIONS - FRPA section 180 areas with "significant watershed sensitivity"</b>				
Does the proposed treatment area include areas that have watershed assessment considerations?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed in areas identified as having significant watershed sensitivity or other watershed assessment considerations.		
<b>SOIL DISTURBANCE AND PERMANENT ACCESS STRUCTURES - FPPR sections 35 and 36</b>				
Treatment Unit (TU)  1 / 2	Proposed Max. Allowable Soil Disturbance (5% or 10%)  10%	Proposed Max. Soil Disturbance for Roadside Work Areas  25%	Proposed Max. Permanent Access Structures  5%	Comments  Proposed permanent access structures calculated at 3.6%, and they will be planted once all treatment activities are complete.
Do the proposed Permanent Access Structures exceed 7% of the total area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Permanent access structures will not exceed 7%.		
<b>LANDSLIDES AND TERRAIN STABILITY - FPPR section 37</b>				
Does the proposed treatment area include areas where terrain stability is a concern?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Indicators of slope instability or landslides were not noted within the treatment area.		

<b>SUITABLE SECONDARY STRUCTURE - FPPR section 43.1</b>		
Does the proposed treatment area include a “targeted pine leading stand”?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed in a “targeted pine leading stand” as defined by section 1 of the FPPR. Additionally, the treatment activities proposed will occur entirely within a community forest agreement (CFA) license for the purpose of wildfire risk reduction and therefore, as per section 43.1(4) and 43.1(2) of the FPPR, the secondary stand structure retention specifications set out by section 43.1(1) of the FPPR do not apply.
<b>UNGULATE WINTER RANGE - GAR section 12, FRPA sections 180 and 181, FPPR section 69</b>		
Does the proposed treatment area include areas within an Ungulate Winter Range?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Treatment activities have been proposed in a Special Resource Management Sub-Zone 4 with identified M1 ungulate winter habitat for Moose. Prior to the commencement of treatment activities the Agreement Holder, will ensure that the habitat requirements for the winter survival of ungulate species specified by s.6.4.2 of the FSP are maintained.
<b>WILDLIFE HABITAT AREA - GAR section 10, FRPA sections 180 and 181, FPPR section 69</b>		
Does the proposed treatment area include any wildlife habitat areas (WHA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area does not overlap any mapped or otherwise identified wildlife habitat areas.
<b>MIGRATORY BIRD CONVENTION ACT – 1994</b>		
Does the proposed treatment have the potential to impact migratory bird habitat?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The nest density ranking for this Prescription area is 2 and therefore is not likely to impact Migratory Bird Habitat.
<b>OBJECTIVES SET BY GOVERNMENT FOR WILDLIFE - FPPR section 7</b>		
Does the proposed treatment area include areas to which objectives for wildlife under FPPR section 7 apply?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	A legal order establishing objectives set by government for wildlife has not been enacted in the Lakes district and objectives are not specified in the Lakes LRMP or the Lakes South SRMP. Two notices, enabled under section 7(2) of the FPPR, specifying indicators of the amount, distribution and attributes of wildlife habitat required for the winter survival of ungulate species as well as for the survival of species at risk exist for the Lakes and Nadina districts, respectively.
<b>OBJECTIVES SET BY GOVERNMENT FOR BIODIVERSITY OBJECTIVES (Landscape Level) - FPPR Part 4 Division 5</b>		
Does the proposed treatment area include areas to which objectives for landscape level biodiversity under FPPR section 9 apply?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	The design of the proposed Wildfire Risk Reduction areas will resemble, both spatially and temporally, the patterns of natural disturbance that occur within the landscape.
<b>OBJECTIVES SET BY GOVERNMENT FOR BIODIVERSITY OBJECTIVES (Stand Level) - FPPR Part 4 Division 5</b>		
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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	Four external Wildlife Tree Patch areas amounting to 2.4ha (12.6%) have been identified with this plan.

<b>RECREATION FEATURES - FRPA section 56 and 149, FPPR section 70</b>		
Does the proposed treatment area contain interpretive sites, recreation trails, recreation sites, recreation facilities that are of significant recreation value and are designated a resource feature?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area does not contain known interpretive sites, recreation trails, recreation sites, recreation facilities that are considered to be of significant recreation value and are designated a resource feature.
<b>VISUAL QUALITY OBJECTIVES - GAR section 7, FRPA sections 180 and 181, FPPR section 9.2</b>		
Is the proposed treatment within a scenic area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	WRR-3, 4 and 5 are not within a Scenic area, nor a VQO – Retention polygon.
<b>ARCHAEOLOGICAL RESOURCES/CULTURAL HERITAGE RESOURCES - FPPR section 10</b>		
Are there any known archaeological sites or cultural heritage resources that are important to First Nations within the proposed area?  No Referral to Land Manager is required if proposed TU is on the applicant's own First Nation Land.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	None of these proposed WRR treatment areas overlap with any high archaeological polygons and here are no archaeological site or cultural heritage resources that were identified with the proposed treatment areas. In the event that additional CHR features are identified or otherwise made known during First Nation information sharing and consultation, measures to protect the CHR or address First Nation concerns must be communicated by an addendum to, or an amendment of, this prescription. In the event that previously unidentified CHR features are encountered while carrying out treatment activities, work in the area must stop, and an authorized treatment supervisor must be notified. The Agreement Holder will complete a cultural heritage resource evaluation (CHR) and provide management direction to protect or otherwise manage for the identified feature(s).
<b>INVASIVE PLANTS - FRPA section 47 and FPPR section 17</b>		
Is the introduction and spread of invasive plants likely as a result of the proposed treatment?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Review of the Invasive Alien Plant Program (IAPP) database indicated the presence of invasive plant species adjacent to the FTU along the Keefe's Landing Road. IAPP sites include Orange Hawkweed (OH), Meadow Buttercup (MB), Oxeye Daisy (OD), Scentless Chamomile (SH), Common Tansy (TC), and Yellow Hawkweed (YH).
<b>NATURAL RANGE BARRIERS - FRPA section 48, FPPR section 18</b>		
Are there natural range barriers within the proposed treatment area that are likely to be removed or rendered ineffective?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Fencelines and a cattleguard are already in place adjacent to WRR-3 and WRR-5b (south side of Keefe's Landing Road). In the event that fencelines are damaged, they will be repaired to the pre-damaged condition.
<b>SPECIES AT RISK – FPPA section 7</b>		
Are there species at risk present within the boundaries of the prescribed treatment area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No known occurrences of a species at risk were noted during field assessments or through review of BC Conservation Data Centre spatial data.
<b>LAND USE OBJECTIVES (Higher Level Plans and objectives set by Government under the Land Act)</b>		
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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Prescribed activities are not expected to conflict with other land use objectives not specifically addressed by this prescription.

<b>LAND USE OBJECTIVES</b> (Higher Level Plans and objectives set by Government under the <i>Land Act</i> ) Cont'd		
Do the proposed activities conflict with land use objectives (higher level plans or objectives under the <i>Land Act</i> )?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Prescribed activities are not expected to conflict with other land use objectives not specifically addressed by this prescription.
Known and potential species at risk, windthrow hazard, and old growth management areas (OGMA)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	The treatment activities for WRR-4 overlap 100% into an OGMA established by the Lakes South SRMP. The Agreement Holder has an exemption from the Nadina Resource District to allow for the overlap between OGMA and all Wildfire Risk Reduction proposed areas.
Do the proposed activities conflict with Provincial Priority Deferral Areas (PROV. DEF) identified by the Old Growth Strategic Review?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Proposed harvest area WRR-4 overlaps into the newly designated PROV. DEF by 2% each, and WRR-5 overlaps by 5%. The Agreement Holder has an exemption from the Nadina Resource District to allow for the overlap between the PROV. DEF areas and all Wildfire Risk Reduction proposed areas.

<b>G. OTHER CONSIDERATIONS AND REQUIREMENTS</b>		
<b>CONSULTATION – FIRST NATIONS:</b> Info-share was initiated on April 22, 2022 and Adequacy Letter is called: 10455-50/22 K4R WRR IS1 and is dated July 04, 2022		
<b>FIRST NATION</b>	<b>CONCERNS IDENTIFIED AND MEASURES TO ADDRESS</b>	
Nee Tahi Buhn Band	No concerns brought forward.	
Skin Tyee Nation	No concerns brought forward.	
Stellat'en First Nation	No concerns brought forward.	
Wet'suwet'en First Nation	No concerns brought forward.	
Office of the Wet'sewet'en	No concerns brought forward.	
First Nations consultation complete?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<b>CONSULTATION – GENERAL, EXISTING TENURE HOLDERS</b> (Forest, Range, Guide Outfitters, Trappers): Info-share was initiated for existing Tenure Holders on April 22, 2022.		
<b>Tenure Holder</b>	<b>Concerns?</b>	<b>Measures proposed to address licensee's concerns</b>
Range: George Amendt	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Carl Doglione	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Sharon Robertson	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Ootsa Lake Cattle Company	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Victor Bateson	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Jonathan Solecki	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Jack Burt	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Clint Lambert	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Elizabeth McEntire	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Harold Moroski	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T014	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T017	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T018	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T019	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T020	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Guide Outfitter: James Lancaster	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Guide Outfitter: Brett Hall	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Guide Outfitter: Gary Blackwell	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.

PRIVATE PROPERTY		
Does private property border the proposed treatment area?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	There is private land immediately to the east of WRR-3. This land owner has just finished fire-proofing this property, therefore, this Wildfire Mitigation project will go along tactically with those efforts.
SMOKE MANAGEMENT		
Does a smoke management plan beyond OBSCR exist for the proposed treatment area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area is within a Medium Smoke Sensitivity Zone and therefore the <i>August 2021 Community Wildfire Risk Reduction Open Burning Smoke Control Regulations</i> will be followed for the burning of debris piles.
SAFETY		
Have any specific safety concerns been identified in or adjacent to the proposed treatment area?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	The level of blowdown within these proposed treatment areas are very high. Cattle within this range tenure area are no longer able to use portions of this area as they are completely impassable.
UTILITIES		
Are utilities located in or adjacent to the proposed treatment area? i.e. power lines, gas lines, etc.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	All four of the proposed shapes within this Prescription area are adjacent to Utility Lines.
ACCESS CONTROL		
Are there any foreseen issues with access and access control during and post treatment?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	WRR-4 and WRR-5 are adjacent to an access road to a private residence, which will require access control during the treatment phase to ensure the safety of the residents. There are no foreseen access issues for access to Wildfire Risk Reduction shapes WRR-3 and WRR-5b (south side of Keefe's Landing Road).
TRAFFIC CONTROL		
Is traffic control required at any point during operations?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	There is no need for traffic control on these shapes because timber will be felled into the blocks, and there is a minimum of a tree length previously cleared between the blocks and the Keefe's Landing Road.
OTHER (E.g Public Notification)		
The landowner of private land parcel to the East of WRR-3 must be notified prior to activities commencing and notification to the Community should be posted on Chinook Community Forest's Facebook Page.		

H. STAND AND STOCK TABLE
<p>Is merchantable timber cutting prescribed? If yes, please provide details below.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>About 69.5% percent of the treatment unit contains merchantable timber. The intent of this project is to recover as much fibre as possible from these proposed areas. The appropriate tenure authorization method will be applied for once timber purchase agreements have been arranged.</p>
<p>Are there any challenges to utilizing merchantable material? If yes, please provide details below.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>There is extensive blowdown, dead standing and ladder fuels throughout the Prescription area. Much of the volume that is down on the ground and overlapping has be dead and down for many years now. The hope is that the merchantable stems can be separated out efficiently and effectively from the stems that cannot to aid in a seamless flow of merchantable timber from the Prescription area. The plan would then be for the non-merch material to also potentially be shipped to a biomass facility, or potentially that a grinding unit would arrive on site to process the debris. Alternatively, debris may be left on site for a small period of time so that community members may come and load the material for firewood.</p>

TREATMENT SPECIFICATIONS SUMMARY	
<b>TU 1</b>	<b>TREE REMOVAL/RETENTION STRATEGY BY SIZE/SPECIES</b> (Summarize specifications identified in table above)
1	<i>Silviculture Systems:</i> Clearcut with Reserve (CCRES) <i>Treatment Regimes:</i> Conventional Harvest or Forwarder (HARV), Hazard Tree Removal (HTR), Surface Fuel Reduction (SFR), Mechanical Pile (MPILE) and potential for Burning (PILE BURN)
2	<i>Silviculture Systems:</i> Clearcut with Dispersed Retention (CCDRET) <i>Treatment Regimes:</i> Conventional or Forwarder Harvest (HARV), Hazard Tree Removal (HTR), Surface Fuel Reduction (SFR), Mechanical Pile (MPILE) and potential for Burning (PILE BURN)
<b>TU 1 - TREATMENT SPECIFICATION RATIONALE</b>	
<p>Treatment activities will utilize a Clearcut with Reserve silviculture system which primarily requires the use of mechanical treatment methods. Initial treatment phases will remove remnant hazardous overstory fuels consisting of 118.9 m<sup>3</sup>/ha hybrid spruce and lodgepole pine – approximately 62.4% of this volume is dead potential lodgepole pine. Secondary treatment phases will require surface fuel reductions to the specified targets by means of mainly mechanical methods, (with the potential for manual treatment methods). Final treatment phases will require surface fuel reductions to the specified targets by means of manual/mechanical piling. Treatment activities are expected to transition stands from a C-2 fuel type (Boreal Spruce *with MPB affected stands) to a C-6 (Conifer Plantation) and reduce surface fire intensities significantly.</p> <p>To reduce predicted fire behaviour the following treatment specifications have been applied:</p> <ul style="list-style-type: none"> <li>- Retain all live deciduous trees except where their removal is necessary to address a safety concern.</li> <li>- Remove all live and dead overstory and understory coniferous trees unless the tree is to be retained to achieve biodiversity objectives or the tree has been identified as a wildlife habitat or cultural heritage feature.</li> <li>- Reduce &lt;7.0 cm surface fuel loads to 0.5 kg/m<sup>2</sup> (+/- 0.25 kg/m<sup>2</sup>).</li> <li>- Reduce &gt;7.0 cm surface fuel loads to 2.5 kg/m<sup>2</sup> (+/- 0.5 kg/m<sup>2</sup>).</li> </ul>	
<b>TU 2 - TREATMENT SPECIFICATION RATIONALE</b>	
<p>Treatment activities will utilize a clearcut with Dispersed Retention silviculture system to be carried out using primarily mechanical treatment methods. Initial treatment phases will remove dead or otherwise hazardous overstory trees. The removal of live overstory and understory trees will reduce continuity between fuel strata and accommodate the recovery of treatment fibre and residues. Secondary treatment phases will mechanically (and potential manual methods), thin understory trees to reduce vertical and horizontal continuity to overstory retention. Final treatment phases will require surface fuel reductions to the specified targets by means of manual/mechanical piling. Treatment activities are expected to transition stands from a C-2 fuel type (Boreal Spruce *with MPB affected stands) to a C-6 (Conifer Plantation) and reduce surface fire intensities significantly.</p> <p>To reduce predicted fire behaviour the following treatment specifications apply:</p> <ul style="list-style-type: none"> <li>- Remove all dead overstory and understory trees except where the tree is to be retained to achieve biodiversity objectives or the tree has been identified as a wildlife habitat or cultural heritage feature.</li> <li>- Retain all live deciduous trees except where their removal is necessary to address a safety concern.</li> <li>- Retain 200 sph (±100 sph) of live L1 coniferous trees.</li> <li>- Retain 200 sph (±50 sph) of live L2 coniferous trees.</li> <li>- Recruitment between L1 and L2 conifers stocking is acceptable to a maximum total target conifer stocking of 400 sph (±100 sph).</li> <li>- Thinning from below to a height of 4.5 m is only required on residual coniferous trees where contiguous crown ratio of &gt;50% coverage exists.</li> <li>- Substitution of deciduous stems (where they exist) for coniferous stocking is acceptable.</li> <li>- Remove all L3 and L4 understory trees, (where they exist).</li> <li>- Reduce &lt;7.0 cm surface fuel loads to 0.5 kg/m<sup>2</sup> (+/- 0.25 kg/m<sup>2</sup>).</li> <li>- Reduce &gt;7.0 cm surface fuel loads to 2.5 kg/m<sup>2</sup> (+/- 0.5 kg/m<sup>2</sup>).</li> </ul>	

TU 1: STAND AND STOCK TABLE DATA									
Species and Diameter Class <sup>1</sup>	Crown Base Height Range (m)	Average Tree Height (m)	STEMS PER HECTARE (sph)			VOLUME PER HECTARE (m <sup>3</sup> /ha) <sup>2</sup>			Basal Area (m <sup>2</sup> )
			Existing	Cut	Leave	Existing	Cut	Leave	
<b>Layer 1 (≥ 22.5 cm - 27.5 cm dbh) (Merchantability criteria can also be included here.)</b>									
Pl	-	24	134	134	0	41	41	0	7.0
Sx	3.6	27	123	123	0	78	78	0	10.6
Total Dead Potential			204	204	0	101	101	0	17.6
Total Live			53	53	0	18	18	0	2.3
Total All Species		18.9	257	257	0	119	119	0	19.9
Total Conifers		18.9	257	257	0	119	119	0	19.9
<b>Layer 1 (≥ 17.5cm - 22.5 cm dbh)</b>									
Pl	3.4	17	75	75	0	10	10	0	1.3
Sx	3.1	16	195	195	0	32	32	0	6.8
Bl	2.6	17	123	123	0	22	22	0	4.7
Total Dead Potential			89	89	0	11	11	0	2.3
Total Live			304	304	0	54	54	0	10.5
Total All Species		16	392	392	0	65	65	0	12.8
Total Conifers		16	392	392	0	65	65	0	12.8
<b>Layer 1 (≥ 12.5 cm - 17.5 cm dbh)</b>									
Pl	-	14	133	133	0	7	7	0	2.3
Total Dead Potential			133	133	0	7	7	0	2.3
Total Live			0	0	0	0	0	0	0
Total All Species		14	133	133	0	7	7	0	2.3
Total Conifers		14	133	133	0	7	7	0	2.3
<b>TOTALS: Layer 1</b>									
<b>Total Layer 1 - All Species (Conifers Only)</b>	<b>3.2</b>	<b>23</b>	<b>781</b>	<b>781</b>	<b>0</b>	<b>191</b>	<b>191</b>	<b>0</b>	<b>34.9</b>

TU 1: SURFACE FUEL LOADING (kg/m <sup>2</sup> )					
Size Class (cm)	Existing (kg/m <sup>2</sup> )	Existing Distribution	Target (kg/m <sup>2</sup> )	Target Distribution	Methodology Used
Fine Woody Debris (</=7cm)	0.70	Moderately continuous distribution with accumulations associated with suspended and jackpotted lodgepole pine.	0.5 kg/m <sup>2</sup> (+/- 0.25 kg/m <sup>2</sup> )	Reduce to target levels with an acceptable range of ±0.25 kg/m <sup>2</sup> . Maintain poor continuity between residual pieces and avoid creating aggregations.	Line Intersect Sampling Method
Large Diameter Woody Debris (>7cm – 20cm)	4.80	Continuous distribution of lodgepole pine damaged by mountain pine beetle as well as some hybrid spruce damaged by wind. Pieces typically have a decay class of 2.	2.5 kg/m <sup>2</sup> (+/- 0.5 kg/m <sup>2</sup> )	Reduce below target levels with an acceptable range of ±0.5 kg/m <sup>2</sup> . Ensure poor continuity between retained pieces and avoid creating aggregations.	
Coarse Woody Debris (CWD) (>20cm)	4.86				
<b>Crown Closure (%): 20</b>	<b>Existing Total: 10.36 kg/m<sup>2</sup></b>		<b>Target: 3.0 kg/m<sup>2</sup> (+/- 0.75 kg/m<sup>2</sup>)</b>		

<sup>1</sup> Modify diameter classes as required to suite treatment.

<sup>2</sup> A professional estimate is required for any merchantable cutting

TU 2: STAND AND STOCK TABLE DATA									
Species and Diameter Class <sup>3</sup>	Crown Base Height Range (m)	Average Tree Height (m)	STEMS PER HECTARE (sph)			VOLUME PER HECTARE (m <sup>3</sup> /ha) <sup>4</sup>			Basal Area (m <sup>2</sup> )
			Existing	Cut	Leave	Existing	Cut	Leave	Existing
<b>Layer 1 (≥ 12.5 cm dbh)</b>									
Pl	-	18.3	342	342	0	58	58	0	10.6
Sx	3.6	21.5	318	84	234	110	61	49	6.8
Total Dead Potential			426	426	0	119	119	0	22.1
Total Live			234	0	0	49	0	49	12.8
Total All Species		19.9	660	426	234	168	119	49	34.9
Total Conifers		19.9	660	426	234	168	119	49	34.9
<b>Layer 2 (≥ 7.5cm - 12.5 cm dbh)</b>									
Sx	2.8	11.5	240	0	240	5.2	0	5.2	6.8
Total Dead Potential			0	0	0	0	0	0	0
Total Live			240	0	240	5.2	0	5.2	6.8
Total All Species		11.5	240	0	240	5.2	0	5.2	6.8
Total Conifers		11.5	240	0	240	5.2	0	5.2	6.8
<b>Layer 3 (≥1.3 m ht. - 7.5 cm)</b>									
Sx	1.0	3.6	425	425	0	-	-	-	-
Total Dead Potential			0	0	0	-	-	-	-
Total Live			425	425	0	-	-	-	-
Total All Species		3.6	425	425	0	-	-	-	-
Total Conifers		3.6	425	425	0	-	-	-	-
<b>Layer 4 (&lt; 1.3 m height)</b>									
Sx	0	0.4	310	310	0	-	-	-	-
Total All Species		0.4	310	310	0	-	-	-	-
Total Conifers		0.4	310	310	0	-	-	-	-

TU 2: SURFACE FUEL LOADING (kg/m <sup>2</sup> )					
Size Class (cm)	Existing (kg/m <sup>2</sup> )	Existing Distribution	Target (kg/m <sup>2</sup> )	Target Distribution	Methodology Used
Fine Woody Debris (</=7cm)	0.72	Moderately continuous distribution with accumulations associated with suspended and jackpotted lodgepole pine.	0.5 kg/m <sup>2</sup> (+/- 0.25 kg/m <sup>2</sup> )	Reduce to target levels with an acceptable range of ±0.25 kg/m <sup>2</sup> . Maintain poor continuity between residual pieces and avoid creating aggregations.	Line Intersect Sampling Method
Large Diameter Woody Debris (>7cm – 20cm)	4.16	Moderately continuous distribution of lodgepole pine damaged by mountain pine beetle as well as some hybrid spruce damaged by wind. Pieces typically have a decay class of 2.	2.5 kg/m <sup>2</sup> (+/- 0.5 kg/m <sup>2</sup> )	Reduce below target levels with an acceptable range of ±0.5 kg/m <sup>2</sup> . Ensure poor continuity between retained pieces and avoid creating aggregations.	
Coarse Woody Debris (CWD) (>20cm)	0.3				
<b>Crown Closure (%): 20</b>		<b>Existing Total: 5.18 kg/m<sup>2</sup></b>	<b>Target: 3.0 kg/m<sup>2</sup> (+/- 0.75 kg/m<sup>2</sup>)</b>		

<sup>3</sup> Modify diameter classes as required to suite treatment.

<sup>4</sup> A professional estimate is required for any merchantable cutting

BIODIVERSITY AND FOREST HEALTH CONSIDERATIONS AND TARGETS	
COARSE WOODY DEBRIS (CWD) RETENTION TARGET – Distribution	Using the May 2022 Chief Forester’s Guidance on Coarse Woody Debris Management on Wildfire Mitigation Treatments, the recommendation is to leave 5 CWD pieces per hectare in the SBS dk.
WILDLIFE TREE RETENTION TARGET	Retain up to 10 sph of large diameter (>30 cm dbh) dead potential stems as wildlife snags. Retain one (1) patch (20 x 20 m) of suitable secondary stand structure per hectare for wildlife habitat. Retention patches must be allocated so as to maintain discontinuity to adjacent stands, be anchored around deciduous and dead potential tree retention where practicable, and contain 400-600 sph of healthy poles and/or saplings (where they exist) with good form and vigour. Retain three (3) to five (5) high stumps (>1.0 m) per hectare adjacent to retention patches to ensure they do not incur damage as a result of skidding/yarding activities.
FOREST HEALTH- Should include sections such as agent, affected species, incidence rating, mortality, and targets	Stands have been assessed to be in poor condition due to the impacts of forest health factors. Lodgepole pine overstory trees exhibited high mortality (62.4%) as a result of historical mountain pine beetle infestation. Significant wind damage (40%) has occurred where dead lodgepole pine have succumb to wind and snow loads and have transitioned to the forest floor. Additionally, windthrow contributions from residual stand components are anticipated to increase as stand condition continues to decline and stand density decreases. Evidence of emerging mountain pine beetle infestation was not noted. <b>WINDTHROW RISK EVALUATION</b> Windthrow assessments indicate the proposed treatment activities will result in a moderate potential for future windthrow risk due to topographic location due to prevailing wind directions. Wind damage is common in stands that have been impacted insect occurrences mainly from historical mountain pine beetle infestations.

I. TREATMENT DESCRIPTION
MERCHANTABLE TIMBER CUTTING
ROADS, LANDINGS AND TRAILS: Access to the units will be gained via Keefe’s Landing Road. Proposed access associated with the treatment areas will include two (2) road permits and three (3) on-block spur roads. Both new proposed Road Permit Sections commence off of the Spencha Lake FSR. <b>All additional access structures required to accommodate the prescribed treatment activities, or otherwise necessitated by site conditions or to address a safety concern, must be approved by an authorized treatment supervisor.</b>
FELLING: Felling activities will employ mechanical falling equipment (i.e. feller-bunchers, harvesters). If or where any hand felling activities are used, they must be carried out by Fallers certified to the BC Faller Training Standard (BCFTS) with the skills and experience to achieve the treatment specifications without damaging residual stand components.
YARDING/SKIDDING: Conventional ground-based primary transport equipment (i.e. rubber-tired skidders, forwarders, etc.) will be utilized to carry out skidding/yarding activities. If rubber-tired skidders are utilized, retain high stumps (<1.0 m in height) adjacent to retained trees to prevent retention from incurring damage as a result of yarding and skidding activities.
LOADING AND HAULING: Loading activities will be carried out within the right of way of proposed access structures and any required landings. Hauling activities will be carried out using an appropriate logging truck configuration for the harvest systems employed and processing facility requirements.

**SLASH DISPOSAL:**

Treatment residues and existing downed woody material in excess of prescribed >7.0 cm targets will be brought to road right of ways to facilitate biomass utilization where practicable. Material should be marketed to local processing facilities where a biomass fibre recovery opportunity exists. Where a biomass recovery opportunity does not exist alternative markets/users should be explored, or the material should be piled and burned on site.

The quantity and distribution of biomass resulting from initial mechanical treatment phases will vary with the harvest systems used. Roadside processing may improve biomass recovery opportunities relative to processing at the stump, especially where selection systems have been proposed. Processing at the stump, while improving other objectives, will result in increased dispersed fuel loads and increase the requirement for fire hazard abatement activities.

**STRATEGIES TO IMPROVE BIOMASS UTILIZATION:**

- Aggregate treatment residues, unutilized dead and down material, and bucking waste within utilization requirements for biomass facilities within road right of ways.
- Avoid incorporating mineral soil and other contaminants into piles.

**STAND MODIFICATION TREATMENTS**

**BRUSHING:** Manual brushing treatments have not been prescribed.

**PRUNING:** Pruning treatments have not been prescribed.

**THINNING:** Thinning from below to a height of 4.5 m is only required on residual coniferous trees where contiguous crown ratio of >50% coverage exists.

**DEBRIS PILING:**

Un-utilized biomass – including treatment residues and residual downed woody material – in excess of prescribed surface fuel load reduction targets outside of right of ways will be aggregated into debris piles. Debris piles must be a minimum of ½ the height of the pile’s base width with taller piles being preferred. Surface fuels with a decay class of 4 or 5 do not contribute to surface fuel load calculations and may be retained on site.

**STRATEGIES FOR DEBRIS PILING:**

- Carry out debris piling activities in snow free conditions.
- Construct piles in locations that prevent retention from incurring heat damage and crown scorching during pile burning activities (i.e. within natural openings).
- Ensure piles contain a mix of material sizes and decay classes to facilitate effective ignition and complete combustion.
- Avoid incorporating mineral soil and other non-combustible debris into piles.

**PILE BURNING:**

Burning activities must be carried out in compliance with the Wildfire Act and its Regulation as well as the Environmental Management Act (EMA); namely the Open Burning and Smoke Control Regulation (OBSCR).

The treatment area is within a Medium Smoke Sensitivity Zone (SSZ) as indicated by Smoke Sensitivity Zone map #38 – Nechako River (93F). All open burning activities within the Keefe’s Landing WRR Area are subject to the requirements of section 9, 10, 11, 13, 14, and 15 of OBSCR. However, the FTU falls under a plan for community wildfire risk reduction – the Nadina South Side Wildfire Risk Reduction Tactical Plan – and therefore may be carried out in accordance with section 23 of OBSCR where open burning activities are anticipated to last less than one (1) day, or under the conditions outlined in an approval issued under section 15 of the EMA.

No Private residences or business buildings have been identified <150 m of the treatment area

If pile burning activities will be carried out in a manner that meets the definition of a Category 3 Open Fire, as defined by the Wildfire Regulation, a Burn Registration Number (BRN) will be required. A BRN can be obtained from BCWS by calling 1-888-797-1717 or emailing hpr.1800@gov.bc.ca.

**STRATEGIES FOR PILE BURNING:**

- Ensure all piled debris is dry and seasoned as per the definition provided by the OBSCR.
- Obtain custom venting forecasts to identify optimal burning opportunities.
- Consider the utilization of an Air Curtain Burner.

**MULCHING:** Mulching treatments have not been prescribed.

**MASTICATION:** Mastication treatments have not been prescribed.

**GRINDING:**

In the event that debris can sold to a biomass facility, it is likely that a grinding unit will come directly to the site to prepare the debris into the exact specifications to be shipped via a chip transport truck. If this phase is planned to occur, ensure that road access is maintained to all debris piles locations.

PRESCRIBED FIRE: Prescribe Fire treatments have not been prescribed.
<p>PLANTING: Fire Management Stocking Standards are not provided in the Agreement Holders current approved FSP and therefore an amendment to the Chinook CFA FSP 2016 stocking standards is being proposed. It is recommended that the Wildfire Risk Reduction stocking standard be requested for all Chinook CFA Wildfire Risk Reduction project areas as these standards are in line with the <i>BCWS Fuel Management Prescription Guidance 2022</i>.</p>
OTHER: N/A
<b>AUTHORIZATION AND TIMBER TENURE</b>
<p>FRPA Section 52: The Agreement Holder (CFA:K4R) maintains the timber rights for all merchantable timber harvested as a result of treatment implementation unless relinquished by the CFA holder and authorized by FPRPA Section 52 (1) (b).</p>
Forestry License to Cut (FLTC): Not anticipated.
Park Use Permit: N/A
Road Permit or Road Use Permit: Two new Section for R21201 will be applied for with this Prescription area.
Other (i.e. local government, utilities, etc.): N/A

<b>J. POST TREATMENT</b>
<p>EXPECTED VEGETATION RESPONSE: Treatment activities are anticipated to result in a moderate vegetative response. Increases to shrub and herbaceous cover and the ingress of various grasses is expected throughout the treatment areas. The establishment of coniferous regeneration is expected to be variable, although site disturbance associated with treatment activities has the potential to promote root suckering where trembling aspen stand components exist.</p>
<p>ADDITIONAL TREATMENTS OR MAINTENANCE: Where clearcut systems have been employed, carry out stand monitoring at an interval that aligns with the required silvicultural assessments. The results of silviculture assessments will inform the mid to long term requirement for maintenance.</p>
SILVICULTURE OBLIGATIONS: Do silvicultural obligations apply to the treatment area? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<p>PLANTING: Is planting a treatment identified in this prescription or required as a legislative obligation? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> In SU 1 (both TU 1 and TU 2) an even-aged stocking standard has been applied as is shown in the table below.</p>

STOCKING STANDARDS:													
APPLICABLE EVEN-AGED STOCKING STANDARDS for all variations of Clearcut Silviculture Systems:													
TU	SU	Stocking Standard ID	Species (Pref.)	Species (Accep.)	Well-Spaced Stem/ha				Minimum Height (m)			Regen Delay	Free Growing (years)
					TSS	MSS		MITD	PI	Others	RTH (%)		
						Pref. & Acc.	Pref.						
1 / 2	1	TBD	PLI SX FDI LW AT EP AC	-	1200	700	600	2.0	2.0	1.0	-	4	20

K. Outstanding Works	
1.)	Obtain the appropriate authorizations for the FRPA Section 52(1)(b) and for the new sections required to R21201 road permit.
2.)	Obtain District Manager approval for the proposed alternative stocking standards, or upon the approval of the Chinook CFA:K4R FSP adopt the applicable fire management stocking standards if appropriate.
3.)	If required, obtain the appropriate approval(s) – under section 15 of the EMA – to exempt pile burning activities from the requirements of sections 9, 10, 11, 13, 14 and 15 and Part 3 of OBSCR.
4.)	Obtain the appropriate authorizations or exemptions for those portions of the treatment area that are within a Priority Deferral Area identified by the Old Growth Strategic Review and the Old Growth Technical Advisory Panel.

L. ADMINISTRATION	
<b>PREPARATION</b>	
FOREST PROFESSIONAL NAME ( <i>Printed</i> ): Jennifer Hill, RPF	FOREST PROFESSIONAL SIGNATURE: 
MEMBER NUMBER: 3889	DATE: 2023-01-28
<b>M. ATTACHMENTS</b>	
MAPS: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	FIELD DATA CARDS: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
WUI WTA Plots and Photos: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	CRUISE DATA: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
AIR PHOTOS/IMAGERY: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	BURN PLAN: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
MODELING/DATA ANALYSIS: Yes <input type="checkbox"/> No <input type="checkbox"/>	OTHER: Migratory Bird Nest Ranking Spreadsheet Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> OTHER: WTA Worksheets Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
SURFACE FUEL LOADING DATA: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
TERRAIN STABILITY ASSESSMENT Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Completed By: Date:	VISUAL IMPACT ASSESSMENT Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Completed By: Date:
ARCHAEOLOGY IMPACT ASSESSMENT Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Completed By: Date:	BIOLOGIST ASSESSMENT Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Completed By: Date:
ADDITIONAL COMMENTS: MAPS: The following maps have been provided to support the prescribed activities: <ul style="list-style-type: none"> <li>• Prescription Map</li> <li>• Ortho Treatment Map</li> <li>• Location Map</li> </ul>	

## K4R / FESBC Wildfire Risk Reduction Prescription Map #2

Nadina Natural Resource District  
 Northwest Fire Centre- Nadina Zone  
 FMTU-Keefe's Landing Rd  
 CFA-K4R  
 93F.091  
 Field Work By: Jennifer Hill  
 Map Produced By: Loretta Johnson  
 Date: November 29, 2022

Block	WTRA	TU-1	TU-2	GROSS Ha
WWR-3	0.9	3.2	0.8	4.9
WRR-4	0.0	5.2	2.7	7.9
WWR-5	1.5	2.7	2.0	6.2
<b>Totals</b>	<b>2.4</b>	<b>11.1</b>	<b>5.5</b>	<b>19.0</b>

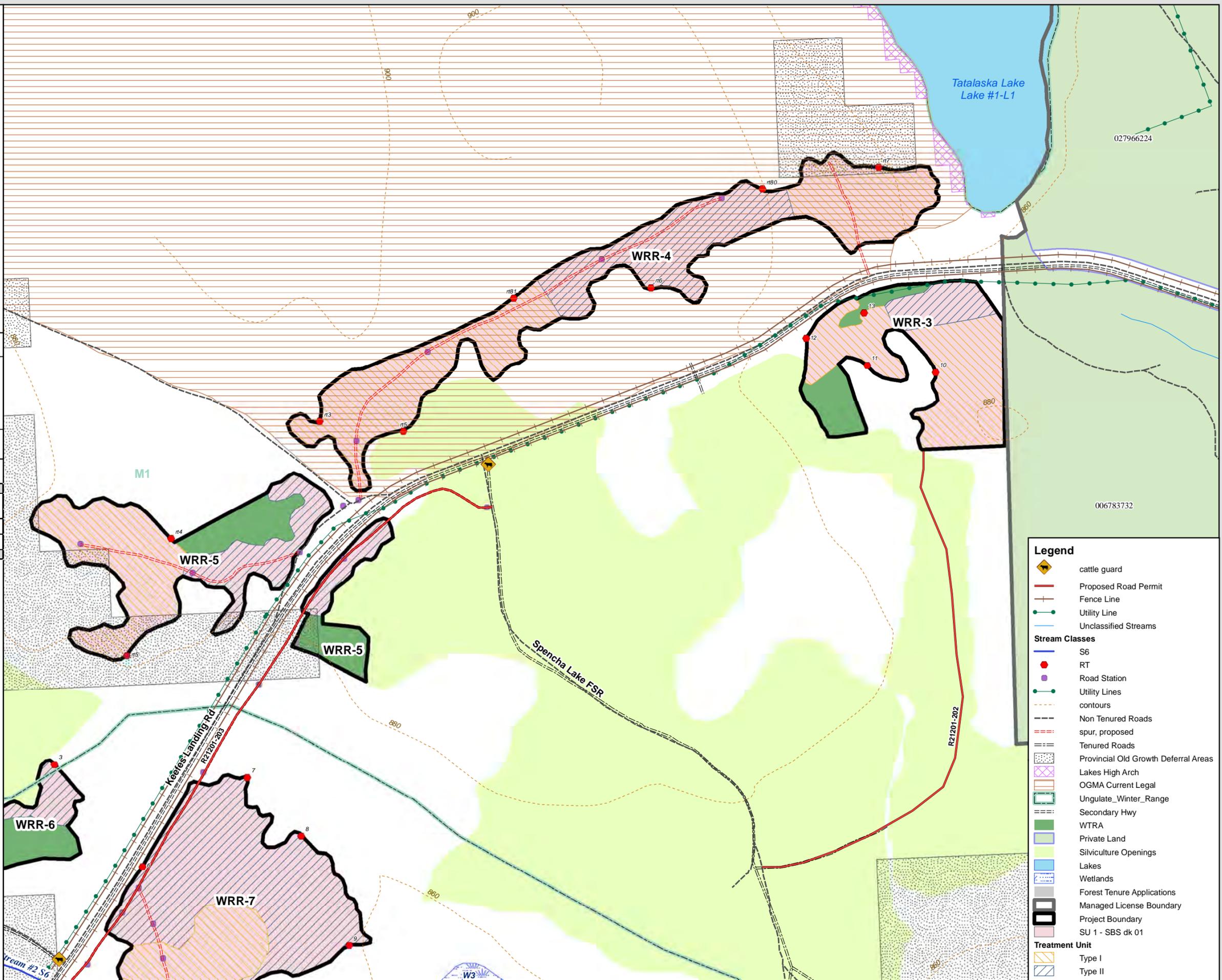
TREATMENT UNIT (TU) SUMMARY							
TU	SU	NET AREA (ha)	GROSS AREA (ha)	LEAVE AREAS (ha)	NP (ha)	NAR (ha)	TREATMENT REGIME
1	1	11.1	12.0	0.9	0	11.1	CCRES / HARV / SFR / Mechanical Debris Pile & Burn
2	1	5.5	7.0	1.5	0	5.5	CCDRET / HARV / SFR / Mechanical Debris Pile & Burn
<b>TOTALS</b>		<b>16.6</b>	<b>19.0</b>	<b>2.4</b>	<b>0</b>	<b>16.6</b>	



0 25 50 100 150 200 Meters

1:5,000

Free Growing Forestry Ltd. **Free Growing Forestry Ltd.**  
 PO Box 510, 135 1st Ave, Burns Lake, BC V0J 1E0  
 Phone (250) 692-3443 Fax (250) 692-3464  
 Email: loretta.johnson@freegrowing.ca



**Legend**

- cattle guard
- Proposed Road Permit
- Fence Line
- Utility Line
- Unclassified Streams

**Stream Classes**

- S6
- RT
- Road Station
- Utility Lines
- contours
- Non Tenured Roads
- spur, proposed
- Tenured Roads
- Provincial Old Growth Deferral Areas
- Lakes High Arch
- OGMA Current Legal
- Ungulate\_Winter\_Range
- Secondary Hwy
- WTRA
- Private Land
- Silviculture Openings
- Lakes
- Wetlands
- Forest Tenure Applications
- Managed License Boundary
- Project Boundary
- SU 1 - SBS dk 01

**Treatment Unit**

- Type I
- Type II

**Rx 2 – Ground Fuel Photo:**



**Rx 2 – Ladder Fuels Photo:**



**Rx 2 – Crown Photo:**



<b>A. PROJECT IDENTIFICATION</b>	
<b>PROJECT ID AND UNIT ID:</b> <b>K4R/FESBC Wildfire Risk Reduction – Prescription #3</b> 2.3 km to 3.7 km Keefe’s Landing Road Original WRR Shapes #6, 7, 8	<b>LAND OR TENURE HOLDER:</b> Chinook Community Forest Tenure K4R (CFA:K4R)
<b>LATITUDE/LONGITUDE:</b> 53° 54’ 39” N, 125° 55’ 16” W	<b>GEOGRAPHIC DESCRIPTION:</b> Keefe’s Landing Road, 2.3km to 3.7km
<b>HIGHER-LEVEL PLAN(s):</b> Lakes District Land and Resource Management Plan – 2000 Lakes South Sustainable Resource Management Plan – 2003	<b>MAP REFERENCE NUMBER:</b> 93F 091

<b>B. FUEL TREATMENT PROJECT DESCRIPTION</b>			
<b>OBJECTIVE:</b>	<input checked="" type="checkbox"/> Public Safety	<input checked="" type="checkbox"/> Range Improvement	<input checked="" type="checkbox"/> Ecosystem Restoration
	<input type="checkbox"/> Recreation	<input type="checkbox"/> Wildlife Habitat	<input type="checkbox"/> Other:
<p>Prescription Area #3: Keefe’s Landing Road Wildfire Risk Reduction (WRR) area is on the south side of François Lake and is bordered by Crown land. This unit is entirely within the Chinook Community Forest (CFA:K4R) tenure area and has been identified as a high priority corridor by the British Columbia Wildfire Service (BCWS) WRR Tactical Plan.</p> <p>The unit is within the François Lake Wildland Urban Interface (WUI) Risk Class (RC) polygon which has been assigned a risk class rating of 2 due to the prevalence of High Value Resources and Assets (HVRAs) namely the infrastructure and community values along the Keefe’s Landing Road. The Provincial Strategic Threat Analysis (PSTA) has classified stands within the unit as having a Final Threat Rating (FTR) of high (7) to extreme (9). This rating considers the anticipated head fire intensities and spotting impacts for the fuel types present as well as historical fire densities. Initial spread index (ISI) roses generated by the Grassy Plains Hub (161) fire weather station indicate that prevailing winds during the core fire season are typically from the southwest.</p> <p>The objectives of this Prescription are to:</p> <ul style="list-style-type: none"> <li>• reduce the risk of wildfire to public safety by modifying forest fuels within wildland urban interface (WUI) areas – specifically the properties, residences, and infrastructure near the Keefe’s Landing Road.</li> <li>• reduce the risk of wildfire to public safety by modifying fuels adjacent to critical evacuation corridors – specifically those along the Keefe’s Landing Road network.</li> <li>• reduce the risk of wildfire to critical infrastructure and property by modifying forest fuels adjacent to, or likely to influence forest fuels adjacent to, identified values at risk.</li> <li>• develop ecologically appropriate and effective wildfire risk reduction solutions that give due regard to overlapping land management objectives and tenure obligations.</li> <li>• develop ecologically appropriate and effective wildfire risk reduction solutions that give due regard to site and stand conditions to maintain forest health and site productivity.</li> <li>• create defensible space for wildland fire fighters to anchor suppression strategies and tactics from during incident response by removing or modifying hazardous forest fuels in a way that improves firefighter safety and reduces fire behaviour potential.</li> </ul>			

STRATEGIES:	<p>Wildfire risk reduction objectives will be achieved through the application of treatment regimes designed to address site and stand specific conditions. Treatments will reduce fire behaviour potential through the modification or removal of hazardous forest fuels as well as through reductions to surface fuel load contributions from downed woody material and treatment residues. Stand modifications are intended to reduce fire intensities and reduce continuity between forest fuels, and therefore reduce the potential for the propagation and persistence of crown fire as well as the potential for spotting. Treatment intensities increase with the level of hazard identified as well as in response to anticipated operational limitations. The prescribed treatment activities balance WRR objectives with established land use objectives and existing tenure obligations to reduce the risk of wildfire to public safety, promote natural processes and maintain ecosystem function, as well as to reduce open burning requirements through the utilization of biomass.</p>
METHODS:	<p>The proposed operational treatment for this TU 1 of this Prescription area will be a Clearcut with Reserves (CCRES) Silviculture System and TU 2 will be a Clearcut with Dispersed Retention (CCDRET) Silviculture System as both TU's requires significant stand modification to address the hazardous stand conditions. Stand conditions are poor in these areas due to the impacts of historical insect infestations and subsequent wind events. The prescription area will provide moderate to marginal commercial fibre recovery opportunities. Initial stand entries require an overstory removal phase utilizing conventional ground-based harvest (HARV) methods. Final treatment phases require surface fuel load reductions (SFR) to dead and down material and treatment residues by mechanical surface fuel reductions to existing downed woody materials and treatment residues to ensure surface fuel load targets are achieved. Surface fuel reduction targets are intended to reduce surface fire intensities to a level below critical surface fire intensity thresholds (&lt;2000 kW/m) under 90th percentile fire weather conditions as well as to comply with provincial fuel hazard abatement requirements. Prescription area design and specifications have been developed with consideration of the influence of topography. However, fine adjustments to initial spread indexes (ISI) to account for the influence of slope have not been incorporated into treatment specifications.</p>

C. TREATMENT UNIT (TU) SUMMARY							
TU	SU	NET AREA (ha)	GROSS AREA (ha)	LEAVE AREAS (ha)	NP (ha)	NAR (ha)	TREATMENT REGIME (i.e. PRUNE THIN, PILE BURN, BROAD, CHAUL, ETC.)
1	1	9.1	9.5	0.4	0	9.1	CCRES / HARV / SFR / Mechanical Debris Pile & Burn
2	1	11.6	14.4	2.8	0	11.6	CCDRET / HARV / SFR / Mechanical Debris Pile & Burn
TOTALS		20.7	23.9	3.2	0	20.7	

D. SITE CHARACTERISTICS							
TU	CFFBPS FUEL TYPE	TIMBER TYPE	BGC SUBZONE, VARIANT & SITE ASSOC.	ELEVATION RANGE (m)	SLOPE POSITION	SLOPE RANGE (%)	ASPECT
1	C2	MATURE Coniferous	SBS dk 01	862 – 885	Middle	3 – 10	Southeast
2	C2	MATURE Coniferous	SBS dk 01	858 – 870	Middle	3 – 10	Southeast
FUEL TYPE DETERMINATION		<p>TU1: C2 is the fuel type is used for representing mountain pine beetle (MPB) affected stands.</p> <p>TU 2: C2 is the fuel type used, based upon observed fire behaviour, for mid-elevation interior white spruce and hybrid spruce stands throughout the province.</p>					

E. SOIL CHARACTERISTICS							
TU	SOIL TEXTURE	DUFF DEPTH (cm)	COARSE FRAGMENTS (%)	SOIL DISTURBANCE LIMIT (%)	SOIL HAZARD RATING		
					Compaction	Erosion	Displacement
1	SL	3	45 - 55	10	M	M	L
2	SL	3	45 - 55	10	M	M	L

**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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	Riparian features that occur within the Chinook Community Forest Agreement (CFA) tenure area have been managed in accordance with section 6.5.2 of the approved Chinook CFA Forest Stewardship Plan (FSP) 2016 and are otherwise compliant with the requirements of section 47 to 51, 52(2), and 53 of the FPPR.
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**RIPARIAN MANAGEMENT AREAS (RMAs) - FPPR sections 51 and 52**

STREAM, LAKE, WETLAND ID	CLASS	RRZ (m)	RMZ (m)	SPECIFICATIONS FOR RIPARIAN OR LAKESHORE MANAGEMENT AREAS
Stream #2	S6	0	20	The proposed harvest area of WRR-7 is at least 20m from Stream #2.
Stream #3, R1	NCD	0	0	The proposed harvest area of WRR-9 is greater than 5m from Stream #3, R1.
Stream #3, R2	S6	0	20	The proposed harvest area of WRR-8 is greater than 20m from Stream #2, R2.
Wetland #4	W3	0	30	The proposed harvest area of WRR-8 is greater than 30m from Wetland #4.

**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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been prescribed in areas that contain, are adjacent to, or are a direct tributary to an identified temperature sensitive stream.
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**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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Road construction activities have not been proposed within the RMA of any identified riparian feature.
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**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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	There will be one crossing associated with this prescription, where Steam #2 (S6) crosses proposed Road Permit R21201-202.
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<b>MAINTAINING STREAM BANK AND CHANNEL STABILITY ON S4, S5, and S6 STREAMS - FPPR section 52 (2)</b>				
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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been prescribed within the RMZ of an S4, S5, or S6 stream that is a direct tributary to an S1, S2, or S3 stream, and therefore the basal area retention requirements for maintaining stream bank and channel stability provided by section 52 of the FPPR do not apply.		
<b>DOMESTIC WATER LICENCES (inside or outside of community watershed) - FPPR section 59</b>				
Does the proposed treatment area contain water sources that are diverted for human consumption by a licensed waterworks?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area does not include water sources that are diverted for human consumption by a licensed waterworks.		
<b>LICENCED WATER WORKS (inside or outside of a community watershed) - FPPR section 60</b>				
Does the proposed treatment include areas that are within 100m of a licensed waterworks?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment and road construction activities have not been proposed within 100 m of a licensed waterworks that is within a community watershed.		
<b>FISHERIES SENSITIVE WATERSHED - GAR section 14, FPPR section 8.1</b>				
Are any activities proposed within a fisheries sensitive watershed?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed within a fisheries sensitive watershed.		
<b>COMMUNITY WATERSHED - GAR section 8, FPPR section 8.2, 61, 62 and 84</b>				
Does the proposed treatment area include areas that are within a community watershed?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed within a community watershed.		
Will this project require road construction or deactivation within a community watershed?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment and road construction activities have not been proposed within a community watershed.		
<b>WATERSHED ASSESSMENT CONSIDERATIONS - FRPA section 180 areas with "significant watershed sensitivity"</b>				
Does the proposed treatment area include areas that have watershed assessment considerations?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed in areas identified as having significant watershed sensitivity or other watershed assessment considerations.		
<b>SOIL DISTURBANCE AND PERMANENT ACCESS STRUCTURES - FPPR sections 35 and 36</b>				
Treatment Unit (TU)  1 / 2	Proposed Max. Allowable Soil Disturbance (5% or 10%)  10%	Proposed Max. Soil Disturbance for Roadside Work Areas  25%	Proposed Max. Permanent Access Structures  5%	Comments  Proposed permanent access structures calculated at 2.4%, and they will be planted once all treatment activities are complete.
Do the proposed Permanent Access Structures exceed 7% of the total area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Permanent access structures will not exceed 7%.		
<b>LANDSLIDES AND TERRAIN STABILITY - FPPR section 37</b>				
Does the proposed treatment area include areas where terrain stability is a concern?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Indicators of slope instability or landslides were not noted within the treatment area.		

<b>SUITABLE SECONDARY STRUCTURE - FPPR section 43.1</b>		
Does the proposed treatment area include a “targeted pine leading stand”?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed in a “targeted pine leading stand” as defined by section 1 of the FPPR. Additionally, the treatment activities proposed will occur entirely within a community forest agreement (CFA) license for the purpose of wildfire risk reduction and therefore, as per section 43.1(4) and 43.1(2) of the FPPR, the secondary stand structure retention specifications set out by section 43.1(1) of the FPPR do not apply.
<b>UNGULATE WINTER RANGE - GAR section 12, FRPA sections 180 and 181, FPPR section 69</b>		
Does the proposed treatment area include areas within an Ungulate Winter Range?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Treatment activities have been proposed in a Special Resource Management Sub-Zone 4 with identified M1 and M2 ungulate winter habitat for Moose, 40% M1 coverage of WRR-6 and 100% M2 coverage for WRR-9. Prior to the commencement of treatment activities the Agreement Holder will ensure that the habitat requirements for the winter survival of ungulate species specified by s.6.4.2 of the FSP are maintained.
<b>WILDLIFE HABITAT AREA - GAR section 10, FRPA sections 180 and 181, FPPR section 69</b>		
Does the proposed treatment area include any wildlife habitat areas (WHA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area does not overlap any mapped or otherwise identified wildlife habitat areas.
<b>MIGRATORY BIRD CONVENTION ACT – 1994</b>		
Does the proposed treatment have the potential to impact migratory bird habitat?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The nest density ranking for this Prescription area is 2 and therefore is not likely to impact Migratory Bird Habitat.
<b>OBJECTIVES SET BY GOVERNMENT FOR WILDLIFE - FPPR section 7</b>		
Does the proposed treatment area include areas to which objectives for wildlife under FPPR section 7 apply?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	A legal order establishing objectives set by government for wildlife has not been enacted in the Lakes district and objectives are not specified in the Lakes LRMP or the Lakes South SRMP. Two notices, enabled under section 7(2) of the FPPR, specifying indicators of the amount, distribution and attributes of wildlife habitat required for the winter survival of ungulate species as well as for the survival of species at risk exist for the Lakes and Nadina districts, respectively.
<b>OBJECTIVES SET BY GOVERNMENT FOR BIODIVERSITY OBJECTIVES (Landscape Level) - FPPR Part 4 Division 5</b>		
Does the proposed treatment area include areas to which objectives for landscape level biodiversity under FPPR section 9 apply?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	The design of the proposed Wildfire Risk Reduction areas will resemble, both spatially and temporally, the patterns of natural disturbance that occur within the landscape.
<b>OBJECTIVES SET BY GOVERNMENT FOR BIODIVERSITY OBJECTIVES (Stand Level) - FPPR Part 4 Division 5</b>		
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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	Five external Wildlife Tree Patch areas amounting to 3.2ha (13.4%) have been identified with this plan.

<b>RECREATION FEATURES - FRPA section 56 and 149, FPPR section 70</b>		
Does the proposed treatment area contain interpretive sites, recreation trails, recreation sites, recreation facilities that are of significant recreation value and are designated a resource feature?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area does not contain known interpretive sites, recreation trails, recreation sites, recreation facilities that are considered to be of significant recreation value and are designated a resource feature.
<b>VISUAL QUALITY OBJECTIVES - GAR section 7, FRPA sections 180 and 181, FPPR section 9.2</b>		
Is the proposed treatment within a scenic area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Proposed WRR blocks are not within a Scenic area nor a VQO – Retention polygon.
<b>ARCHAEOLOGICAL RESOURCES/CULTURAL HERITAGE RESOURCES - FPPR section 10</b>		
Are there any known archaeological sites or cultural heritage resources that are important to First Nations within the proposed area?  No Referral to Land Manager is required if proposed TU is on the applicant’s own First Nation Land.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	These proposed WRR blocks do not overlap with any CHR High Archaeological polygons nor were any archaeological sites or cultural heritage resources (CHR) identified with the proposed treatment areas. In the event that additional CHR features are identified or otherwise made known during First Nation information sharing and consultation, measures to protect the CHR or address First Nation concerns must be communicated by an addendum to, or an amendment of this prescription. In the event that previously unidentified CHR features are encountered while carrying out treatment activities, work in the area must stop, and an authorized treatment supervisor must be notified. The Agreement Holder will complete a cultural heritage resource evaluation (CHR) and provide management direction to protect or otherwise manage for the identified feature(s).
<b>INVASIVE PLANTS - FRPA section 47 and FPPR section 17</b>		
Is the introduction and spread of invasive plants likely as a result of the proposed treatment?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Review of the Invasive Alien Plant Program (IAPP) database indicated the presence of invasive plant species adjacent to the FTU along the Keefe’s Landing Road. IAPP sites include Orange Hawkweed (OH), Meadow Buttercup (MB), Oxeye Daisy (OD), Scentless Chamomile (SH), Common Tansy (TC), and Yellow Hawkweed (YH).
<b>NATURAL RANGE BARRIERS - FRPA section 48, FPPR section 18</b>		
Are there natural range barriers within the proposed treatment area that are likely to be removed or rendered ineffective?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Fencelines and two cattleguards are already on the existing access into WRR-6 and WRR-8 (North side of Keefe’s Landing Road). In the event that fencelines or cattleguards are damaged, they will be repaired to the pre-damaged condition.
<b>SPECIES AT RISK – FPPA section 7</b>		
Are there species at risk present within the boundaries of the prescribed treatment area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No known occurrences of a species at risk were noted during field assessments or through review of BC Conservation Data Centre spatial data.
<b>LAND USE OBJECTIVES (Higher Level Plans and objectives set by Government under the <i>Land Act</i>)</b>		
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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Prescribed activities are not expected to conflict with other land use objectives not specifically addressed by this prescription.

<b>LAND USE OBJECTIVES</b> (Higher Level Plans and objectives set by Government under the <i>Land Act</i> ) Cont'd		
Do the proposed activities conflict with land use objectives (higher level plans or objectives under the <i>Land Act</i> )?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Prescribed activities are not expected to conflict with other land use objectives not specifically addressed by this prescription.
Known and potential species at risk, windthrow hazard, and old growth management areas?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed in an old growth management area (OGMA) established by the Lakes South SRMP.
Do the proposed activities conflict with Provincial Priority Deferral Areas (PROV. DEF) identified by the Old Growth Strategic Review?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Proposed harvest area WRR-7 overlaps into the newly designated PROV. DEF by 10%, and WRR-8 overlaps by 40%. The Agreement Holder has an exemption from the Nadina Resource District to allow for the overlap between the PROV. DEF areas and all Wildfire Risk Reduction proposed areas.

**G. OTHER CONSIDERATIONS AND REQUIREMENTS**

**CONSULTATION – FIRST NATIONS:** Info-share was initiated on April 22, 2022 and Adequacy Letter is called: 10455-50/22 K4R WRR IS1 and is dated July 04, 2022

FIRST NATION	CONCERNS IDENTIFIED AND MEASURES TO ADDRESS
Nee Tahi Buhn Band	No concerns brought forward.
Skin Tyee Nation	No concerns brought forward.
Stellat'en First Nation	No concerns brought forward.
Wet'suwet'en First Nation	No concerns brought forward.
Office of the Wet'sewet'en	No concerns brought forward.
First Nations consultation complete?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

**CONSULTATION – GENERAL, EXISTING TENURE HOLDERS** (Forest, Range, Guide Outfitters, Trappers): Info-share was initiated for existing Tenure Holders on April 22, 2022.

Tenure Holder	Concerns?	Measures proposed to address licensee's concerns
Range: George Amendt	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Carl Doglione	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Sharon Robertson	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Ootsa Lake Cattle Company	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Victor Bateson	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Jonathan Solecki	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Jack Burt	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Clint Lambert	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Elizabeth McEntire	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Harold Moroski	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T014	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T017	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T018	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T019	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T020	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Guide Outfitter: James Lancaster	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Guide Outfitter: Brett Hall	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Guide Outfitter: Gary Blackwell	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.

PRIVATE PROPERTY		
Does private property border the proposed treatment area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	There is no private land immediately adjacent to any of these proposed WRR shapes.
SMOKE MANAGEMENT		
Does a smoke management plan beyond OBSCR exist for the proposed treatment area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area is within a Medium Smoke Sensitivity Zone and therefore the <i>August 2021 Community Wildfire Risk Reduction Open Burning Smoke Control Regulations</i> will be followed for the burning of debris piles.
SAFETY		
Have any specific safety concerns been identified in or adjacent to the proposed treatment area?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	The level of blowdown within these proposed treatment areas are very high. Cattle within this range tenure area are no longer able to use portions of this area as they are completely impassable.
UTILITIES		
Are utilities located in or adjacent to the proposed treatment area? i.e. power lines, gas lines, etc.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	All six of the proposed shapes within this Prescription area are adjacent to Utility Lines.
ACCESS CONTROL		
Are there any foreseen issues with access and access control during and post treatment?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	There are no foreseen access issues for access to any of the proposed Wildfire Risk Reduction shapes in this Prescription.
TRAFFIC CONTROL		
Is traffic control required at any point during operations?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	There is no need for traffic control on these shapes because timber will be felled into the blocks, and there is a minimum of a tree length previously cleared between the blocks and the Keefe's Landing Road.
OTHER (E.g Public Notification)		
Notification of commencement of harvesting activities should be posted on Chinook Community Forest's Facebook Page.		

H. STAND AND STOCK TABLE
<p>Is merchantable timber cutting prescribed? If yes, please provide details below.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>About 75.9% percent of the treatment unit contains merchantable timber. The intent of this project is to recover as much fibre as possible from these proposed areas. The appropriate tenure authorization method will be applied for once timber purchase agreements have been arranged.</p>
<p>Are there any challenges to utilizing merchantable material? If yes, please provide details below.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>There is extensive blowdown, dead standing and ladder fuels throughout the Prescription area. Much of the volume that is down on the ground and overlapping has been dead and down for many years now. The hope is that the merchantable stems can be separated out efficiently and effectively from the stems that cannot to aid in a seamless flow of merchantable timber from the Prescription area. The plan would then be for the non-merch material to also potentially be shipped to a biomass facility, or potentially that a grinding unit would arrive on site to process the debris. Alternatively, debris may be left on site for a small period of time so that community members may come and load the material for firewood.</p>

TREATMENT SPECIFICATIONS SUMMARY	
TU 1	TREE REMOVAL/RETENTION STRATEGY BY SIZE/SPECIES (Summarize specifications identified in table above)
1	<p><b>Silviculture Systems:</b> Clearcut with Reserve (CCRES)</p> <p><b>Treatment Regimes:</b> Conventional Harvest or Forwarder (HARV), Hazard Tree Removal (HTR), Surface Fuel Reduction (SFR), Mechanical Pile (MPILE) and potential for Burning (PILE BURN)</p>
2	<p><b>Silviculture Systems:</b> Clearcut with Dispersed Retention (CCDRET)</p> <p><b>Treatment Regimes:</b> Conventional or Forwarder Harvest (HARV), Hazard Tree Removal (HTR), Surface Fuel Reduction (SFR), Mechanical Pile (MPILE) and potential for Burning (PILE BURN)</p>
TU 1 - TREATMENT SPECIFICATION RATIONALE	
<p>Treatment activities will utilize a Clearcut with Reserve silviculture system which primarily requires the use of mechanical treatment methods. Initial treatment phases will remove remnant hazardous overstory fuels consisting of 76.7 m<sup>3</sup>/ha hybrid spruce and lodgepole pine – approximately 43.9% of this volume is dead potential lodgepole pine. Secondary treatment phases will require surface fuel reductions to the specified targets by means of mainly mechanical methods, (with the potential for manual treatment methods). Final treatment phases will require surface fuel reductions to the specified targets by means of manual/mechanical piling. Treatment activities are expected to transition stands from a C-2 fuel type (Boreal Spruce *with MPB affected stands) to a C-6 (Conifer Plantation) and reduce surface fire intensities significantly.</p> <p>To reduce predicted fire behaviour the following treatment specifications have been applied:</p> <ul style="list-style-type: none"> <li>- Retain all live deciduous trees except where their removal is necessary to address a safety concern.</li> <li>- Remove all live and dead overstory and understory coniferous trees unless the tree is to be retained to achieve biodiversity objectives or the tree has been identified as a wildlife habitat or cultural heritage feature.</li> <li>- Reduce &lt;7.0 cm surface fuel loads to 0.5 kg/m<sup>2</sup> (+/- 0.25 kg/m<sup>2</sup>).</li> <li>- Reduce &gt;7.0 cm surface fuel loads to 2.5 kg/m<sup>2</sup> (+/- 0.5 kg/m<sup>2</sup>).</li> </ul>	
TU 2 - TREATMENT SPECIFICATION RATIONALE	
<p>Treatment activities will utilize a clearcut with Dispersed Retention silviculture system to be carried out using primarily mechanical treatment methods. Initial treatment phases will remove dead or otherwise hazardous overstory trees. The removal of live overstory and understory trees will reduce continuity between fuel strata and accommodate the recovery of treatment fibre and residues. Secondary treatment phases will mechanically (and potential manual methods), thin understory trees to reduce vertical and horizontal continuity to overstory retention. Final treatment phases will require surface fuel reductions to the specified targets by means of manual/mechanical piling. Treatment activities are expected to transition stands from a C-2 fuel type (Boreal Spruce *with MPB affected stands) to a C-6 (Conifer Plantation) and reduce surface fire intensities significantly.</p> <p>To reduce predicted fire behaviour the following treatment specifications apply:</p> <ul style="list-style-type: none"> <li>- Remove all dead overstory and understory trees except where the tree is to be retained to achieve biodiversity objectives or the tree has been identified as a wildlife habitat or cultural heritage feature.</li> <li>- Retain all live deciduous trees except where their removal is necessary to address a safety concern.</li> <li>- Retain 200-400 sph (±100 sph) of live L1 coniferous trees.</li> <li>- Retain 200 sph (±50 sph) of live L2 coniferous trees.</li> <li>- Recruitment between L1 and L2 conifers stocking is acceptable to a maximum total target conifer stocking of 600 sph (±100 sph).</li> <li>- Thinning from below to a height of 4.5 m is only required on residual coniferous trees where contiguous crown ratio of &gt;50% coverage exists.</li> <li>- Substitution of deciduous stems (where they exist) for coniferous stocking is acceptable.</li> <li>- Remove all L3 and L4 understory trees, (where they exist).</li> <li>- Reduce &lt;7.0 cm surface fuel loads to 0.5 kg/m<sup>2</sup> (+/- 0.25 kg/m<sup>2</sup>).</li> <li>- Reduce &gt;7.0 cm surface fuel loads to 2.5 kg/m<sup>2</sup> (+/- 0.5 kg/m<sup>2</sup>).</li> </ul>	

TU 1: STAND AND STOCK TABLE DATA									
Species and Diameter Class <sup>1</sup>	Crown Base Height Range (m)	Average Tree Height (m)	STEMS PER HECTARE (sph)			VOLUME PER HECTARE (m <sup>3</sup> /ha) <sup>2</sup>			Basal Area (m <sup>2</sup> )
			Existing	Cut	Leave	Existing	Cut	Leave	Existing
<b>Layer 1 (≥ 22.5 cm - 27.5 cm dbh) (Merchantability criteria can also be included here.)</b>									
Pl	-	22	124	124	0	37.1	37.1	0	6.6
Sx	3.6	25	160	160	0	57.5	57.5	0	8.0
Total Dead Potential			150	150	0	48.1	48.1	0	8.1
Total Live			134	134	0	46.5	46.5	0	6.4
Total All Species		23	284	284	0	94.6	94.6	0	14.6
Total Conifers		23	284	284	0	94.6	94.6	0	14.6
<b>Layer 1 (≥ 17.5cm - 22.5 cm dbh)</b>									
Pl	3.4	17	269	269	0	47.4	47.4	0	8.5
Sx	3.1	16	165	165	0	27.8	27.8	0	5.5
Total Dead Potential			155	155	0	23.8	23.8	0	4.6
Total Live			279	279	0	51.4	51.4	0	9.4
Total All Species		16	434	434	0	75.2	75.2	0	14.0
Total Conifers		16	434	434	0	75.2	75.2	0	14.0
<b>Layer 1 (≥ 12.5 cm - 17.5 cm dbh)</b>									
Pl	-	14	148	148	0	4.8	4.8	0	2.0
Total Dead Potential			148	148	0	4.8	4.8	0	2.0
Total Live			0	0	0	0	0	0	0
Total All Species		14	148	148	0	4.8	4.8	0	2.0
Total Conifers		14	148	148	0	4.8	4.8	0	2.0
<b>TOTALS: Layer 1</b>									
<b>Total Layer 1 - All Species (Conifers Only)</b>	<b>3.2</b>	<b>18.8</b>	<b>866</b>	<b>866</b>	<b>0</b>	<b>174.6</b>	<b>174.6</b>	<b>0</b>	<b>30.6</b>

TU 1: SURFACE FUEL LOADING (kg/m <sup>2</sup> )					
Size Class (cm)	Existing (kg/m <sup>2</sup> )	Existing Distribution	Target (kg/m <sup>2</sup> )	Target Distribution	Methodology Used
Fine Woody Debris (</=7cm)	0.94	Moderately continuous distribution with accumulations associated with suspended and jackpotted lodgepole pine.	0.5 kg/m <sup>2</sup> (+/- 0.25 kg/m <sup>2</sup> )	Reduce to target levels with an acceptable range of ±0.25 kg/m <sup>2</sup> . Maintain poor continuity between residual pieces and avoid creating aggregations.	Line Intersect Sampling Method
Large Diameter Woody Debris (>7cm – 20cm)	4.41	Continuous distribution of lodgepole pine damaged by mountain pine beetle as well as some hybrid spruce damaged by wind. Pieces typically have a decay class of 2.	2.5 kg/m <sup>2</sup> (+/- 0.5 kg/m <sup>2</sup> )	Reduce below target levels with an acceptable range of ±0.5 kg/m <sup>2</sup> . Ensure poor continuity between retained pieces and avoid creating aggregations.	
Coarse Woody Debris (CWD) (>20cm)	6.02				
<b>Crown Closure (%): 20</b>	<b>Existing Total: 11.37 kg/m<sup>2</sup></b>		<b>Target: 3.0 kg/m<sup>2</sup> (+/- 0.75 kg/m<sup>2</sup>)</b>		

<sup>1</sup> Modify diameter classes as required to suite treatment.

<sup>2</sup> A professional estimate is required for any merchantable cutting

TU 2: STAND AND STOCK TABLE DATA									
Species and Diameter Class <sup>3</sup>	Crown Base Height Range (m)	Average Tree Height (m)	STEMS PER HECTARE (sph)			VOLUME PER HECTARE (m <sup>3</sup> /ha) <sup>4</sup>			Basal Area (m <sup>2</sup> )
			Existing	Cut	Leave	Existing	Cut	Leave	Existing
<b>Layer 1 (≥ 12.5 cm dbh)</b>									
Pl	-	17.7	541	541	0	89.3	89.3	0	17.1
Sx	3.6	20.5	325	0	325	85.3	0	85.3	13.5
Total Dead Potential			453	453	0	76.7	76.7	0	14.7
Total Live			413	0	413	97.9	0	97.9	15.9
Total All Species		19.1	866	453	413	174.6	76.7	97.9	30.6
Total Conifers		19.1	866	453	413	174.6	76.7	97.9	30.6
<b>Layer 2 (≥ 7.5cm - 12.5 cm dbh)</b>									
Sx	2.5	8.4	260	0	260	4.3	0	4.6	5.1
Total Dead Potential			0	0	0	0	0	0	0
Total Live			260	0	260	4.3	0	4.6	5.1
Total All Species		8.4	260	0	260	4.3	0	4.3	5.1
Total Conifers		8.4	260	0	260	4.3	0	4.3	5.1
<b>Layer 3 (≥1.3 m ht. - 7.5 cm)</b>									
Sx	0.6	4.2	574	574	0	-	-	-	-
Total Dead Potential			0	0	0	-	-	-	-
Total Live			574	574	0	-	-	-	-
Total All Species		3.6	574	574	0	-	-	-	-
Total Conifers		3.6	574	574	0	-	-	-	-
<b>Layer 4 (&lt; 1.3 m height)</b>									
Sx	0.2	0.6	255	255	0	-	-	-	-
Total All Species		0.6	255	255	0	-	-	-	-
Total Conifers		0.6	255	255	0	-	-	-	-

TU 2: SURFACE FUEL LOADING (kg/m <sup>2</sup> )					
Size Class (cm)	Existing (kg/m <sup>2</sup> )	Existing Distribution	Target (kg/m <sup>2</sup> )	Target Distribution	Methodology Used
Fine Woody Debris (</=7cm)	0.58	Moderately continuous distribution with accumulations associated with suspended and jackpotted lodgepole pine.	0.5 kg/m <sup>2</sup> (+/- 0.25 kg/m <sup>2</sup> )	Reduce to target levels with an acceptable range of ±0.25 kg/m <sup>2</sup> . Maintain poor continuity between residual pieces and avoid creating aggregations.	Line Intersect Sampling Method
Large Diameter Woody Debris (>7cm – 20cm)	3.92	Moderately continuous distribution of lodgepole pine damaged by mountain pine beetle as well as some hybrid spruce damaged by wind. Pieces typically have a decay class of 2.	2.5 kg/m <sup>2</sup> (+/- 0.5 kg/m <sup>2</sup> )	Reduce below target levels with an acceptable range of ±0.5 kg/m <sup>2</sup> . Ensure poor continuity between retained pieces and avoid creating aggregations.	
Coarse Woody Debris (CWD) (>20cm)	1.98				
<b>Crown Closure (%): 23</b>		<b>Existing Total: 6.48 kg/m<sup>2</sup></b>	<b>Target: 3.0 kg/m<sup>2</sup> (+/- 0.75 kg/m<sup>2</sup>)</b>		

<sup>3</sup> Modify diameter classes as required to suite treatment.

<sup>4</sup> A professional estimate is required for any merchantable cutting

BIODIVERSITY AND FOREST HEALTH CONSIDERATIONS AND TARGETS	
COARSE WOODY DEBRIS (CWD) RETENTION TARGET – Distribution	Using the May 2022 Chief Forester’s Guidance on Coarse Woody Debris Management on Wildfire Mitigation Treatments, the recommendation is to leave 5 CWD pieces per hectare in the SBS dk.
WILDLIFE TREE RETENTION TARGET	Retain up to 10 sph of large diameter (>30 cm dbh) dead potential stems as wildlife snags. Retain one (1) patch (20 x 20 m) of suitable secondary stand structure per hectare for wildlife habitat. Retention patches must be allocated so as to maintain discontinuity to adjacent stands, be anchored around deciduous and dead potential tree retention where practicable, and contain 400-600 sph of healthy poles and/or saplings (where they exist) with good form and vigour. Retain three (3) to five (5) high stumps (>1.0 m) per hectare adjacent to retention patches to ensure they do not incur damage as a result of skidding/yarding activities.
FOREST HEALTH- Should include sections such as agent, affected species, incidence rating, mortality, and targets	Stands have been assessed to be in poor condition due to the impacts of forest health factors. Lodgepole pine overstory trees exhibited high mortality (43.9%) as a result of historical mountain pine beetle infestation. Significant wind damage (39%) has occurred where dead lodgepole pine have succumb to wind and snow loads and have transitioned to the forest floor. Additionally, windthrow contributions from residual stand components are anticipated to increase as stand condition continues to decline and stand density decreases. Evidence of emerging mountain pine beetle infestation was not noted. <b>WINDTHROW RISK EVALUATION</b> Windthrow assessments indicate the proposed treatment activities will result in a moderate potential for future windthrow risk due to topographic location due to prevailing wind directions. Wind damage is common in stands that have been impacted insect occurrences mainly from historical mountain pine beetle infestations.

I. TREATMENT DESCRIPTION
MERCHANTABLE TIMBER CUTTING
ROADS, LANDINGS AND TRAILS: Access to the units will be gained via Keefe’s Landing Road and existing Spur Roads and FSR’s adjacent to the block. Proposed access associated with the treatment areas will include one (1) road permits section and two (2) on-block spur roads. One road permit sections will commence off the Murdoch FSR to access WRR-9 and the access to WRR-7 will be accessed via the Road Permit Section being applied for with Prescription #2. <b>All additional access structures required to accommodate the prescribed treatment activities, or otherwise necessitated by site conditions or to address a safety concern, must be approved by an authorized treatment supervisor.</b>
FELLING: Felling activities will employ mechanical falling equipment (i.e. feller-bunchers, harvesters). If or where any hand felling activities are used, they must be carried out by Fallers certified to the BC Faller Training Standard (BCFTS) with the skills and experience to achieve the treatment specifications without damaging residual stand components.
YARDING/SKIDDING: Conventional ground-based primary transport equipment (i.e. rubber-tired skidders, forwarders, etc.) will be utilized to carry out skidding/yarding activities. If rubber-tired skidders are utilized, retain high stumps (<1.0 m in height) adjacent to retained trees to prevent retention from incurring damage as a result of yarding and skidding activities.
LOADING AND HAULING: Loading activities will be carried out within the right of way of proposed access structures and any required landings. Hauling activities will be carried out using an appropriate logging truck configuration for the harvest systems employed and processing facility requirements.

<p><b>SLASH DISPOSAL:</b></p> <p>Treatment residues and existing downed woody material in excess of prescribed &gt;7.0 cm targets will be brought to road right of ways to facilitate biomass utilization where practicable. Material should be marketed to local processing facilities where a biomass fibre recovery opportunity exists. Where a biomass recovery opportunity does not exist alternative markets/users should be explored, or the material should be piled and burned on site.</p> <p>The quantity and distribution of biomass resulting from initial mechanical treatment phases will vary with the harvest systems used. Roadside processing may improve biomass recovery opportunities relative to processing at the stump, especially where selection systems have been proposed. Processing at the stump, while improving other objectives, will result in increased dispersed fuel loads and increase the requirement for fire hazard abatement activities.</p> <p><b>STRATEGIES TO IMPROVE BIOMASS UTILIZATION:</b></p> <ul style="list-style-type: none"> <li>- Aggregate treatment residues, unutilized dead and down material, and bucking waste within utilization requirements for biomass facilities within road right of ways.</li> <li>- Avoid incorporating mineral soil and other contaminants into piles.</li> </ul>
<p><b>STAND MODIFICATION TREATMENTS</b></p>
<p><b>BRUSHING:</b> Manual brushing treatments have not been prescribed.</p>
<p><b>PRUNING:</b> Pruning treatments have not been prescribed.</p>
<p><b>THINNING:</b> Thinning from below to a height of 4.5 m is only required on residual coniferous trees where contiguous crown ratio of &gt;50% coverage exists.</p>
<p><b>DEBRIS PILING:</b></p> <p>Un-utilized biomass – including treatment residues and residual downed woody material – in excess of prescribed surface fuel load reduction targets outside of right of ways will be aggregated into debris piles. Debris piles must be a minimum of ½ the height of the pile’s base width with taller piles being preferred. Surface fuels with a decay class of 4 or 5 do not contribute to surface fuel load calculations and may be retained on site.</p> <p><b>STRATEGIES FOR DEBRIS PILING:</b></p> <ul style="list-style-type: none"> <li>- Carry out debris piling activities in snow free conditions.</li> <li>- Construct piles in locations that prevent retention from incurring heat damage and crown scorching during pile burning activities (i.e. within natural openings).</li> <li>- Ensure piles contain a mix of material sizes and decay classes to facilitate effective ignition and complete combustion.</li> <li>- Avoid incorporating mineral soil and other non-combustible debris into piles.</li> </ul>
<p><b>PILE BURNING:</b></p> <p>Burning activities must be carried out in compliance with the Wildfire Act and its Regulation as well as the Environmental Management Act (EMA); namely the Open Burning and Smoke Control Regulation (OBSCR).</p> <p>The treatment area is within a Medium Smoke Sensitivity Zone (SSZ) as indicated by Smoke Sensitivity Zone map #38 – Nechako River (93F). All open burning activities within the Keefe’s Landing WRR area are subject to the requirements of section 9, 10, 11, 13, 14, and 15 of OBSCR. However, the FTU falls under a plan for community wildfire risk reduction – the Nadina South Side Wildfire Risk Reduction Tactical Plan – and therefore may be carried out in accordance with section 23 of OBSCR where open burning activities are anticipated to last less than one (1) day, or under the conditions outlined in an approval issued under section 15 of the EMA.</p> <p>No Private residences or business buildings have been identified &lt;150 m of the treatment area</p> <p>If pile burning activities will be carried out in a manner that meets the definition of a Category 3 Open Fire, as defined by the Wildfire Regulation, a Burn Registration Number (BRN) will be required. A BRN can be obtained from BCWS by calling 1-888-797-1717 or emailing hpr.1800@gov.bc.ca.</p> <p><b>STRATEGIES FOR PILE BURNING:</b></p> <ul style="list-style-type: none"> <li>- Ensure all piled debris is dry and seasoned as per the definition provided by the OBSCR.</li> <li>- Obtain custom venting forecasts to identify optimal burning opportunities.</li> <li>- Consider the utilization of an Air Curtain Burner.</li> </ul>
<p><b>MULCHING:</b> Mulching treatments have not been prescribed.</p>
<p><b>MASTICATION:</b> Mastication treatments have not been prescribed.</p>
<p><b>GRINDING:</b></p> <p>In the event that debris can sold to a biomass facility, it is likely that a grinding unit will come directly to the site to prepare the debris into the exact specifications to be shipped via a chip transport truck. If this phase is planned to occur, ensure that road access is maintained to all debris piles locations.</p>

<b>PRESCRIBED FIRE:</b> Prescribe Fire treatments have not been prescribed.
<b>PLANTING:</b> Fire Management Stocking Standards are not provided in the Agreement Holders current approved FSP and therefore an amendment to the Chinook CFA FSP 2016 stocking standards is being proposed. It is recommended that the Wildfire Risk Reduction stocking standard be requested for all Chinook CFA Wildfire Risk Reduction project areas as these standards are in line with the <i>BCWS Fuel Management Prescription Guidance 2022</i> .
<b>OTHER:</b> N/A
<b>AUTHORIZATION AND TIMBER TENURE</b>
<b>FRPA Section 52(1)(b):</b> The Agreement Holder (CFA:K4R) maintains the timber rights for all merchantable timber harvested as a result of treatment implementation unless relinquished by the CFA holder and authorized by FPRPA Section 52 (1) (b).
<b>Forestry License to Cut (FLTC):</b> Not anticipated.
<b>Park Use Permit:</b> N/A
<b>Road Permit or Road Use Permit:</b> One new Section for R21201 will be applied for with this Prescription area.
<b>Other (i.e. local government, utilities, etc.):</b> N/A

<b>J. POST TREATMENT</b>
<b>EXPECTED VEGETATION RESPONSE:</b> Treatment activities are anticipated to result in a moderate vegetative response. Increases to shrub and herbaceous cover and the ingress of various grasses is expected throughout the treatment areas. The establishment of coniferous regeneration is expected to be variable, although site disturbance associated with treatment activities has the potential to promote root suckering where trembling aspen stand components exist.
<b>ADDITIONAL TREATMENTS OR MAINTENANCE:</b> Where clearcut systems have been employed, carry out stand monitoring at an interval that aligns with the required silvicultural assessments. The results of silviculture assessments will inform the mid to long term requirement for maintenance.
<b>SILVICULTURE OBLIGATIONS:</b> Do silvicultural obligations apply to the treatment area? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>PLANTING:</b> Is planting a treatment identified in this prescription or required as a legislative obligation? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> In SU 1 (both TU 1 and TU 2) an even-aged stocking standard has been applied as is shown in the table below.

<b>STOCKING STANDARDS:</b>													
<b>APPLICABLE EVEN-AGED STOCKING STANDARDS for all variations of Clearcut Silviculture Systems:</b>													
TU	SU	Stocking Standard ID	Species (Pref.)	Species (Accep.)	Well-Spaced Stem/ha				Minimum Height (m)			Regen Delay	Free Growing (years)
					TSS	MSS		MITD	PI	Others	RTH (%)		
						Pref. & Acc.	Pref.						
1 / 2	1	TBD	PLI SX FDI LW AT EP AC	-	1200	700	600	2.0	2.0	1.0	-	4	20

<b>K. Outstanding Works</b>
1.) Obtain the appropriate authorizations for the FRPA Section 52(1)(b) and for the new sections required to R21201 road permit.
2.) Obtain District Manager approval for the proposed alternative stocking standards, or upon the approval of the Chinook CFA:K4R FSP adopt the applicable fire management stocking standards if appropriate.
3.) If required, obtain the appropriate approval(s) – under section 15 of the EMA – to exempt pile burning activities from the requirements of sections 9, 10, 11, 13, 14 and 15 and Part 3 of OBSCR.
4.) Obtain the appropriate authorizations or exemptions for those portions of the treatment area that are within a Priority Deferral Area identified by the Old Growth Strategic Review and the Old Growth Technical Advisory Panel.

<b>L. ADMINISTRATION</b>	
<b>PREPARATION</b>	
FOREST PROFESSIONAL NAME ( <i>Printed</i> ): Jennifer Hill, RPF	FOREST PROFESSIONAL SIGNATURE: 
MEMBER NUMBER: 3889	DATE: 2023-01-31

<b>M. ATTACHMENTS</b>	
MAPS: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	FIELD DATA CARDS: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
WUI WTA Plots and Photos: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	CRUISE DATA: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
AIR PHOTOS/IMAGERY: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	BURN PLAN: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
MODELING/DATA ANALYSIS: Yes <input type="checkbox"/> No <input type="checkbox"/>	OTHER: <a href="#">Migratory Bird Nest Ranking Spreadsheet</a> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> OTHER: <a href="#">WTA Worksheets</a> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
SURFACE FUEL LOADING DATA: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
TERRAIN STABILITY ASSESSMENT Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Completed By: Date:	VISUAL IMPACT ASSESSMENT Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Completed By: Date:
ARCHAEOLOGY IMPACT ASSESSMENT Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Completed By: Date:	BIOLOGIST ASSESSMENT Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Completed By: Date:
ADDITIONAL COMMENTS: MAPS: The following maps have been provided to support the prescribed activities: <ul style="list-style-type: none"> <li>• Prescription Map</li> <li>• Ortho Treatment Map</li> <li>• Location Map</li> </ul>	

# K4R / FESBC Wildfire Risk Reduction Prescription Map # 3

Nadina Natural Resource District  
Northwest Fire Centre- Nadina Zone  
FMTU-Keefe's Landing Rd  
CFA-K4R  
93F.091

Field Work By: Jennifer Hill  
Map Produced By: Loretta Johnson  
Date: November 29, 2022

Block	WTRA	TU-1	TU-2	GROSS Ha
WWR-6	1.1	0.0	2.3	3.4
WRR-7	1.2	1.8	7.8	10.8
WWR-8	0.5	0.0	1.5	2.0
WWR-9	0.4	7.3	0.0	7.7
<b>Totals</b>	<b>3.2</b>	<b>9.1</b>	<b>11.6</b>	<b>23.9</b>

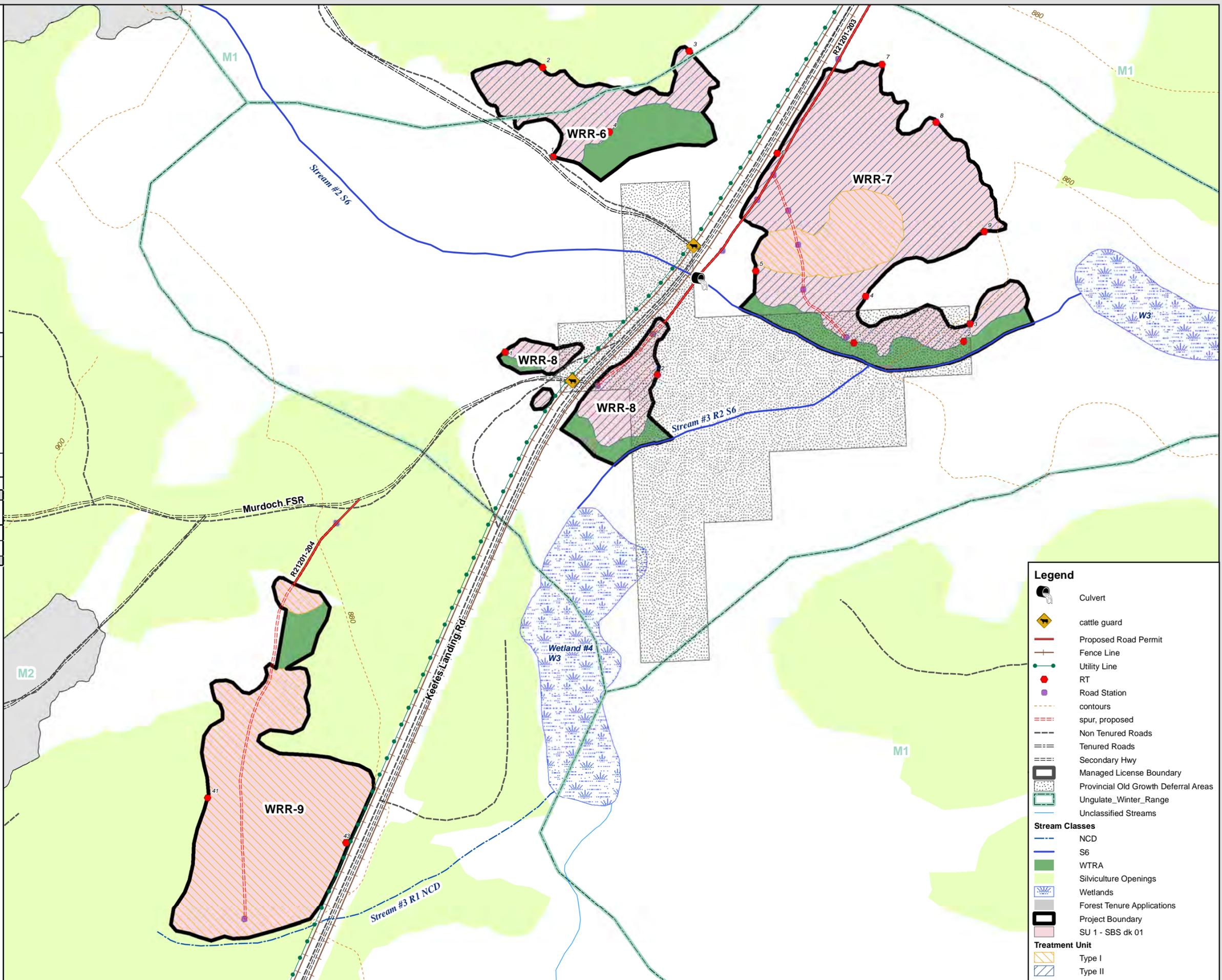
TREATMENT UNIT (TU) SUMMARY							
TU	SU	NET AREA (ha)	GROSS AREA (ha)	LEAVE AREAS (ha)	NP (ha)	NAR (ha)	TREATMENT REGIME
1	1	9.1	9.5	0.4	0	9.1	CCRES / HARV / SFR / Mechanical Debris Pile & Burn
2	1	11.6	14.4	2.8	0	11.6	CCDRET / HARV / SFR / Mechanical Debris Pile & Burn
<b>TOTALS</b>		<b>20.7</b>	<b>23.9</b>	<b>3.2</b>	<b>0</b>	<b>20.7</b>	



0 25 50 100 150 200 Meters

1:5,000

Free Growing Forestry Ltd. **Free Growing Forestry Ltd.**  
PO Box 510, 135 1st Ave, Burns Lake, BC V0J 1E0  
Phone (250) 692-3443 Fax (250) 692-3464  
Email: loretta.johnson@freegrowing.ca



**Legend**

- Culvert
- cattle guard
- Proposed Road Permit
- Fence Line
- Utility Line
- RT
- Road Station
- contours
- spur, proposed
- Non Tenured Roads
- Tenured Roads
- Secondary Hwy
- Managed License Boundary
- Provincial Old Growth Deferral Areas
- Ungulate\_Winter\_Range
- Unclassified Streams

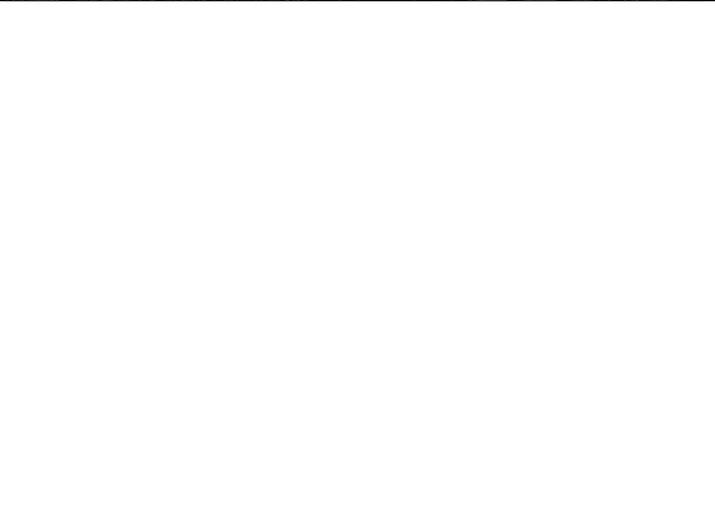
**Stream Classes**

- NCD
- S6
- WTRA
- Silviculture Openings
- Wetlands
- Forest Tenure Applications
- Project Boundary
- SU 1 - SBS dk 01

**Treatment Unit**

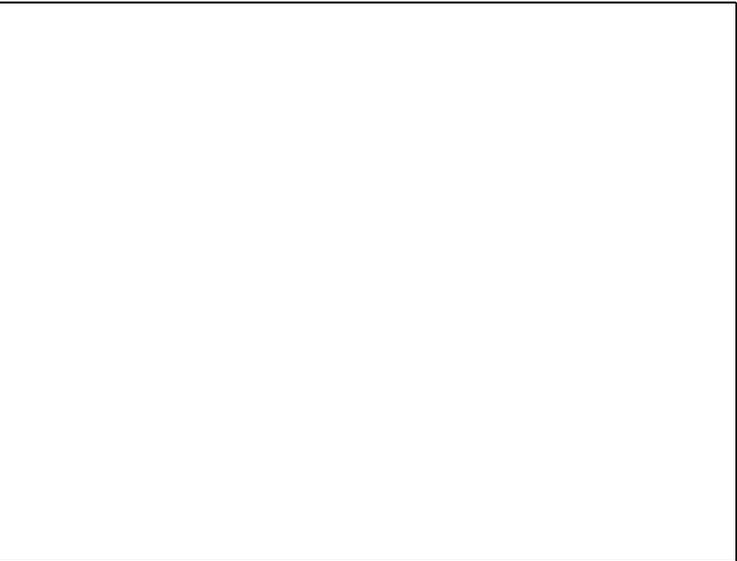
- Type I
- Type II

**Rx 3 – Ground Fuels Photos:**

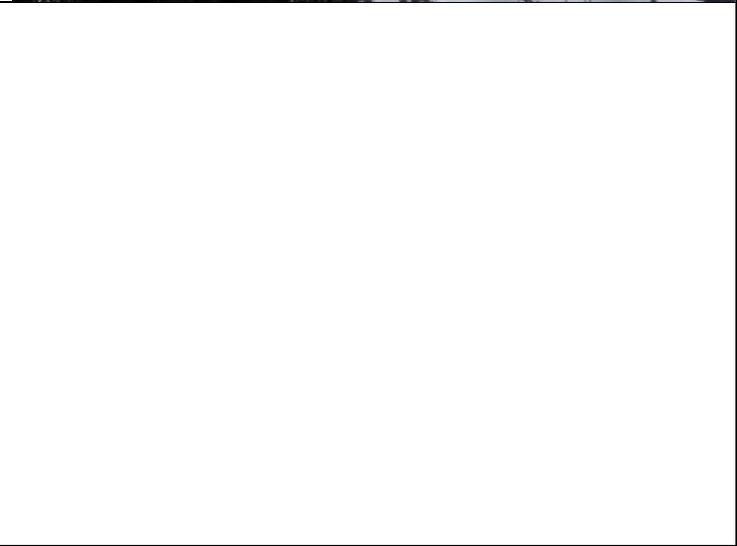


**Rx 3 – Ladder Fuels Photos:**





**Rx 3 – Crown Photos:**



<b>A. PROJECT IDENTIFICATION</b>	
<b>PROJECT ID AND UNIT ID:</b> <b>K4R/FESBC Wildfire Risk Reduction – Prescription #4</b> 4.0 km to 5.1 km Keefe’s Landing Road Original WRR Shapes #10, 11, 12	<b>LAND OR TENURE HOLDER:</b> Chinook Community Forest Tenure K4R (CFA:K4R)
<b>LATITUDE/LONGITUDE:</b> 53° 53’ 58.4” N, 125° 56’ 03” W	<b>GEOGRAPHIC DESCRIPTION:</b> Keefe’s Landing Road, 4.0 km to 5.1 km
<b>HIGHER-LEVEL PLAN(s):</b> Lakes District Land and Resource Management Plan – 2000 Lakes South Sustainable Resource Management Plan – 2003	<b>MAP REFERENCE NUMBER:</b> 93F 081

<b>B. FUEL TREATMENT PROJECT DESCRIPTION</b>			
<b>OBJECTIVE:</b>	<input checked="" type="checkbox"/> Public Safety	<input checked="" type="checkbox"/> Range Improvement	<input checked="" type="checkbox"/> Ecosystem Restoration
	<input type="checkbox"/> Recreation	<input type="checkbox"/> Wildlife Habitat	<input type="checkbox"/> Other:
<p>Prescription Area #4: Keefe’s Landing Road Wildfire Risk Reduction (WRR) area is on the south side of François Lake and is bordered by Crown land. This unit is entirely within the Chinook Community Forest (CFA:K4R) tenure area and has been identified as a high priority corridor by the British Columbia Wildfire Service (BCWS) WRR Tactical Plan.</p> <p>The unit is within the François Lake Wildland Urban Interface (WUI) Risk Class (RC) polygon which has been assigned a risk class rating of 2 due to the prevalence of High Value Resources and Assets (HVRAs) namely the infrastructure and community values along the Keefe’s Landing Road. The Provincial Strategic Threat Analysis (PSTA) has classified stands within the unit as having a Final Threat Rating (FTR) of high (7) to extreme (9). This rating considers the anticipated head fire intensities and spotting impacts for the fuel types present as well as historical fire densities. Initial spread index (ISI) roses generated by the Grassy Plains Hub (161) fire weather station indicate that prevailing winds during the core fire season are typically from the southwest.</p> <p>The objectives of this Prescription are to:</p> <ul style="list-style-type: none"> <li>• reduce the risk of wildfire to public safety by modifying forest fuels within wildland urban interface (WUI) areas – specifically the properties, residences, and infrastructure near the Keefe’s Landing Road.</li> <li>• reduce the risk of wildfire to public safety by modifying fuels adjacent to critical evacuation corridors – specifically those along the Keefe’s Landing Road network.</li> <li>• reduce the risk of wildfire to critical infrastructure and property by modifying forest fuels adjacent to, or likely to influence forest fuels adjacent to, identified values at risk.</li> <li>• develop ecologically appropriate and effective wildfire risk reduction solutions that give due regard to overlapping land management objectives and tenure obligations.</li> <li>• develop ecologically appropriate and effective wildfire risk reduction solutions that give due regard to site and stand conditions to maintain forest health and site productivity.</li> <li>• create defensible space for wildland fire fighters to anchor suppression strategies and tactics from during incident response by removing or modifying hazardous forest fuels in a way that improves firefighter safety and reduces fire behaviour potential.</li> </ul>			

<b>STRATEGIES:</b>	<p>Wildfire risk reduction objectives will be achieved through the application of treatment regimes designed to address site and stand specific conditions. Treatments will reduce fire behaviour potential through the modification or removal of hazardous forest fuels as well as through reductions to surface fuel load contributions from downed woody material and treatment residues. Stand modifications are intended to reduce fire intensities and reduce continuity between forest fuels, and therefore reduce the potential for the propagation and persistence of crown fire as well as the potential for spotting. Treatment intensities increase with the level of hazard identified as well as in response to anticipated operational limitations.</p> <p>The prescribed treatment activities balance WRR objectives with established land use objectives and existing tenure obligations to reduce the risk of wildfire to public safety, promote natural processes and maintain ecosystem function, as well as to reduce open burning requirements through the utilization of biomass.</p>
<b>METHODS:</b>	<p>The proposed operational treatment for this TU 1 of this Prescription area will be a Clearcut with Reserves (CCRES) Silviculture System and TU 2 will be a Clearcut with Dispersed Retention (CCDRET) Silviculture System as both TU's requires significant stand modification to address the hazardous stand conditions. Stand conditions are poor in these areas due to the impacts of historical insect infestations and subsequent wind events. The prescription area will provide moderate to marginal commercial fibre recovery opportunities. Initial stand entries require an overstory removal phase utilizing conventional ground-based harvest (HARV) methods. Final treatment phases require surface fuel load reductions (SFR) to dead and down material and treatment residues by mechanical surface fuel reductions to existing downed woody materials and treatment residues to ensure surface fuel load targets are achieved.</p> <p>Surface fuel reduction targets are intended to reduce surface fire intensities to a level below critical surface fire intensity thresholds (&lt;2000 kW/m) under 90th percentile fire weather conditions as well as to comply with provincial fuel hazard abatement requirements.</p> <p>Prescription area design and specifications have been developed with consideration of the influence of topography. However, fine adjustments to initial spread indexes (ISI) to account for the influence of slope have not been incorporated into treatment specifications.</p>

C. TREATMENT UNIT (TU) SUMMARY							
TU	SU	NET AREA (ha)	GROSS AREA (ha)	LEAVE AREAS (ha)	NP (ha)	NAR (ha)	TREATMENT REGIME (i.e. PRUNE THIN, PILE BURN, BROAD, CHAUL, ETC.)
1	1	3.0	3.0	0	0	3.0	CCRES / HARV / SFR / Mechanical Debris Pile & Burn
2	1	6.9	8.2	1.3	0	6.9	CCDRET / HARV / SFR / Mechanical Debris Pile & Burn
<b>TOTALS</b>		<b>9.9</b>	<b>11.2</b>	<b>1.3</b>	<b>0</b>	<b>9.9</b>	

D. SITE CHARACTERISTICS							
TU	<u>CFFBPS FUEL TYPE</u>	TIMBER TYPE	BGC SUBZONE, VARIANT & SITE ASSOC.	ELEVATION RANGE (m)	SLOPE POSITION	SLOPE RANGE (%)	ASPECT
1	C2	MATURE Coniferous	SBS dk 01	885 – 905	Middle	3 – 7	Southeast
2	C2	MATURE Coniferous	SBS dk 01	885 – 910	Middle	2 – 6	Southeast
<b>FUEL TYPE DETERMINATION</b>		<p>TU1: C2 is the fuel type is used for representing mountain pine beetle (MPB) affected stands.</p> <p>TU 2: C2 is the fuel type used, based upon observed fire behaviour, for mid-elevation interior white spruce and hybrid spruce stands throughout the province.</p>					

E. SOIL CHARACTERISTICS							
TU	SOIL TEXTURE	DUFF DEPTH (cm)	COARSE FRAGMENTS (%)	SOIL DISTURBANCE LIMIT (%)	SOIL HAZARD RATING		
					Compaction	Erosion	Displacement
1	SL	3	45 - 55	10	M	M	L
2	SL	3	45 - 55	10	M	M	L

F. VALUES – FOREST AND RANGE PRACTICES ACT				
<b>RIPARIAN &amp; LAKESHORE AREAS</b> - 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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	Riparian features that occur within the Chinook Community Forest Agreement (CFA) tenure area have been managed in accordance with section 6.5.2 of the approved Chinook CFA Forest Stewardship Plan (FSP) 2016 and are otherwise compliant with the requirements of section 47 to 51, 52(2), and 53 of the FPPR.		
<b>RIPARIAN MANAGEMENT AREAS (RMAs)</b> - FPPR sections 51 and 52				
STREAM, LAKE, WETLAND ID	CLASS	RRZ (m)	RMZ (m)	SPECIFICATIONS FOR RIPARIAN OR LAKESHORE MANAGEMENT AREAS
Stream #4	NCD	0	0	A 50m section of the NCD is within the boundary of WRR-10.
<b>TEMPERATURE SENSITIVE STREAMS</b> - 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been prescribed in areas that contain, are adjacent to, or are a direct tributary to an identified temperature sensitive stream.		
<b>ROAD CONSTRUCTION IN RIPARIAN MANAGEMENT AREAS</b> - FPPR section 50				
Is road construction proposed in riparian management areas within the treatment area or an associated road permit (RP)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Road construction activities have not been proposed within the RMA of any identified riparian feature.		
<b>STREAM CROSSINGS</b> - 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	There are no riparian crossings associated with this prescription.		

<b>MAINTAINING STREAM BANK AND CHANNEL STABILITY ON S4, S5, and S6 STREAMS - FPPR section 52 (2)</b>				
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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been prescribed within the RMZ of an S4, S5, or S6 stream that is a direct tributary to an S1, S2, or S3 stream, and therefore the basal area retention requirements for maintaining stream bank and channel stability provided by section 52 of the FPPR do not apply.		
<b>DOMESTIC WATER LICENCES (inside or outside of community watershed) - FPPR section 59</b>				
Does the proposed treatment area contain water sources that are diverted for human consumption by a licensed waterworks?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area does not include water sources that are diverted for human consumption by a licensed waterworks.		
<b>LICENCED WATER WORKS (inside or outside of a community watershed) - FPPR section 60</b>				
Does the proposed treatment include areas that are within 100m of a licensed waterworks?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment and road construction activities have not been proposed within 100 m of a licensed waterworks that is within a community watershed.		
<b>FISHERIES SENSITIVE WATERSHED - GAR section 14, FPPR section 8.1</b>				
Are any activities proposed within a fisheries sensitive watershed?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed within a fisheries sensitive watershed.		
<b>COMMUNITY WATERSHED - GAR section 8, FPPR section 8.2, 61, 62 and 84</b>				
Does the proposed treatment area include areas that are within a community watershed?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed within a community watershed.		
Will this project require road construction or deactivation within a community watershed?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment and road construction activities have not been proposed within a community watershed.		
<b>WATERSHED ASSESSMENT CONSIDERATIONS - FRPA section 180 areas with "significant watershed sensitivity"</b>				
Does the proposed treatment area include areas that have watershed assessment considerations?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed in areas identified as having significant watershed sensitivity or other watershed assessment considerations.		
<b>SOIL DISTURBANCE AND PERMANENT ACCESS STRUCTURES - FPPR sections 35 and 36</b>				
Treatment Unit (TU)  1 / 2	Proposed Max. Allowable Soil Disturbance (5% or 10%)  10%	Proposed Max. Soil Disturbance for Roadside Work Areas  25%	Proposed Max. Permanent Access Structures  5%	Comments  Proposed permanent access structures calculated at 3.0%, and they will be planted once all treatment activities are complete.
Do the proposed Permanent Access Structures exceed 7% of the total area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Permanent access structures will not exceed 7%.		
<b>LANDSLIDES AND TERRAIN STABILITY - FPPR section 37</b>				
Does the proposed treatment area include areas where terrain stability is a concern?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Indicators of slope instability or landslides were not noted within the treatment area.		

<b>SUITABLE SECONDARY STRUCTURE - FPPR section 43.1</b>		
Does the proposed treatment area include a “targeted pine leading stand”?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed in a “targeted pine leading stand” as defined by section 1 of the FPPR. Additionally, the treatment activities proposed will occur entirely within a community forest agreement (CFA) license for the purpose of wildfire risk reduction and therefore, as per section 43.1(4) and 43.1(2) of the FPPR, the secondary stand structure retention specifications set out by section 43.1(1) of the FPPR do not apply.
<b>UNGULATE WINTER RANGE - GAR section 12, FRPA sections 180 and 181, FPPR section 69</b>		
Does the proposed treatment area include areas within an Ungulate Winter Range?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Treatment activities have been proposed in a Special Resource Management Sub-Zone 4 with identified M2 ungulate winter habitat for Moose for WRR-10, 11 & 12. Prior to the commencement of treatment activities the Agreement Holder will ensure that the habitat requirements for the winter survival of ungulate species specified by s.6.4.2 of the FSP are maintained.
<b>WILDLIFE HABITAT AREA - GAR section 10, FRPA sections 180 and 181, FPPR section 69</b>		
Does the proposed treatment area include any wildlife habitat areas (WHA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area does not overlap any mapped or otherwise identified wildlife habitat areas.
<b>MIGRATORY BIRD CONVENTION ACT – 1994</b>		
Does the proposed treatment have the potential to impact migratory bird habitat?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The nest density ranking for this Prescription area is 2 and therefore is not likely to impact Migratory Bird Habitat.
<b>OBJECTIVES SET BY GOVERNMENT FOR WILDLIFE - FPPR section 7</b>		
Does the proposed treatment area include areas to which objectives for wildlife under FPPR section 7 apply?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	A legal order establishing objectives set by government for wildlife has not been enacted in the Lakes district and objectives are not specified in the Lakes LRMP or the Lakes South SRMP. Two notices, enabled under section 7(2) of the FPPR, specifying indicators of the amount, distribution and attributes of wildlife habitat required for the winter survival of ungulate species as well as for the survival of species at risk exist for the Lakes and Nadina districts, respectively.
<b>OBJECTIVES SET BY GOVERNMENT FOR BIODIVERSITY OBJECTIVES (Landscape Level) - FPPR Part 4 Division 5</b>		
Does the proposed treatment area include areas to which objectives for landscape level biodiversity under FPPR section 9 apply?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	The design of the proposed Wildfire Risk Reduction areas will resemble, both spatially and temporally, the patterns of natural disturbance that occur within the landscape.
<b>OBJECTIVES SET BY GOVERNMENT FOR BIODIVERSITY OBJECTIVES (Stand Level) - FPPR Part 4 Division 5</b>		
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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	Two external Wildlife Tree Patch areas amounting to 1.3ha (11.6%) have been identified with this plan.

<b>RECREATION FEATURES - FRPA section 56 and 149, FPPR section 70</b>		
Does the proposed treatment area contain interpretive sites, recreation trails, recreation sites, recreation facilities that are of significant recreation value and are designated a resource feature?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area does not contain known interpretive sites, recreation trails, recreation sites, recreation facilities that are considered to be of significant recreation value and are designated a resource feature.
<b>VISUAL QUALITY OBJECTIVES - GAR section 7, FRPA sections 180 and 181, FPPR section 9.2</b>		
Is the proposed treatment within a scenic area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Proposed WRR blocks are not within a Scenic area nor a VQO – Retention polygon.
<b>ARCHAEOLOGICAL RESOURCES/CULTURAL HERITAGE RESOURCES - FPPR section 10</b>		
Are there any known archaeological sites or cultural heritage resources that are important to First Nations within the proposed area?  No Referral to Land Manager is required if proposed TU is on the applicant's own First Nation Land.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The proposed WRR blocks do not overlap with any CHR High Archaeological polygons nor were any archaeological sites or cultural heritage resources (CHR) identified with the proposed treatment areas. In the event that additional CHR features are identified or otherwise made known during First Nation information sharing and consultation, measures to protect the CHR or address First Nation concerns must be communicated by an addendum to, or an amendment of this prescription. In the event that previously unidentified CHR features are encountered while carrying out treatment activities, work in the area must stop, and an authorized treatment supervisor must be notified. The Agreement Holder will complete a cultural heritage resource evaluation (CHR) and provide management direction to protect or otherwise manage for the identified feature(s).
<b>INVASIVE PLANTS - FRPA section 47 and FPPR section 17</b>		
Is the introduction and spread of invasive plants likely as a result of the proposed treatment?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Review of the Invasive Alien Plant Program (IAPP) database indicated the presence of invasive plant species adjacent to the FTU along the Keefe's Landing Road. IAPP sites include Orange Hawkweed (OH), Meadow Buttercup (MB), Oxeye Daisy (OD), Scentless Chamomile (SH), Common Tansy (TC), and Yellow Hawkweed (YH).
<b>NATURAL RANGE BARRIERS - FRPA section 48, FPPR section 18</b>		
Are there natural range barriers within the proposed treatment area that are likely to be removed or rendered ineffective?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Fencelines exist along both sides of Keefe's Landing Road and there is one cattleguard on the Fish Lake FSR (Moose Pit Rd). In the event that fencelines or cattleguards are damaged, they will be repaired to the pre-damaged condition.
<b>SPECIES AT RISK – FPPA section 7</b>		
Are there species at risk present within the boundaries of the prescribed treatment area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No known occurrences of a species at risk were noted during field assessments or through review of BC Conservation Data Centre spatial data.
<b>LAND USE OBJECTIVES (Higher Level Plans and objectives set by Government under the <i>Land Act</i>)</b>		
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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Prescribed activities are not expected to conflict with other land use objectives not specifically addressed by this prescription.

<b>LAND USE OBJECTIVES</b> (Higher Level Plans and objectives set by Government under the <i>Land Act</i> ) Cont'd		
Do the proposed activities conflict with land use objectives (higher level plans or objectives under the <i>Land Act</i> )?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Prescribed activities are not expected to conflict with other land use objectives not specifically addressed by this prescription.
Known and potential species at risk, windthrow hazard, and old growth management areas?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed in an old growth management area (OGMA) established by the Lakes South SRMP.
Do the proposed activities conflict with Provincial Priority Deferral Areas (PROV. DEF) identified by the Old Growth Strategic Review?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Proposed harvest area WRR-10 overlaps into the newly designated PROV. DEF by 60%. The Agreement Holder has an exemption from the Nadina Resource District to allow for the overlap between the PROV. DEF areas and all Wildfire Risk Reduction proposed areas.

**G. OTHER CONSIDERATIONS AND REQUIREMENTS**

<b>CONSULTATION – FIRST NATIONS:</b> Info-share was initiated on April 22, 2022 and Adequacy Letter is called: 10455-50/22 K4R WRR IS1 and is dated July 04, 2022		
<b>FIRST NATION</b>	<b>CONCERNS IDENTIFIED AND MEASURES TO ADDRESS</b>	
Nee Tahi Buhn Band	No concerns brought forward.	
Skin Tyee Nation	No concerns brought forward.	
Stellat'en First Nation	No concerns brought forward.	
Wet'suwet'en First Nation	No concerns brought forward.	
Office of the Wet'sewet'en	No concerns brought forward.	
First Nations consultation complete?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<b>CONSULTATION – GENERAL, EXISTING TENURE HOLDERS</b> (Forest, Range, Guide Outfitters, Trappers): Info-share was initiated for existing Tenure Holders on April 22, 2022.		
<b>Tenure Holder</b>	<b>Concerns?</b>	<b>Measures proposed to address licensee's concerns</b>
Range: George Amendt	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Carl Doglione	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Sharon Robertson	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Ootsa Lake Cattle Company	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Victor Bateson	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Jonathan Solecki	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Jack Burt	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Clint Lambert	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Elizabeth McEntire	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Harold Moroski	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T014	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T017	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T018	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T019	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T020	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Guide Outfitter: James Lancaster	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Guide Outfitter: Brett Hall	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Guide Outfitter: Gary Blackwell	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.

PRIVATE PROPERTY		
Does private property border the proposed treatment area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	There is no private land immediately adjacent to any of these proposed WRR shapes.
SMOKE MANAGEMENT		
Does a smoke management plan beyond OBSCR exist for the proposed treatment area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area is within a Medium Smoke Sensitivity Zone and therefore the <i>August 2021 Community Wildfire Risk Reduction Open Burning Smoke Control Regulations</i> will be followed for the burning of debris piles.
SAFETY		
Have any specific safety concerns been identified in or adjacent to the proposed treatment area?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	The level of blowdown within these proposed treatment areas are very high. Cattle within this range tenure area are no longer able to use portions of this area as they are completely impassable.
UTILITIES		
Are utilities located in or adjacent to the proposed treatment area? i.e. power lines, gas lines, etc.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	All four of the proposed shapes within this Prescription area are adjacent to Utility Lines.
ACCESS CONTROL		
Are there any foreseen issues with access and access control during and post treatment?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	There are no foreseen access issues for access to any of the proposed Wildfire Risk Reduction shapes in this Prescription.
TRAFFIC CONTROL		
Is traffic control required at any point during operations?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	There is no need for traffic control on these shapes because timber will be felled into the blocks, and there is a minimum of a tree length previously cleared between the blocks and the Keefe's Landing Road.
OTHER (E.g Public Notification)		
Notification of commencement of harvesting activities should be posted on Chinook Community Forest's Facebook Page.		

H. STAND AND STOCK TABLE
<p>Is merchantable timber cutting prescribed? If yes, please provide details below.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>About 73.8% percent of the treatment unit contains merchantable timber. The intent of this project is to recover as much fibre as possible from these proposed areas. The appropriate tenure authorization method will be applied for once timber purchase agreements have been arranged.</p>
<p>Are there any challenges to utilizing merchantable material? If yes, please provide details below.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>There is extensive blowdown, dead standing and ladder fuels throughout the Prescription area. Much of the volume that is down on the ground and overlapping has been dead and down for many years now. The hope is that the merchantable stems can be separated out efficiently and effectively from the stems that cannot to aid in a seamless flow of merchantable timber from the Prescription area. The plan would then be for the non-merch material to also potentially be shipped to a biomass facility, or potentially that a grinding unit would arrive on site to process the debris. Alternatively, debris may be left on site for a small period of time so that community members may come and load the material for firewood.</p>

TREATMENT SPECIFICATIONS SUMMARY	
TU 1	TREE REMOVAL/RETENTION STRATEGY BY SIZE/SPECIES (Summarize specifications identified in table above)
1	<p><b>Silviculture Systems:</b> Clearcut with Reserve (CCRES)</p> <p><b>Treatment Regimes:</b> Conventional Harvest or Forwarder (HARV), Hazard Tree Removal (HTR), Surface Fuel Reduction (SFR), Mechanical Pile (MPILE) and potential for Burning (PILE BURN)</p>
2	<p><b>Silviculture Systems:</b> Clearcut with Dispersed Retention (CCDRET)</p> <p><b>Treatment Regimes:</b> Conventional or Forwarder Harvest (HARV), Hazard Tree Removal (HTR), Surface Fuel Reduction (SFR), Mechanical Pile (MPILE) and potential for Burning (PILE BURN)</p>
TU 1 - TREATMENT SPECIFICATION RATIONALE	
<p>Treatment activities will utilize a Clearcut with Reserve silviculture system which primarily requires the use of mechanical treatment methods. Initial treatment phases will remove remnant hazardous overstory fuels consisting of 73.1 m<sup>3</sup>/ha hybrid spruce and lodgepole pine – approximately 51.6% of this volume is dead potential lodgepole pine. Secondary treatment phases will require surface fuel reductions to the specified targets by means of mainly mechanical methods, (with the potential for manual treatment methods). Final treatment phases will require surface fuel reductions to the specified targets by means of manual/mechanical piling. Treatment activities are expected to transition stands from a C-2 fuel type (Boreal Spruce *with MPB affected stands) to a C-6 (Conifer Plantation) and reduce surface fire intensities significantly.</p> <p>To reduce predicted fire behaviour the following treatment specifications have been applied:</p> <ul style="list-style-type: none"> <li>- Retain all live deciduous trees except where their removal is necessary to address a safety concern.</li> <li>- Remove all live and dead overstory and understory coniferous trees unless the tree is to be retained to achieve biodiversity objectives or the tree has been identified as a wildlife habitat or cultural heritage feature.</li> <li>- Reduce &lt;7.0 cm surface fuel loads to 0.5 kg/m<sup>2</sup> (+/- 0.25 kg/m<sup>2</sup>).</li> <li>- Reduce &gt;7.0 cm surface fuel loads to 2.5 kg/m<sup>2</sup> (+/- 0.5 kg/m<sup>2</sup>).</li> </ul>	
TU 2 - TREATMENT SPECIFICATION RATIONALE	
<p>Treatment activities will utilize a clearcut with Dispersed Retention silviculture system to be carried out using primarily mechanical treatment methods. Initial treatment phases will remove dead or otherwise hazardous overstory trees. The removal of live overstory and understory trees will reduce continuity between fuel strata and accommodate the recovery of treatment fibre and residues. Secondary treatment phases will mechanically (and potential manual methods), thin understory trees to reduce vertical and horizontal continuity to overstory retention. Final treatment phases will require surface fuel reductions to the specified targets by means of manual/mechanical piling. Treatment activities are expected to transition stands from a C-2 fuel type (Boreal Spruce *with MPB affected stands) to a C-6 (Conifer Plantation) and reduce surface fire intensities significantly.</p> <p>To reduce predicted fire behaviour the following treatment specifications apply:</p> <ul style="list-style-type: none"> <li>- Remove all dead overstory and understory trees except where the tree is to be retained to achieve biodiversity objectives or the tree has been identified as a wildlife habitat or cultural heritage feature.</li> <li>- Retain all live deciduous trees except where their removal is necessary to address a safety concern.</li> <li>- Retain 200 sph (±100 sph) of live L1 coniferous trees.</li> <li>- Retain up to 100 sph (±50 sph) of live L2 coniferous trees.</li> <li>- Recruitment between L1 and L2 conifers stocking is acceptable to a maximum total target conifer stocking of 450 sph (±100 sph).</li> <li>- Thinning from below to a height of 4.5 m is only required on residual coniferous trees where contiguous crown ratio of &gt;50% coverage exists.</li> <li>- Substitution of deciduous stems (where they exist) for coniferous stocking is acceptable.</li> <li>- Remove all L3 and L4 understory trees, (where they exist).</li> <li>- Reduce &lt;7.0 cm surface fuel loads to 0.5 kg/m<sup>2</sup> (+/- 0.25 kg/m<sup>2</sup>).</li> <li>- Reduce &gt;7.0 cm surface fuel loads to 2.5 kg/m<sup>2</sup> (+/- 0.5 kg/m<sup>2</sup>).</li> </ul>	

TU 1: STAND AND STOCK TABLE DATA									
Species and Diameter Class <sup>1</sup>	Crown Base Height Range (m)	Average Tree Height (m)	STEMS PER HECTARE (sph)			VOLUME PER HECTARE (m <sup>3</sup> /ha) <sup>2</sup>			Basal Area (m <sup>2</sup> )
			Existing	Cut	Leave	Existing	Cut	Leave	Existing
<b>Layer 1 (≥ 22.5 cm - 27.5 cm dbh)</b>									
Pl	-	-	0	0	0	0	0	0	0
Sx	3.6	24	43	43	0	21.7	21.7	0	2.1
Total Dead Potential			0	0	0	0	0	0	0
Total Live			43	43	0	21.7	21.7	0	2.1
Total All Species		24	43	43	0	21.7	21.7	0	2.1
Total Conifers		24	43	43	0	21.7	21.7	0	2.1
<b>Layer 1 (≥ 17.5cm - 22.5 cm dbh)</b>									
Pl	-	20	199	199	0	38.4	38.4	0	7.3
Sx	3.4	20	196	196	0	47.0	47.0	0	6.4
Total Dead Potential			199	199	0	38.4	38.4	0	7.3
Total Live			196	196	0	47.0	47.0	0	6.4
Total All Species		20	395	395	0	85.4	85.4	0	13.7
Total Conifers		20	395	395	0	85.4	85.4	0	13.7
<b>Layer 1 (≥ 12.5 cm - 17.5 cm dbh)</b>									
Pl	-	16	573	573	0	34.7	34.7	0	9.8
Total Dead Potential			573	573	0	34.7	34.7	0	9.8
Total Live			0	0	0	0	0	0	0
Total All Species		16	573	573	0	34.7	34.7	0	9.8
Total Conifers		16	573	573	0	34.7	34.7	0	9.8
<b>TOTALS: Layer 1</b>									
<b>Total Layer 1 - All Species (Conifers Only)</b>	<b>3.5</b>	<b>20</b>	<b>1,011</b>	<b>1,011</b>	<b>0</b>	<b>141.8</b>	<b>141.8</b>	<b>0</b>	<b>25.6</b>

TU 1: SURFACE FUEL LOADING (kg/m <sup>2</sup> )					
Size Class (cm)	Existing (kg/m <sup>2</sup> )	Existing Distribution	Target (kg/m <sup>2</sup> )	Target Distribution	Methodology Used
Fine Woody Debris (</=7cm)	1.0	Moderately continuous distribution with accumulations associated with suspended and jackpotted lodgepole pine.	0.5 kg/m <sup>2</sup> (+/- 0.25 kg/m <sup>2</sup> )	Reduce to target levels with an acceptable range of ±0.25 kg/m <sup>2</sup> . Maintain poor continuity between residual pieces and avoid creating aggregations.	Line Intersect Sampling Method
Large Diameter Woody Debris (>7cm – 20cm)	3.93	Continuous distribution of lodgepole pine damaged by mountain pine beetle as well as some hybrid spruce damaged by wind. Pieces typically have a decay class of 2.	2.5 kg/m <sup>2</sup> (+/- 0.5 kg/m <sup>2</sup> )	Reduce below target levels with an acceptable range of ±0.5 kg/m <sup>2</sup> . Ensure poor continuity between retained pieces and avoid creating aggregations.	
Coarse Woody Debris (CWD) (>20cm)	5.04				
<b>Crown Closure (%): 22</b>	<b>Existing Total: 9.96 kg/m<sup>2</sup></b>		<b>Target: 3.0 kg/m<sup>2</sup> (+/- 0.75 kg/m<sup>2</sup>)</b>		

<sup>1</sup> Modify diameter classes as required to suite treatment.

<sup>2</sup> A professional estimate is required for any merchantable cutting

TU 2: STAND AND STOCK TABLE DATA									
Species and Diameter Class <sup>3</sup>	Crown Base Height Range (m)	Average Tree Height (m)	STEMS PER HECTARE (sph)			VOLUME PER HECTARE (m <sup>3</sup> /ha) <sup>4</sup>			Basal Area (m <sup>2</sup> )
			Existing	Cut	Leave	Existing	Cut	Leave	Existing
<b>Layer 1 (≥ 12.5 cm dbh)</b>									
Pl	-	18	772	772	0	73.1	73.1	0	17.1
Sx	3.5	22	239	39	200	68.7	11.2	57.5	8.5
Total Dead Potential			772	772	0	73.1	73.1	0	17.1
Total Live			239	39	200	68.7	11.2	57.5	8.5
Total All Species		20	1,011	811	200	141.8	84.3	57.5	25.6
Total Conifers		20	1,011	811	200	141.8	84.3	57.5	25.6
<b>Layer 2 (≥ 7.5cm - 12.5 cm dbh)</b>									
Sx	1.3	7.1	72	0	72	1.4	0	1.4	4.2
Total Dead Potential			0	0	0	0	0	0	0
Total Live			72	0	72	1.4	0	1.4	4.2
Total All Species		7.1	72	0	72	1.4	0	1.4	4.2
Total Conifers		7.1	72	0	72	1.4	0	1.4	4.2
<b>Layer 3 (≥1.3 m ht. - 7.5 cm)</b>									
Sx	0.5	4.5	270	270	0	-	-	-	-
Total Dead Potential			0	0	0	-	-	-	-
Total Live			270	270	0	-	-	-	-
Total All Species		4.5	270	270	0	-	-	-	-
Total Conifers		4.5	270	270	0	-	-	-	-
<b>Layer 4 (&lt; 1.3 m height)</b>									
Sx	0.1	0.4	220	220	0	-	-	-	-
Total All Species		0.4	220	220	0	-	-	-	-
Total Conifers		0.4	220	220	0	-	-	-	-

TU 2: SURFACE FUEL LOADING (kg/m <sup>2</sup> )					
Size Class (cm)	Existing (kg/m <sup>2</sup> )	Existing Distribution	Target (kg/m <sup>2</sup> )	Target Distribution	Methodology Used
Fine Woody Debris (</=7cm)	0.90	Moderately continuous distribution with accumulations associated with suspended and jackpotted lodgepole pine.	0.5 kg/m <sup>2</sup> (+/- 0.25 kg/m <sup>2</sup> )	Reduce to target levels with an acceptable range of ±0.25 kg/m <sup>2</sup> . Maintain poor continuity between residual pieces and avoid creating aggregations.	Line Intersect Sampling Method
Large Diameter Woody Debris (>7cm – 20cm)	4.89	Moderately continuous distribution of lodgepole pine damaged by mountain pine beetle as well as some hybrid spruce damaged by wind. Pieces typically have a decay class of 2.	2.5 kg/m <sup>2</sup> (+/- 0.5 kg/m <sup>2</sup> )	Reduce below target levels with an acceptable range of ±0.5 kg/m <sup>2</sup> . Ensure poor continuity between retained pieces and avoid creating aggregations.	
Coarse Woody Debris (CWD) (>20cm)	1.82				
<b>Crown Closure (%): 24</b>		<b>Existing Total: 5.79 kg/m<sup>2</sup></b>	<b>Target: 3.0 kg/m<sup>2</sup> (+/- 0.75 kg/m<sup>2</sup>)</b>		

<sup>3</sup> Modify diameter classes as required to suite treatment.

<sup>4</sup> A professional estimate is required for any merchantable cutting

BIODIVERSITY AND FOREST HEALTH CONSIDERATIONS AND TARGETS	
COARSE WOODY DEBRIS (CWD) RETENTION TARGET – Distribution	Using the May 2022 Chief Forester’s Guidance on Coarse Woody Debris Management on Wildfire Mitigation Treatments, the recommendation is to leave 5 CWD pieces per hectare in the SBS dk.
WILDLIFE TREE RETENTION TARGET	Retain up to 10 sph of large diameter (>30 cm dbh) dead potential stems as wildlife snags. Retain one (1) patch (20 x 20 m) of suitable secondary stand structure per hectare for wildlife habitat. Retention patches must be allocated so as to maintain discontinuity to adjacent stands, be anchored around deciduous and dead potential tree retention where practicable, and contain 400-600 sph of healthy poles and/or saplings (where they exist) with good form and vigour. Retain three (3) to five (5) high stumps (>1.0 m) per hectare adjacent to retention patches to ensure they do not incur damage as a result of skidding/yarding activities.
FOREST HEALTH- Should include sections such as agent, affected species, incidence rating, mortality, and targets	Stands have been assessed to be in poor condition due to the impacts of forest health factors. Lodgepole pine overstory trees exhibited high mortality (51.6%) as a result of historical mountain pine beetle infestation. Significant wind damage (39%) has occurred where dead lodgepole pine have succumb to wind and snow loads and have transitioned to the forest floor. Additionally, windthrow contributions from residual stand components are anticipated to increase as stand condition continues to decline and stand density decreases. Evidence of emerging mountain pine beetle infestation was not noted. <b>WINDTHROW RISK EVALUATION</b> Windthrow assessments indicate the proposed treatment activities will result in a moderate potential for future windthrow risk due to topographic location due to prevailing wind directions. Wind damage is common in stands that have been impacted insect occurrences mainly from historical mountain pine beetle infestations.

I. TREATMENT DESCRIPTION
MERCHANTABLE TIMBER CUTTING
ROADS, LANDINGS AND TRAILS: Access to the units will be gained via Keefe’s Landing Road and existing Spur Roads and FSR’s adjacent to the block. Proposed access associated with the treatment areas will include two (2) road permit sections and three (3) on-block spur roads. One road permit section will commence off the Fish Lake FSR to access WRR-11 and one that will come off an old existing block road at approximately 4.0km on the Keefe’s Landing Road. <b>All additional access structures required to accommodate the prescribed treatment activities, or otherwise necessitated by site conditions or to address a safety concern, must be approved by an authorized treatment supervisor.</b>
FELLING: Felling activities will employ mechanical falling equipment (i.e. feller-bunchers, harvesters). If or where any hand felling activities are used, they must be carried out by Fallers certified to the BC Faller Training Standard (BCFTS) with the skills and experience to achieve the treatment specifications without damaging residual stand components.
YARDING/SKIDDING: Conventional ground-based primary transport equipment (i.e. rubber-tired skidders, forwarders, etc.) will be utilized to carry out skidding/yarding activities. If rubber-tired skidders are utilized, retain high stumps (<1.0 m in height) adjacent to retained trees to prevent retention from incurring damage as a result of yarding and skidding activities.
LOADING AND HAULING: Loading activities will be carried out within the right of way of proposed access structures and any required landings. Hauling activities will be carried out using an appropriate logging truck configuration for the harvest systems employed and processing facility requirements.

**SLASH DISPOSAL:**

Treatment residues and existing downed woody material in excess of prescribed >7.0 cm targets will be brought to road right of ways to facilitate biomass utilization where practicable. Material should be marketed to local processing facilities where a biomass fibre recovery opportunity exists. Where a biomass recovery opportunity does not exist alternative markets/users should be explored, or the material should be piled and burned on site.

The quantity and distribution of biomass resulting from initial mechanical treatment phases will vary with the harvest systems used. Roadside processing may improve biomass recovery opportunities relative to processing at the stump, especially where selection systems have been proposed. Processing at the stump, while improving other objectives, will result in increased dispersed fuel loads and increase the requirement for fire hazard abatement activities.

**STRATEGIES TO IMPROVE BIOMASS UTILIZATION:**

- Aggregate treatment residues, unutilized dead and down material, and bucking waste within utilization requirements for biomass facilities within road right of ways.
- Avoid incorporating mineral soil and other contaminants into piles.

**STAND MODIFICATION TREATMENTS**

**BRUSHING:** Manual brushing treatments have not been prescribed.

**PRUNING:** Pruning treatments have not been prescribed.

**THINNING:** Thinning from below to a height of 4.5 m is only required on residual coniferous trees where contiguous crown ratio of >50% coverage exists.

**DEBRIS PILING:**

Un-utilized biomass – including treatment residues and residual downed woody material – in excess of prescribed surface fuel load reduction targets outside of right of ways will be aggregated into debris piles. Debris piles must be a minimum of ½ the height of the pile’s base width with taller piles being preferred. Surface fuels with a decay class of 4 or 5 do not contribute to surface fuel load calculations and may be retained on site.

**STRATEGIES FOR DEBRIS PILING:**

- Carry out debris piling activities in snow free conditions.
- Construct piles in locations that prevent retention from incurring heat damage and crown scorching during pile burning activities (i.e. within natural openings).
- Ensure piles contain a mix of material sizes and decay classes to facilitate effective ignition and complete combustion.
- Avoid incorporating mineral soil and other non-combustible debris into piles.

**PILE BURNING:**

Burning activities must be carried out in compliance with the Wildfire Act and its Regulation as well as the Environmental Management Act (EMA); namely the Open Burning and Smoke Control Regulation (OBSCR).

The treatment area is within a Medium Smoke Sensitivity Zone (SSZ) as indicated by Smoke Sensitivity Zone map #38 – Nechako River (93F). All open burning activities within the Keefe’s Landing WRR area are subject to the requirements of section 9, 10, 11, 13, 14, and 15 of OBSCR. However, the FTU falls under a plan for community wildfire risk reduction – the Nadina South Side Wildfire Risk Reduction Tactical Plan – and therefore may be carried out in accordance with section 23 of OBSCR where open burning activities are anticipated to last less than one (1) day, or under the conditions outlined in an approval issued under section 15 of the EMA.

No Private residences or business buildings have been identified <150 m of the treatment area

If pile burning activities will be carried out in a manner that meets the definition of a Category 3 Open Fire, as defined by the Wildfire Regulation, a Burn Registration Number (BRN) will be required. A BRN can be obtained from BCWS by calling 1-888-797-1717 or emailing hpr.1800@gov.bc.ca.

**STRATEGIES FOR PILE BURNING:**

- Ensure all piled debris is dry and seasoned as per the definition provided by the OBSCR.
- Obtain custom venting forecasts to identify optimal burning opportunities.
- Consider the utilization of an Air Curtain Burner.

**MULCHING:** Mulching treatments have not been prescribed.

**MASTICATION:** Mastication treatments have not been prescribed.

**GRINDING:**

In the event that debris can sold to a biomass facility, it is likely that a grinding unit will come directly to the site to prepare the debris into the exact specifications to be shipped via a chip transport truck. If this phase is planned to occur, ensure that road access is maintained to all debris piles locations.

<b>PRESCRIBED FIRE:</b> Prescribe Fire treatments have not been prescribed.
<b>PLANTING:</b> Fire Management Stocking Standards are not provided in the Agreement Holders current approved FSP and therefore an amendment to the Chinook CFA FSP 2016 stocking standards is being proposed. It is recommended that the Wildfire Risk Reduction stocking standard be requested for all Chinook CFA Wildfire Risk Reduction project areas as these standards are in line with the <i>BCWS Fuel Management Prescription Guidance 2022</i> .
<b>OTHER:</b> N/A
<b>AUTHORIZATION AND TIMBER TENURE</b>
<b>FRPA Section 52(1)(b):</b> The Agreement Holder (CFA:K4R) maintains the timber rights for all merchantable timber harvested as a result of treatment implementation unless relinquished by the CFA holder and authorized by FPRPA Section 52 (1) (b).
<b>Forestry License to Cut (FLTC):</b> Not anticipated.
<b>Park Use Permit:</b> N/A
<b>Road Permit or Road Use Permit:</b> Two new Sections for R21201 will be applied for with this Prescription area.
<b>Other (i.e. local government, utilities, etc.):</b> N/A

<b>J. POST TREATMENT</b>
<b>EXPECTED VEGETATION RESPONSE:</b> Treatment activities are anticipated to result in a moderate vegetative response. Increases to shrub and herbaceous cover and the ingress of various grasses is expected throughout the treatment areas. The establishment of coniferous regeneration is expected to be variable, although site disturbance associated with treatment activities has the potential to promote root suckering where trembling aspen stand components exist.
<b>ADDITIONAL TREATMENTS OR MAINTENANCE:</b> Where clearcut systems have been employed, carry out stand monitoring at an interval that aligns with the required silvicultural assessments. The results of silviculture assessments will inform the mid to long term requirement for maintenance.
<b>SILVICULTURE OBLIGATIONS:</b> Do silvicultural obligations apply to the treatment area? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>PLANTING:</b> Is planting a treatment identified in this prescription or required as a legislative obligation? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> In SU 1 (both TU 1 and TU 2) an even-aged stocking standard has been applied as is shown in the table below.

<b>STOCKING STANDARDS:</b>													
APPLICABLE EVEN-AGED STOCKING STANDARDS for all variations of Clearcut Silviculture Systems:													
TU	SU	Stocking Standard ID	Species (Pref.)	Species (Accep.)	Well-Spaced Stem/ha				Minimum Height (m)			Regen Delay	Free Growing (years)
					TSS	MSS		MITD	PI	Others	RTH (%)		
						Pref. & Acc.	Pref.						
1 / 2	1	TBD	PLI SX FDI LW AT EP AC	-	1200	700	600	2.0	2.0	1.0	-	4	20

<b>K. Outstanding Works</b>
1.) Obtain the appropriate authorizations for the FRPA Section 52(1)(b) and for the new sections required to R21201 road permit.
2.) Obtain District Manager approval for the proposed alternative stocking standards, or upon the approval of the Chinook CFA:K4R FSP adopt the applicable fire management stocking standards if appropriate.
3.) If required, obtain the appropriate approval(s) – under section 15 of the EMA – to exempt pile burning activities from the requirements of sections 9, 10, 11, 13, 14 and 15 and Part 3 of OBSCR.
4.) Obtain the appropriate authorizations or exemptions for those portions of the treatment area that are within a Priority Deferral Area identified by the Old Growth Strategic Review and the Old Growth Technical Advisory Panel.

<b>L. ADMINISTRATION</b>	
<b>PREPARATION</b>	
FOREST PROFESSIONAL NAME ( <i>Printed</i> ): Jennifer Hill, RPF	FOREST PROFESSIONAL SIGNATURE: 
MEMBER NUMBER: 3889	DATE: 2023-02-02

<b>M. ATTACHMENTS</b>			
MAPS:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	FIELD DATA CARDS:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
WUI WTA Plots and Photos:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	CRUISE DATA:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
AIR PHOTOS/IMAGERY:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	BURN PLAN:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
MODELING/DATA ANALYSIS:	Yes <input type="checkbox"/> No <input type="checkbox"/>	OTHER: <a href="#">Migratory Bird Nest Ranking Spreadsheet</a>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
		OTHER: <a href="#">WTA Worksheets</a>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
SURFACE FUEL LOADING DATA:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
TERRAIN STABILITY ASSESSMENT	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	VISUAL IMPACT ASSESSMENT	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Completed By:		Completed By:	
Date:		Date:	
ARCHAEOLOGY IMPACT ASSESSMENT Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		BIOLOGIST ASSESSMENT Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Completed By:		Completed By:	
Date:		Date:	
ADDITIONAL COMMENTS: MAPS: The following maps have been provided to support the prescribed activities: <ul style="list-style-type: none"> <li>• Prescription Map</li> <li>• Ortho Treatment Map</li> <li>• Location Map</li> </ul>			

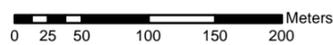


# K4R / FESBC Wildfire Risk Reduction Prescription Map # 4

Nadina Natural Resource District  
 Northwest Fire Centre- Nadina Zone  
 FMTU-Keefe's Landing Rd  
 CFA-K4R  
 93F.081  
 Field Work By: Jennifer Hill  
 Map Produced By Loretta Johnson  
 Date: November 29, 2022

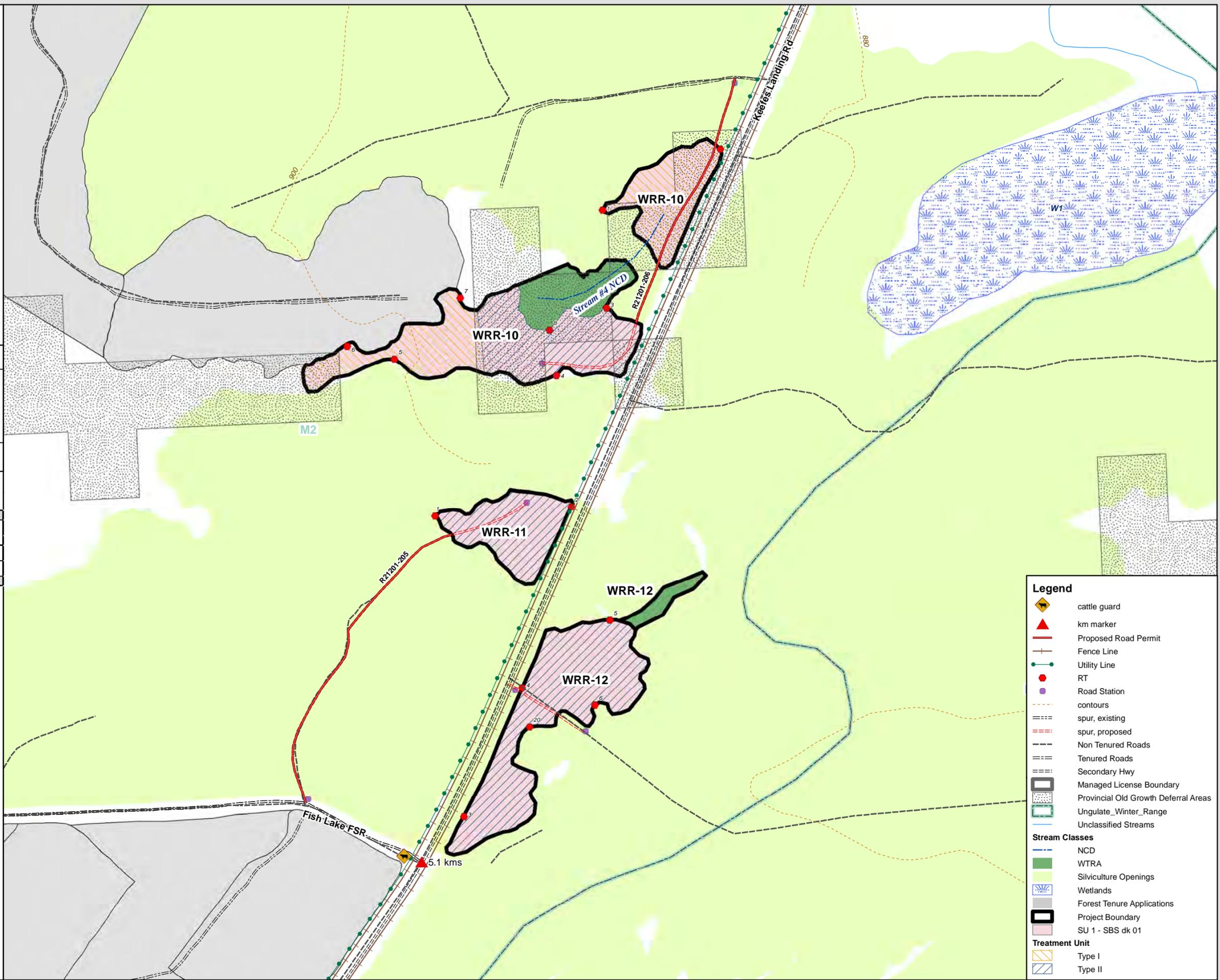
Block	WTRA	TU-1	TU-2	GROSS Ha
WWR-10	1.0	3.0	2.1	6.1
WRR-11	0.0	0.0	1.5	1.5
WWR-12	0.3	0.0	3.3	3.6
<b>Totals</b>	<b>1.3</b>	<b>3.0</b>	<b>6.9</b>	<b>11.2</b>

TREATMENT UNIT (TU) SUMMARY							
TU	SU	NET AREA (ha)	GROSS AREA (ha)	LEAVE AREAS (ha)	NP (ha)	NAR (ha)	TREATMENT REGIME
1	1	3.0	3.0	0	0	3.0	CCRES / HARV / SFR / Mechanical Debris Pile & Burn
2	1	6.9	8.2	1.3	0	6.9	CCDRET / HARV / SFR / Mechanical Debris Pile & Burn
<b>TOTALS</b>		<b>9.9</b>	<b>11.2</b>	<b>1.3</b>	<b>0</b>	<b>9.9</b>	



1:5,000

Free Growing Forestry Ltd.  
 PO Box 510, 135 1st Ave, Burns Lake, BC V0J 1E0  
 Phone (250) 692-3443 Fax (250) 692-3464  
 Email: loretta.johnson@freegrowing.ca



**Legend**

- cattle guard
- km marker
- Proposed Road Permit
- Fence Line
- Utility Line
- RT
- Road Station
- contours
- spur, existing
- spur, proposed
- Non Tenured Roads
- Tenured Roads
- Secondary Hwy
- Managed License Boundary
- Provincial Old Growth Deferral Areas
- Ungulate Winter Range
- Unclassified Streams

**Stream Classes**

- NCD
- WTRA
- Silviculture Openings
- Wetlands
- Forest Tenure Applications
- Project Boundary
- SU 1 - SBS dk 01

**Treatment Unit**

- Type I
- Type II

**Rx 4 – Ground Fuels Photo:**



**Rx 4 – Ladder Fuels Photo:**



**Rx 4 – Crown Photo:**



<b>A. PROJECT IDENTIFICATION</b>	
<b>PROJECT ID AND UNIT ID:</b> <b>K4R/FESBC Wildfire Risk Reduction – Prescription #5</b> Keefe’s Landing Road, 6.0 km Original WRR Shapes #13	<b>LAND OR TENURE HOLDER:</b> Chinook Community Forest Tenure K4R (CFA:K4R)
<b>LATITUDE/LONGITUDE:</b> 53° 53’ 11” N, 125° 56’ 48” W	<b>GEOGRAPHIC DESCRIPTION:</b> Keefe’s Landing Road, 6.0 km
<b>HIGHER-LEVEL PLAN(s):</b> Lakes District Land and Resource Management Plan – 2000 Lakes South Sustainable Resource Management Plan – 2003	<b>MAP REFERENCE NUMBER:</b> 93F 081

<b>B. FUEL TREATMENT PROJECT DESCRIPTION</b>			
<b>OBJECTIVE:</b>	<input checked="" type="checkbox"/> Public Safety	<input checked="" type="checkbox"/> Range Improvement	<input checked="" type="checkbox"/> Ecosystem Restoration
	<input type="checkbox"/> Recreation	<input type="checkbox"/> Wildlife Habitat	<input type="checkbox"/> Other:
<p>Prescription Area #5 – Wildfire Risk Reduction (WRR) treatment area is at 6.0km on the Keefe’s Landing Road on the south side of François Lake. This unit is entirely within the Chinook Community Forest (CFA:K4R) tenure area, and has been identified as a high priority corridor by the British Columbia Wildfire Service (BCWS) Wildfire Risk Reduction (WRR) Tactical Plan.</p> <p>The unit is within the François Lake Wildland Urban Interface (WUI) Risk Class (RC) polygon which has been assigned a risk class rating of 2 due to the prevalence of High Value Resources and Assets (HVRAs) namely the infrastructure and community values along the Eakin Settlement Road. The Provincial Strategic Threat Analysis (PSTA) has classified stands within the unit as having a Final Threat Rating (FTR) of high (7) to extreme (9). This rating considers the anticipated head fire intensities and spotting impacts for the fuel types present as well as historical fire densities. Initial spread index (ISI) roses generated by the Grassy Plains Hub (161) fire weather station indicate that prevailing winds during the core fire season are typically from the southwest.</p> <p>The objectives of this Prescription are to:</p> <ul style="list-style-type: none"> <li>• reduce the risk of wildfire to public safety by modifying forest fuels within wildland urban interface (WUI) areas – specifically the properties, residences, and infrastructure near Keefe’s Landing Road.</li> <li>• reduce the risk of wildfire to public safety by modifying fuels adjacent to critical evacuation corridors – specifically those along the Eakin Settlement Road network.</li> <li>• reduce the risk of wildfire to critical infrastructure and property by modifying forest fuels adjacent to, or likely to influence forest fuels adjacent to, identified values at risk.</li> <li>• develop ecologically appropriate and effective wildfire risk reduction solutions that give due regard to overlapping land management objectives and tenure obligations.</li> <li>• develop ecologically appropriate and effective wildfire risk reduction solutions that give due regard to site and stand conditions to maintain forest health and site productivity.</li> <li>• create defensible space for wildland fire fighters to anchor suppression strategies and tactics from during incident response by removing or modifying hazardous forest fuels in a way that improves firefighter safety and reduces fire behaviour potential.</li> </ul>			

<b>STRATEGIES:</b>	Wildfire risk reduction objectives will be achieved through the application of treatment regimes designed to address site and stand specific conditions. Treatments will reduce fire behaviour potential through the modification or removal of hazardous forest fuels as well as through reductions to surface fuel load contributions from downed woody material and treatment residues. Stand modifications are intended to reduce fire intensities and reduce continuity between forest fuels, and therefore reduce the potential for the propagation and persistence of crown fire as well as the potential for spotting. Treatment intensities increase with the level of hazard identified as well as in response to anticipated operational limitations. The prescribed treatment activities balance WRR objectives with established land use objectives and existing tenure obligations to reduce the risk of wildfire to public safety, promote natural processes and maintain ecosystem function, as well as to reduce open burning requirements through the utilization of biomass.
<b>METHODS:</b>	The proposed operational treatment for this Prescription area will be a Clearcut with reserves Silviculture System since these proposed areas requires significant stand modification to address the hazardous stand conditions. The stand condition is poor in this area due to the impacts of historical insect infestations and subsequent wind events. This area will provide moderate to marginal commercial fibre recovery opportunities. Initial stand entries require an overstory removal phase utilizing conventional ground-based harvest methods. Final treatment phases require surface fuel load reductions to dead and down material and treatment residues by mechanical and potentially manual surface fuel reductions to existing downed woody materials and treatment residues to ensure surface fuel load targets are achieved. Surface fuel reduction targets are intended to reduce surface fire intensities to a level below critical surface fire intensity thresholds (<2000 kW/m) under 90th percentile fire weather conditions as well as to comply with provincial fuel hazard abatement requirements. Treatment area design and specifications have been developed with consideration of the influence of topography.

<b>C. TREATMENT UNIT (TU) SUMMARY</b>						
TU	NET AREA (ha)	GROSS AREA (ha)	LEAVE AREAS (ha)	NP (ha)	NAR (ha)	SILVICULTURE SYSTEM AND TREATMENT REGIME (i.e. PRUNE THIN, PILE BURN, BROAD, CHAUL, ETC.)
1	0.7	1.9	1.2	0	0.7	CCRES / HARV / SFR / Mechanical Debris Pile & Burn
<b>TOTALS</b>	<b>0.7</b>	<b>1.9</b>	<b>1.2</b>	<b>0</b>	<b>0.7</b>	

<b>D. SITE CHARACTERISTICS</b>							
TU	<u>CFBPS FUEL TYPE</u>	TIMBER TYPE	BGC SUBZONE, VARIANT & SITE ASSOC.	ELEVATION RANGE (m)	SLOPE POSITION	SLOPE RANGE (%)	ASPECT
1	C2	MATURE Coniferous	SBS dk 01	890 – 898	Middle	2-6	South
<b>FUEL TYPE DETERMINATION</b>		C2 – Boreal Black and White Spruce *(the C2 fuel type is used for representing mountain pine beetle (MPB) affected stands).					

<b>E. SOIL CHARACTERISTICS</b>							
TU	SOIL TEXTURE	DUFF DEPTH (cm)	COARSE FRAGMENTS (%)	SOIL DISTURBANCE LIMIT (%)	SOIL HARZARD RATING		
					Compaction	Erosion	Displacement
1	SL	4	50	10	M	M	L

<b>F. VALUES – FOREST AND RANGE PRACTICES ACT</b>				
<b>RIPARIAN &amp; LAKESHORE AREAS</b> - 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>		There are no riparian features associated with this prescription area. Riparian features that occur within the Chinook Community Forest Agreement (CFA) tenure area have been managed in accordance with section 6.5.2 of the approved Chinook CFA Forest Stewardship Plan (FSP) 2016 and are otherwise compliant with the requirements of section 47 to 51, 52(2), and 53 of the FPPR.	
<b>RIPARIAN MANAGEMENT AREAS (RMAs)</b> - FPPR sections 51 and 52				
STREAM, LAKE, WETLAND ID	CLASS	RRZ (m)	RMZ (m)	SPECIFICATIONS FOR RIPARIAN OR LAKESHORE MANAGEMENT AREAS
n/a				
<b>TEMPERATURE SENSITIVE STREAMS</b> - 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>		Treatment activities have not been prescribed in areas that contain, are adjacent to, or are a direct tributary to an identified temperature sensitive stream.	
<b>ROAD CONSTRUCTION IN RIPARIAN MANAGEMENT AREAS</b> - FPPR section 50				
Is road construction proposed in riparian management areas within the treatment area or an associated road permit (RP)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Road construction activities have not been proposed within the RMA of any identified riparian feature.	
<b>STREAM CROSSINGS</b> - 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>		There are no stream crossings associated with this prescription.	
<b>MAINTAINING STREAM BANK AND CHANNEL STABILITY ON S4, S5, and S6 STREAMS</b> - 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>		Treatment activities have not been prescribed within the RMZ of an S4, S5, or S6 stream that is a direct tributary to an S1, S2, or S3 stream, and therefore the basal area retention requirements for maintaining stream bank and channel stability provided by section 52 of the FPPR do not apply.	
<b>DOMESTIC WATER LICENCES</b> (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 <input type="checkbox"/> No <input checked="" type="checkbox"/>		The treatment area does not include water sources that are diverted for human consumption by a licensed waterworks.	

<b>LICENCED WATER WORKS</b> (inside or outside of a community watershed) - FPPR section 60				
Does the proposed treatment include areas that are within 100m of a licensed waterworks?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment and road construction activities have not been proposed within 100 m of a licensed waterworks that is within a community watershed.		
<b>FISHERIES SENSITIVE WATERSHED</b> - GAR section 14, FPPR section 8.1				
Are any activities proposed within a fisheries sensitive watershed?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed within a fisheries sensitive watershed.		
<b>COMMUNITY WATERSHED</b> - 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed within a community watershed.		
Will this project require road construction or deactivation within a community watershed?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment and road construction activities have not been proposed within a community watershed.		
<b>WATERSHED ASSESSMENT CONSIDERATIONS</b> - FRPA section 180 areas with "significant watershed sensitivity"				
Does the proposed treatment area include areas that have watershed assessment considerations?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed in areas identified as having significant watershed sensitivity or other watershed assessment considerations.		
<b>SOIL DISTURBANCE AND PERMANENT ACCESS STRUCTURES</b> - FPPR sections 35 and 36				
Treatment Unit (TU)	Proposed Max. Allowable Soil Disturbance (5% or 10%) 10%	Proposed Max. Soil Disturbance for Roadside Work Areas 25%	Proposed Max. Permanent Access Structures 5%	Comments
1				The proposed access road is within the R/W and not within the block..
Do the proposed Permanent Access Structures exceed 7% of the total area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Permanent access structures will not exceed 7%.		
<b>LANDSLIDES AND TERRAIN STABILITY</b> - FPPR section 37				
Does the proposed treatment area include areas where terrain stability is a concern?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Indicators of slope instability or landslides were not noted within the treatment area.		
<b>SUITABLE SECONDARY STRUCTURE</b> - FPPR section 43.1				
Does the proposed treatment area include a "targeted pine leading stand"?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed in a "targeted pine leading stand" as defined by section 1 of the FPPR. Additionally, the treatment activities proposed will occur entirely within a community forest agreement (CFA) license for the purpose of wildfire risk reduction and therefore, as per section 43.1(4) and 43.1(2) of the FPPR, the secondary stand structure retention specifications set out by section 43.1(1) of the FPPR do not apply.		
<b>UNGULATE WINTER RANGE</b> - GAR section 12, FRPA sections 180 and 181, FPPR section 69				
Does the proposed treatment area include areas within an Ungulate Winter Range?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Treatment activities have been proposed in a Special Resource Management Sub-Zone 4 with identified M2 ungulate winter habitat for Moose. Prior to the commencement of treatment activities the Agreement Holder, will ensure that the habitat requirements for the winter survival of ungulate species specified by s.6.4.2 of the FSP are maintained.		

<b>WILDLIFE HABITAT AREA - GAR section 10, FRPA sections 180 and 181, FPPR section 69</b>		
Does the proposed treatment area include any wildlife habitat areas (WHA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area does not overlap any mapped or otherwise identified wildlife habitat areas.
<b>MIGRATORY BIRD CONVENTION ACT – 1994</b>		
Does the proposed treatment have the potential to impact migratory bird habitat?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The nest density ranking for this Prescription area is 2 and therefore is not likely to impact Migratory Bird Habitat.
<b>OBJECTIVES SET BY GOVERNMENT FOR WILDLIFE - FPPR section 7</b>		
Does the proposed treatment area include areas to which objectives for wildlife under FPPR section 7 apply?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	A legal order establishing objectives set by government for wildlife has not been enacted in the Lakes district and objectives are not specified in the Lakes LRMP or the Lakes South SRMP. Two notices, enabled under section 7(2) of the FPPR, specifying indicators of the amount, distribution and attributes of wildlife habitat required for the winter survival of ungulate species as well as for the survival of species at risk exist for the Lakes and Nadina districts, respectively.
<b>OBJECTIVES SET BY GOVERNMENT FOR BIODIVERSITY OBJECTIVES (Landscape Level) - FPPR Part 4 Division 5</b>		
Does the proposed treatment area include areas to which objectives for landscape level biodiversity under FPPR section 9 apply?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	The design of the proposed Wildfire Risk Reduction areas will resemble, both spatially and temporally, the patterns of natural disturbance that occur within the landscape.
<b>OBJECTIVES SET BY GOVERNMENT FOR BIODIVERSITY OBJECTIVES (Stand Level) - FPPR Part 4 Division 5</b>		
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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	One external Wildlife Tree Patch areas amounting to 1.2ha (63.2%) has been identified with this plan.
<b>RECREATION FEATURES - FRPA section 56 and 149, FPPR section 70</b>		
Does the proposed treatment area contain interpretive sites, recreation trails, recreation sites, recreation facilities that are of significant recreation value and are designated a resource feature?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area does not contain known interpretive sites, recreation trails, recreation sites, recreation facilities that are considered to be of significant recreation value and are designated a resource feature.
<b>VISUAL QUALITY OBJECTIVES - GAR section 7, FRPA sections 180 and 181, FPPR section 9.2</b>		
Is the proposed treatment within a scenic area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	WRR-13 is not within a Scenic area, nor a VQO – Retention polygon.

<b>ARCHAEOLOGICAL RESOURCES/CULTURAL HERITAGE RESOURCES - FPPR section 10</b>		
<p>Are there any known archaeological sites or cultural heritage resources that are important to First Nations within the proposed area?</p> <p>No Referral to Land Manager is required if proposed TU is on the applicant's own First Nation Land.</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>The proposed block does not overlap into CHR High Archeological Polygon, and no archaeological sites or cultural heritage resources that were identified within the proposed treatment areas.</p> <p>In the event that additional CHR features are identified or otherwise made known during First Nation information sharing and consultation, measures to protect the CHR or address First Nation concerns must be communicated by an addendum to, or an amendment of, this prescription.</p> <p>In the event that previously unidentified CHR features are encountered while carrying out treatment activities, work in the area must stop, and an authorized treatment supervisor must be notified. The Agreement Holder will complete a cultural heritage resource evaluation (CHR) and provide management direction to protect or otherwise manage for the identified feature(s).</p>
<b>INVASIVE PLANTS - FRPA section 47 and FPPR section 17</b>		
<p>Is the introduction and spread of invasive plants likely as a result of the proposed treatment?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>Review of the Invasive Alien Plant Program (IAPP) database indicated the presence of invasive plant species adjacent to the FTU along the Eakin Settlement Road. IAPP sites include Orange Hawkweed (OH), Meadow Buttercup (MB), Oxeye Daisy (OD), Scentless Chamomile (SH), Common Tansy (TC), and Yellow Hawkweed (YH).</p>
<b>NATURAL RANGE BARRIERS - FRPA section 48, FPPR section 18</b>		
<p>Are there natural range barriers within the proposed treatment area that are likely to be removed or rendered ineffective?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>A fenceline is already in place along the southeast boundary of this block. In the event that fencelines are damaged, they will be repaired to the pre-damaged condition.</p>
<b>SPECIES AT RISK – FPPA section 7</b>		
<p>Are there species at risk present within the boundaries of the prescribed treatment area?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>No known occurrences of a species at risk were noted during field assessments or through review of BC Conservation Data Centre spatial data.</p>
<b>LAND USE OBJECTIVES (Higher Level Plans and objectives set by Government under the <i>Land Act</i>)</b>		
<p>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?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>WRR-13 overlaps into the Landscape Corridor (LC) identified within the Lakes South Sustainable Management Plan by 10%. Overlaps into LC do not exceed the documented limits and prescribed activities are not expected to conflict with other land use objectives not specifically addressed by this prescription.</p>
<p>Do the proposed activities conflict with land use objectives (higher level plans or objectives under the <i>Land Act</i>)?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Prescribed activities are not expected to conflict with other land use objectives not specifically addressed by this prescription.</p>
<p>Known and potential species at risk, windthrow hazard, old growth management areas (OGMA)?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Treatment activities do not overlap into any OGMAs established by the Lakes South SRMP.</p>
<p>Do the proposed activities conflict with Provincial Priority Deferral Areas (PROV. DEF) identified by the Old Growth Strategic Review?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Proposed harvest area WRR-13 does not overlap into the newly designated PROV. DEF.</p>

<b>G. OTHER CONSIDERATIONS AND REQUIREMENTS</b>		
<b>CONSULTATION – FIRST NATIONS:</b> Info-share was initiated on April 22, 2022 and Adequacy Letter is called: 10455-50/22 K4R WRR IS1 and is dated July 04, 2022		
<b>FIRST NATION</b>	<b>CONCERNS IDENTIFIED AND MEASURES TO ADDRESS</b>	
Nee Tahi Buhn Band	No concerns brought forward.	
Skin Tyee Nation	No concerns brought forward.	
Stellat'en First Nation	No concerns brought forward.	
Wet'suwet'en First Nation	No concerns brought forward.	
Office of the Wet'sewet'en	No concerns brought forward.	
First Nations consultation complete?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<b>CONSULTATION – GENERAL, EXISTING TENURE HOLDERS (Forest, Range, Guide Outfitters, Trappers):</b> Info-share was initiated for existing Tenure Holders on April 22, 2022.		
<b>Tenure Holder</b>	<b>Concerns?</b>	<b>Measures proposed to address licensee's concerns</b>
Range: George Amendt	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Carl Doglione	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Sharon Robertson	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Ootsa Lake Cattle Company	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Victor Bateson	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Jonathan Solecki	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Jack Burt	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Clint Lambert	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Elizabeth McEntire	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Harold Moroski	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T014	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T017	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T018	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T019	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T020	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Guide Outfitter: James Lancaster	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Guide Outfitter: Brett Hall	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Guide Outfitter: Gary Blackwell	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
<b>PRIVATE PROPERTY</b>		
Does private property border the proposed treatment area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	There is no private land immediately adjacent to WRR-13.
<b>SMOKE MANAGEMENT</b>		
Does a smoke management plan beyond OBSCR exist for the proposed treatment area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area is within a Medium Smoke Sensitivity Zone and therefore the <i>August 2021 Community Wildfire Risk Reduction Open Burning Smoke Control Regulations</i> will be followed for the burning of debris piles.
<b>SAFETY</b>		
Have any specific safety concerns been identified in or adjacent to the proposed treatment area?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	The level of blowdown within these proposed treatment areas are very high. Cattle are no longer able to use this area as it is completely impassable.

<b>UTILITIES</b>		
Are utilities located in or adjacent to the proposed treatment area? i.e. power lines, gas lines, etc.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	The proposed shape is adjacent to utility lines which are along the Keefe's Landing Road.
<b>ACCESS CONTROL</b>		
Are there any foreseen issues with access and access control during and post treatment?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	There are no foreseen access issues for access to the proposed Wildfire Risk Reduction shape in this Prescription.
<b>TRAFFIC CONTROL</b>		
Is traffic control required at any point during operations?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	There is no need for traffic control on this shapes because timber will be felled into the block, and there is a minimum of a tree length right of way cleared between the blocks and the Keefe's Landing Road.
<b>OTHER (E.g Public Notification)</b>		
Notification of commencement of harvesting activities should be posted on Chinook Community Forest's Facebook Page.		

<b>H. STAND AND STOCK TABLE</b>
<p>Is merchantable timber cutting prescribed? If yes, please provide details below.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>About 71% percent of the treatment unit contains merchantable timber. The intent of this project is to recover as much fibre as possible from these proposed areas. The appropriate tenure authorization method will be applied for once timber purchase agreements have been arranged.</p>
<p>Are there any challenges to utilizing merchantable material? If yes, please provide details below.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>There is extensive blowdown, dead standing and ladder fuels throughout the Prescription area. Much of the volume that is down on the ground and overlapping has been dead and down for many years now. The hope is that the merchantable stems can be separated out efficiently and effectively from the stems that cannot to aid in a seamless flow of merchantable timber from the Prescription area. Because this is a very small block, debris may be left on site for a small period of time so that community members may come and load out the material for firewood. Any debris that remains after that period of time ends will be burnt.</p>

TREATMENT SPECIFICATIONS SUMMARY	
TU 1	TREE REMOVAL/RETENTION STRATEGY BY SIZE/SPECIES (Summarize specifications identified in table above)
1	<p><i>Silviculture Systems:</i> Clearcut with Reserve (CCRES)</p> <p><i>Treatment Regimes:</i> Conventional Harvest (HARV), Hazard Tree Removal (HTR), Surface Fuel Reduction (SFR), Mechanical Pile and Burn (PILE BURN)</p>

TREATMENT SPECIFICATION RATIONALE
<p>Treatment activities will utilize a clearcut with reserve silviculture system and primarily requires the use of mechanical treatment methods. Initial treatment phases will remove remnant hazardous overstory fuels consisting of 138.5 m<sup>3</sup>/ha hybrid spruce and lodgepole pine – approximately 59.9% of this volume is dead potential lodgepole pine. Secondary treatment phases will require surface fuel reductions to the specified targets by means of mainly mechanical methods, with the possibility of manual treatment methods. Treatment activities are expected to transition stands from a C-2 fuel type (Boreal Spruce *with MPB affected stands) to a C-6 (Conifer Plantation) and reduce surface fire intensities significantly. Post treatment fire intensities will be dependant on the availability of an appropriate fire management stocking standard and subsequent stand tending activities.</p> <p>To reduce predicted fire behaviour the following treatment specifications have been applied:</p> <ul style="list-style-type: none"> <li>- Retain all live deciduous trees except where their removal is necessary to address a safety concern.</li> <li>- Remove all live and dead overstory and understory coniferous trees unless the tree is to be retained to achieve biodiversity objectives or the tree has been identified as a wildlife habitat or cultural heritage feature.</li> <li>- Reduce &lt;7.0 cm surface fuel loads to 0.5 kg/m<sup>2</sup> (+/- 0.25 kg/m<sup>2</sup>).</li> <li>- Reduce &gt;7.0 cm surface fuel loads to 2.5 kg/m<sup>2</sup> (+/- 0.5 kg/m<sup>2</sup>).</li> </ul>

TU 1: STAND AND STOCK TABLE DATA									
Species and Diameter Class <sup>1</sup>	Crown Base Height Range (m)	Average Tree Height (m)	STEMS PER HECTARE (sph)			VOLUME PER HECTARE (m <sup>3</sup> /ha) <sup>2</sup>			Basal Area (m <sup>2</sup> )
			Existing	Cut	Leave	Existing	Cut	Leave	Existing
<b>Layer 1 (≥ 22.5 cm - 27.5 cm dbh)</b>									
Pl	-	23	173	173	0	59.4	59.4	0	10.5
Sx	4.7	23	257	257	0	101.3	101.3	0	14.0
Total Dead Potential			234	234	0	88.4	88.4	0	14.0
Total Live			196	196	0	76.3	76.3	0	10.5
Total All Species		23	430	430	0	164.7	164.7	0	24.5
Total Conifers		23	430	430	0	164.7	164.7	0	24.5
<b>Layer 1 (≥ 17.5cm - 22.5 cm dbh)</b>									
Pl	-	18	351	351	0	54.1	54.1	0	10.5
Sx	3.7	18	92	92	0	16.1	16.1	0	3.5
Total Dead Potential			351	351	0	54.1	54.1	0	10.5
Total Live			92	92	0	16.1	16.1	0	3.5
Total All Species		18	443	443	0	70.2	70.2	0	14.0
Total Conifers		18	443	443	0	70.2	70.2	0	14.0
<b>TOTALS: Layer 1</b>									
<b>Total Layer 1 - All Species</b>	<b>4.2</b>	<b>20</b>	<b>873</b>	<b>873</b>	<b>0</b>	<b>234.9</b>	<b>234.9</b>	<b>0</b>	<b>38.5</b>
Total Layer - Conifers Only	4.2	20	873	873	0	234.9	234.9	0	38.5

<sup>1</sup> Modify diameter classes as required to suite treatment.

<sup>2</sup> A professional estimate is required for any merchantable cutting

SURFACE FUEL LOADING (kg/m <sup>2</sup> )					
Size Class (cm)	Existing (kg/m <sup>2</sup> )	Existing Distribution	Target (kg/m <sup>2</sup> )	Target Distribution	Methodology Used
Fine Woody Debris (</=7cm)	0.73	Moderately continuous distribution with accumulations associated with suspended and jackpotted lodgepole pine.	0.5 kg/m <sup>2</sup> (+/- 0.25 kg/m <sup>2</sup> )	Reduce to target levels with an acceptable range of ±0.25 kg/m <sup>2</sup> . Maintain poor continuity between residual pieces and avoid creating aggregations.	Line Intersect Sampling Method
Large Diameter Woody Debris (>7cm – 20cm)	3.80	Continuous distribution of lodgepole pine damaged by mountain pine beetle as well as some hybrid spruce damaged by wind. Pieces typically have a decay class of 2 to 3.	2.5 kg/m <sup>2</sup> (+/- 0.5 kg/m <sup>2</sup> )	Reduce below target levels with an acceptable range of ±0.5 kg/m <sup>2</sup> . Ensure poor continuity between retained pieces and avoid creating aggregations.	
Coarse Woody Debris (CWD) (20cm+)	5.16				
Crown Closure (%): 21	Existing Total: 9.69 kg/m <sup>2</sup>		Target: 3.0 kg/m <sup>2</sup> (+/- 0.75 kg/m <sup>2</sup> )		

BIODIVERSITY AND FOREST HEALTH CONSIDERATIONS AND TARGETS	
COARSE WOODY DEBRIS (CWD) RETENTION TARGET – Distribution	Using the <i>May 2022 Chief Forester’s Guidance on Coarse Woody Debris Management on Wildfire Mitigation Treatments</i> , the recommendation is to leave 5 CWD pieces per hectare in the SBS dk.
WILDLIFE TREE RETENTION TARGET	Retain up to 10 sph of large diameter (>30 cm dbh) dead potential stems as wildlife snags. Retain one (1) patch (20 x 20 m) of suitable secondary stand structure per hectare for wildlife habitat. Retention patches must be allocated so as to maintain discontinuity to adjacent stands, be anchored around deciduous and dead potential tree retention where practicable, and contain 400-600 sph of healthy poles and/or saplings (where they exist) with good form and vigour. Retain three (3) to five (5) high stumps (>1.0 m) per hectare adjacent to retention patches to ensure they do not incur damage as a result of skidding/yarding activities.
FOREST HEALTH- Should include sections such as agent, affected species, incidence rating, mortality, and targets	Stands have been assessed to be in poor condition due to the impacts of forest health factors. Lodgepole pine overstory trees exhibited high mortality (>60%) as a result of historical mountain pine beetle infestation. Significant wind damage has occurred where dead lodgepole pine have succumb to wind and snow loads and have transitioned to the forest floor. Additionally, windthrow contributions from residual stand components are anticipated to increase as stand condition continues to decline and stand density decreases. Evidence of incipient mountain pine beetle infestation was not noted. <b>WINDTHROW RISK EVALUATION</b> Windthrow assessments indicate the proposed treatment activities will result in a moderate potential for future windthrow risk due to topographic location due to prevailing wind directions. Wind damage is common in stands that have been impacted insect occurrences mainly from historical mountain pine beetle infestations, yet also due to root rot.

I. TREATMENT DESCRIPTION
<p><b>MERCHANTABLE TIMBER CUTTING</b></p>
<p><b>ROADS, LANDINGS AND TRAILS:</b>            Access to the unit will be gained via Keefe’s Landing Road, using an old existing block road at approximately 5.8km. Proposed access associated with the treatment area will include one (1) new road permit section.</p> <p><b>All additional access structure required to accommodate the prescribed treatment activities, or otherwise necessitated by site conditions or to address a safety concern, must be approved by an authorized treatment supervisor.</b></p>
<p><b>FELLING:</b>            Felling activities will employ mechanical falling equipment (i.e. feller-bunchers, harvesters).            If or where any hand felling activities are used, they must be carried out by Fallers certified to the BC Faller Training Standard (BCFTS) with the skills and experience to achieve the treatment specifications without damaging residual stand components.</p>
<p><b>YARDING/SKIDDING:</b>            Conventional ground-based primary transport equipment (i.e. rubber-tired skidders, forwarders, etc.) will be utilized to carry out skidding/yarding activities. If rubber-tired skidders are utilized, retain high stumps (&lt;1.0 m in height) adjacent to retained trees to prevent retention from incurring damage as a result of yarding and skidding activities.</p>
<p><b>LOADING AND HAULING:</b>            Loading activities will be carried out within the right of way of proposed access structures and any required landings. Hauling activities will be carried out using an appropriate logging truck configuration for the harvest systems employed and processing facility requirements.</p>
<p><b>SLASH DISPOSAL:</b>            Treatment residues and existing downed woody material in excess of prescribed &gt;7.0 cm targets will be brought to road right of ways to facilitate biomass utilization where practicable. Material should be marketed to local processing facilities where a biomass fibre recovery opportunity exists. Where a biomass recovery opportunity does not exist alternative markets/users should be explored, or the material should be piled and burned on site.</p> <p>The quantity and distribution of biomass resulting from initial mechanical treatment phases will vary with the harvest systems used. Roadside processing may improve biomass recovery opportunities relative to processing at the stump, especially where selection systems have been proposed. Processing at the stump, while improving other objectives, will result in increased dispersed fuel loads and increase the requirement for fire hazard abatement activities.</p> <p><b>STRATEGIES TO IMPROVE BIOMASS UTILIZATION:</b></p> <ul style="list-style-type: none"> <li>- Aggregate treatment residues, unutilized dead and down material, and bucking waste within utilization requirements for biomass facilities within road right of ways.</li> <li>- Avoid incorporating mineral soil and other contaminants into piles.</li> </ul>
<p><b>STAND MODIFICATION TREATMENTS</b></p>
<p><b>BRUSHING:</b> Manual brushing treatments have not been prescribed.</p>
<p><b>PRUNING:</b> Pruning treatments have not been prescribed.</p>
<p><b>THINNING:</b> Thinning treatments have not been prescribed.</p>
<p><b>DEBRIS PILING:</b>            Un-utilized biomass – including treatment residues and residual downed woody material – in excess of prescribed surface fuel load reduction targets outside of right of ways will be aggregated into debris piles. Debris piles must be a minimum of ½ the height of the pile’s base width with taller piles being preferred. Surface fuels with a decay class of 4 or 5 do not contribute to surface fuel load calculations and may be retained on site.</p> <p><b>STRATEGIES FOR DEBRIS PILING:</b></p> <ul style="list-style-type: none"> <li>- Carry out debris piling activities in snow free conditions.</li> <li>- Construct piles in locations that prevent retention from incurring heat damage and crown scorching during pile burning activities (i.e. within natural openings).</li> <li>- Ensure piles contain a mix of material sizes and decay classes to facilitate effective ignition and complete combustion.</li> <li>- Avoid incorporating mineral soil and other non-combustible debris into piles.</li> </ul>

<p><b>PILE BURNING:</b></p> <p>Burning activities must be carried out in compliance with the Wildfire Act and its Regulation as well as the Environmental Management Act (EMA); namely the Open Burning and Smoke Control Regulation (OBSCR).</p> <p>The treatment area is within a Medium Smoke Sensitivity Zone (SSZ) as indicated by Smoke Sensitivity Zone map #38 – Nechako River (93F). All open burning activities within the Eakin Settlement area are subject to the requirements of section 9, 10, 11, 13, 14, and 15 of OBSCR. However, the FTU falls under a plan for community wildfire risk reduction – the Nadina South Side Wildfire Risk Reduction Tactical Plan – and therefore may be carried out in accordance with section 23 of OBSCR where open burning activities are anticipated to last less than one (1) day, or under the conditions outlined in an approval issued under section 15 of the EMA.</p> <p>No private residences or business buildings have been identified &lt;150 m of the treatment area.</p> <p>If pile burning activities will be carried out in a manner that meets the definition of a Category 3 Open Fire, as defined by the Wildfire Regulation, a Burn Registration Number (BRN) will be required. A BRN can be obtained from BCWS by calling 1-888-797-1717 or emailing hpr.1800@gov.bc.ca.</p> <p><b>STRATEGIES FOR PILE BURNING:</b></p> <ul style="list-style-type: none"> <li>- Ensure all piled debris is dry and seasoned as per the definition provided by the OBSCR.</li> <li>- Obtain custom venting forecasts to identify optimal burning opportunities.</li> <li>- Consider the utilization of an Air Curtain Burner.</li> </ul>
<p><b>MULCHING:</b> Mulching treatments have not been prescribed.</p>
<p><b>MASTICATION:</b> Mastication treatments have not been prescribed.</p>
<p><b>GRINDING:</b></p> <p>In the event that debris can sold to a biomass facility, it is likely that a grinding unit will come directly to the site to prepare the debris into the exact specifications to be shipped via a chip transport truck. If this phase is planned to occur, ensure that road access is maintained to all debris pile locations.</p>
<p><b>PRESCRIBED FIRE:</b> Prescribe Fire treatments have not been prescribed.</p>
<p><b>PLANTING:</b></p> <p>Fire Management Stocking Standards are not provided in the Agreement Holders current approved FSP and therefore an amendment to the Chinook CFA FSP 2016 stocking standards is being proposed as is shown in the Stocking Standard Table below. It is recommended that the Wildfire Risk Reduction stocking standard be requested for all Chinook CFA Wildfire Risk Reduction project areas as these standards are in line with the <i>BCWS Fuel Management Prescription Guidance 2022</i>.</p>
<p><b>OTHER:</b> N/A</p>
<p><b>AUTHORIZATION AND TIMBER TENURE</b></p>
<p><b>FRPA Section 52 (1) (b):</b></p> <p>The Agreement Holder (CFA:K4R) maintains the timber rights for all merchantable timber harvested as a result of treatment implementation unless relinquished by the CFA holder and authorized by FPRA Section 52 (1) (b).</p>
<p><b>Forestry License to Cut (FLTC):</b> Not anticipated.</p>
<p><b>Park Use Permit:</b> N/A</p>
<p><b>Road Permit or Road Use Permit:</b> One new Section for R21201 will be applied for with this Prescription area.</p>
<p><b>Other (i.e. local government, utilities, etc.):</b> n/a</p>

<b>J. POST TREATMENT</b>
<p><b>EXPECTED VEGETATION RESPONSE:</b>            Treatment activities are anticipated to result in a moderate vegetative response. Increases to shrub and herbaceous cover and the ingress of various grasses is expected throughout the treatment areas. The establishment of coniferous regeneration is expected to be variable, although site disturbance associated with treatment activities has the potential to promote root suckering where trembling aspen stand components exist.</p>
<p><b>ADDITIONAL TREATMENTS OR MAINTENANCE:</b>            Where clearcut systems have been employed, carry out stand monitoring at an interval that aligns with the required silvicultural assessments. The results of silviculture assessments will inform the mid to long term requirement for maintenance.</p>
<p><b>SILVICULTURE OBLIGATIONS:</b> Do silvicultural obligations apply to the treatment area? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p><b>PLANTING:</b> Is planting a treatment identified in this prescription or required as a legislative obligation? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>            In SU 1 an even-aged stocking standard has been applied using the table below.</p>

<b>STOCKING STANDARDS:</b>													
<b>APPLICABLE EVEN-AGED STOCKING STANDARDS:</b>													
TU	SU	Stocking Standard ID	Species (Pref.)	Species (Accep.)	Well-Spaced Stem/ha				Minimum Height (m)			Regen Delay	Free Growing (years)
					TSS	MSS		MITD	PI	Others	RTH (%)		
						Pref. & Acc.	Pref.						
1	1	TBD	PLI SX FDI LW AT EP AC	-	1200	700	600	2.0	2.0	1.0	-	4	20

K. Outstanding Works	
1.) Obtain the appropriate authorizations for the FRPA Section 52(1)(b) and for the new section required to R21201 road permit.	
2.) Obtain District Manager approval for the proposed alternative stocking standards, or upon the approval of the Chinook CFA:K4R FSP adopt the applicable fire management stocking standards if appropriate.	
3.) If required, obtain the appropriate approval(s) – under section 15 of the EMA – to exempt pile burning activities from the requirements of sections 9, 10, 11, 13, 14 and 15 and Part 3 of OBSCR.	
4.) Obtain the appropriate authorizations or exemptions for those portions of the treatment area that are within a Priority Deferral Area identified by the Old Growth Strategic Review and the Old Growth Technical Advisory Panel.	
L. ADMINISTRATION	
PREPARATION	
FOREST PROFESSIONAL NAME ( <i>Printed</i> ): Jennifer Hill, RPF	FOREST PROFESSIONAL SIGNATURE: 
MEMBER NUMBER: 3889	DATE: 2023-02-02
M. ATTACHMENTS	
MAPS: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	FIELD DATA CARDS: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
WUI WTA Plots and Photos: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	CRUISE DATA: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
AIR PHOTOS/IMAGERY: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	BURN PLAN: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
MODELING/DATA ANALYSIS: Yes <input type="checkbox"/> No <input type="checkbox"/>	OTHER: Yes <input type="checkbox"/> No <input type="checkbox"/>
SURFACE FUEL LOADING DATA: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
TERRAIN STABILITY ASSESSMENT: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	VISUAL IMPACT ASSESSMENT: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Completed By: Date:	Completed By: Date:
ARCHAEOLOGY IMPACT ASSESSMENT Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	BIOLOGIST ASSESSMENT Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Completed By: Date:	Completed By: Date:
ADDITIONAL COMMENTS: MAPS: The following maps have been provided to support the prescribed activities: • Prescription Map • Ortho Treatment Map • Location Map	

**K4R / FESBC Wildfire  
Risk Reduction  
Prescription Map # 5**

Nadina Natural Resource District  
Northwest Fire Centre- Nadina Zone  
FMTU-Keefe's Landing Rd  
CFA-K4R  
93F.081  
Field Work By: Jennifer Hill  
Map Produced By Loretta Johnson  
Date: November 29, 2022

Block	WTRA	TU-1	TU-2	GROSS Ha
WWR-13	1.2	0.7	0.0	1.9

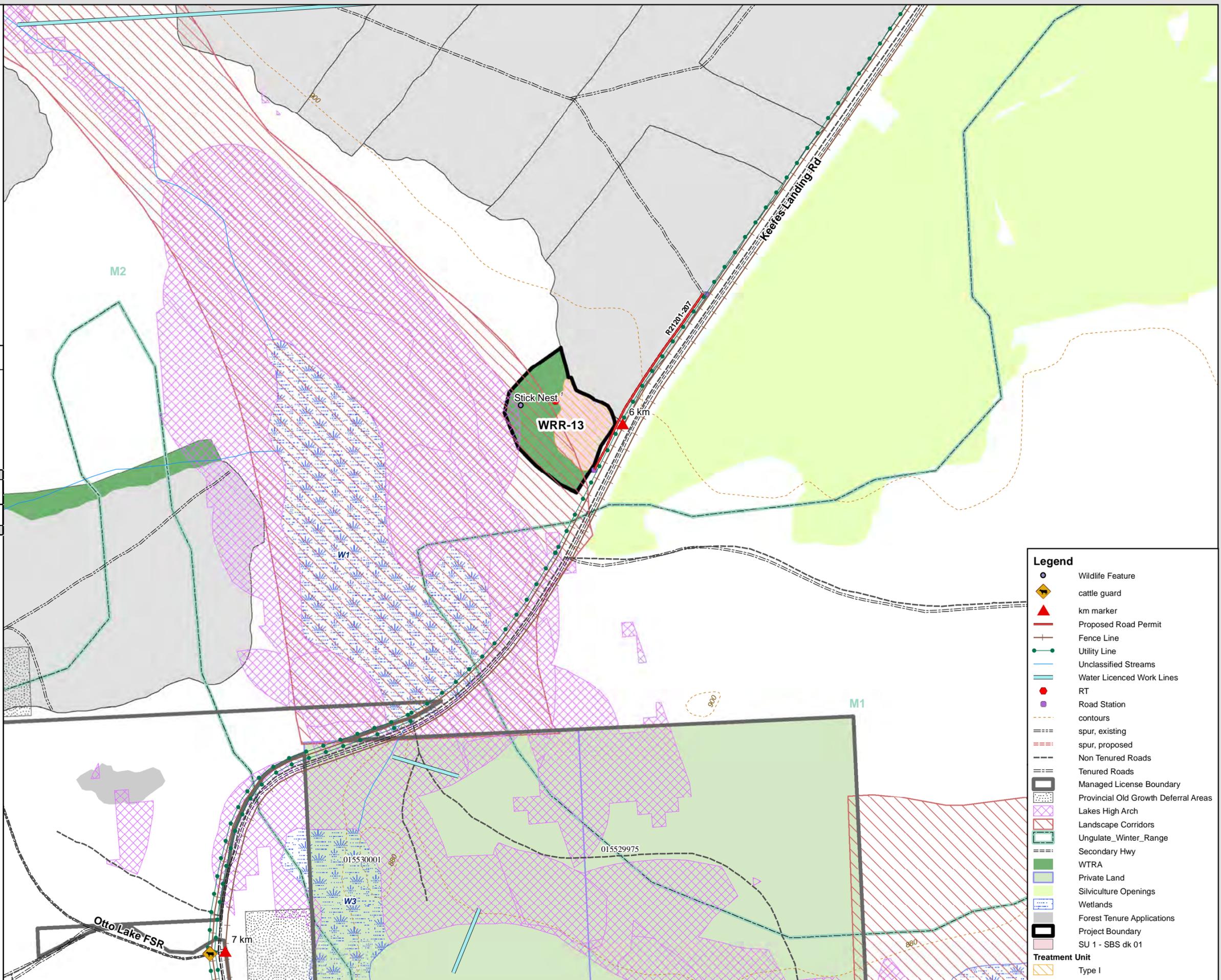
TREATMENT UNIT (TU) SUMMARY							
TU	SU	NET AREA (ha)	GROSS AREA (ha)	LEAVE AREAS (ha)	NP (ha)	NAR (ha)	TREATMENT REGIME
1	1	0.7	1.9	1.2	0	0.7	CCRES / HARV / SFR / Mechanical Debris Pile & Burn
TOTALS		0.7	1.9	1.2	0	0.7	



0 25 50 100 150 200 Meters

1:5,000

Free Growing Forestry Ltd. **Free Growing Forestry Ltd.**  
PO Box 510, 135 1st Ave, Burns Lake, BC V0J 1E0  
Phone (250) 692-3443 Fax (250) 692-3464  
Email: loretta.johnson@freegrowing.ca



**Legend**

- Wildlife Feature
- cattle guard
- km marker
- Proposed Road Permit
- Fence Line
- Utility Line
- Unclassified Streams
- Water Licenced Work Lines
- RT
- Road Station
- contours
- spur, existing
- spur, proposed
- Non Tenured Roads
- Tenured Roads
- Managed License Boundary
- Provincial Old Growth Deferral Areas
- Lakes High Arch
- Landscape Corridors
- Ungulate Winter Range
- Secondary Hwy
- WTRA
- Private Land
- Silviculture Openings
- Wetlands
- Forest Tenure Applications
- Project Boundary
- SU 1 - SBS dk 01
- Treatment Unit**
- Type I

**Rx 5 – Ground Fuel Photo:**



**Rx 5 – Ladder Fuels Photo:**



**Rx 5 – Crown Photo:**



<b>A. PROJECT IDENTIFICATION</b>	
<b>PROJECT ID AND UNIT ID:</b> <b>K4R/FESBC Wildfire Risk Reduction – Prescription #6</b> Keefe’s Landing Road, 8.2 km Original WRR Shapes #14	<b>LAND OR TENURE HOLDER:</b> Chinook Community Forest Tenure K4R (CFA:K4R)
<b>LATITUDE/LONGITUDE:</b> 53° 52’ 24” N, 125° 57’ 29” W	<b>GEOGRAPHIC DESCRIPTION:</b> Keefe’s Landing Road, 8.2 km
<b>HIGHER-LEVEL PLAN(s):</b> Lakes District Land and Resource Management Plan – 2000 Lakes South Sustainable Resource Management Plan – 2003	<b>MAP REFERENCE NUMBER:</b> 93F 081

<b>B. FUEL TREATMENT PROJECT DESCRIPTION</b>			
<b>OBJECTIVE:</b>	<input checked="" type="checkbox"/> Public Safety	<input checked="" type="checkbox"/> Range Improvement	<input checked="" type="checkbox"/> Ecosystem Restoration
	<input type="checkbox"/> Recreation	<input type="checkbox"/> Wildlife Habitat	<input type="checkbox"/> Other:
<p>Prescription Area #6 – Wildfire Risk Reduction (WRR) treatment area is at 8.2 km on the Keefe’s Landing Road on the south side of François Lake. This unit is entirely within the Chinook Community Forest (CFA:K4R) tenure area, and has been identified as a high priority corridor by the British Columbia Wildfire Service (BCWS) Wildfire Risk Reduction (WRR) Tactical Plan.</p> <p>The unit is within the François Lake Wildland Urban Interface (WUI) Risk Class (RC) polygon which has been assigned a risk class rating of 2 due to the prevalence of High Value Resources and Assets (HVRAs) namely the infrastructure and community values along the Eakin Settlement Road. The Provincial Strategic Threat Analysis (PSTA) has classified stands within the unit as having a Final Threat Rating (FTR) of high (7) to extreme (9). This rating considers the anticipated head fire intensities and spotting impacts for the fuel types present as well as historical fire densities. Initial spread index (ISI) roses generated by the Grassy Plains Hub (161) fire weather station indicate that prevailing winds during the core fire season are typically from the southwest.</p> <p>The objectives of this Prescription are to:</p> <ul style="list-style-type: none"> <li>• reduce the risk of wildfire to public safety by modifying forest fuels within wildland urban interface (WUI) areas – specifically the properties, residences, and infrastructure near Keefe’s Landing Road.</li> <li>• reduce the risk of wildfire to public safety by modifying fuels adjacent to critical evacuation corridors – specifically those along the Eakin Settlement Road network.</li> <li>• reduce the risk of wildfire to critical infrastructure and property by modifying forest fuels adjacent to, or likely to influence forest fuels adjacent to, identified values at risk.</li> <li>• develop ecologically appropriate and effective wildfire risk reduction solutions that give due regard to overlapping land management objectives and tenure obligations.</li> <li>• develop ecologically appropriate and effective wildfire risk reduction solutions that give due regard to site and stand conditions to maintain forest health and site productivity.</li> <li>• create defensible space for wildland fire fighters to anchor suppression strategies and tactics from during incident response by removing or modifying hazardous forest fuels in a way that improves firefighter safety and reduces fire behaviour potential.</li> </ul>			

<b>STRATEGIES:</b>	Wildfire risk reduction objectives will be achieved through the application of treatment regimes designed to address site and stand specific conditions. Treatments will reduce fire behaviour potential through the modification or removal of hazardous forest fuels as well as through reductions to surface fuel load contributions from downed woody material and treatment residues. Stand modifications are intended to reduce fire intensities and reduce continuity between forest fuels, and therefore reduce the potential for the propagation and persistence of crown fire as well as the potential for spotting. Treatment intensities increase with the level of hazard identified as well as in response to anticipated operational limitations. The prescribed treatment activities balance WRR objectives with established land use objectives and existing tenure obligations to reduce the risk of wildfire to public safety, promote natural processes and maintain ecosystem function, as well as to reduce open burning requirements through the utilization of biomass.
<b>METHODS:</b>	The proposed operational treatment for this Prescription area will be a Clearcut with reserves Silviculture System since these proposed areas requires significant stand modification to address the hazardous stand conditions. The stand condition is poor in this area due to the impacts of historical insect infestations and subsequent wind events. This area will provide moderate to marginal commercial fibre recovery opportunities. Initial stand entries require an overstory removal phase utilizing conventional ground-based harvest methods. Final treatment phases require surface fuel load reductions to dead and down material and treatment residues by mechanical and potentially manual surface fuel reductions to existing downed woody materials and treatment residues to ensure surface fuel load targets are achieved. Surface fuel reduction targets are intended to reduce surface fire intensities to a level below critical surface fire intensity thresholds (<2000 kW/m) under 90th percentile fire weather conditions as well as to comply with provincial fuel hazard abatement requirements. Treatment area design and specifications have been developed with consideration of the influence of topography.

<b>C. TREATMENT UNIT (TU) SUMMARY</b>						
TU	NET AREA (ha)	GROSS AREA (ha)	LEAVE AREAS (ha)	NP (ha)	NAR (ha)	SILVICULTURE SYSTEM AND TREATMENT REGIME (i.e. PRUNE THIN, PILE BURN, BROAD, CHAUL, ETC.)
1	0.8	1.8	1.0	0	0.8	CCRES / HARV / SFR / Mechanical Debris Pile & Burn
<b>TOTALS</b>	<b>0.8</b>	<b>1.8</b>	<b>1.0</b>	<b>0</b>	<b>0.8</b>	

<b>D. SITE CHARACTERISTICS</b>							
TU	<u>CFFBPS FUEL TYPE</u>	TIMBER TYPE	BGC SUBZONE, VARIANT & SITE ASSOC.	ELEVATION RANGE (m)	SLOPE POSITION	SLOPE RANGE (%)	ASPECT
1	C2	MATURE Coniferous	SBS dk 06	895 – 898	Middle	1 - 4	South
<b>FUEL TYPE DETERMINATION</b>		C2 – Boreal Black and White Spruce *(the C2 fuel type is used for representing mountain pine beetle (MPB) affected stands).					

<b>E. SOIL CHARACTERISTICS</b>							
TU	SOIL TEXTURE	DUFF DEPTH (cm)	COARSE FRAGMENTS (%)	SOIL DISTURBANCE LIMIT (%)	SOIL HARZARD RATING		
					Compaction	Erosion	Displacement
1	SL	5	45	10	M	M	L

<b>F. VALUES – FOREST AND RANGE PRACTICES ACT</b>				
<b>RIPARIAN &amp; LAKESHORE AREAS</b> - 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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	There is a W3 Wetland the east of the block. Riparian features that occur within the Chinook Community Forest Agreement (CFA) tenure area have been managed in accordance with section 6.5.2 of the approved Chinook CFA Forest Stewardship Plan (FSP) 2016 and are otherwise compliant with the requirements of section 47 to 51, 52(2), and 53 of the FPPR.		
<b>RIPARIAN MANAGEMENT AREAS (RMAs)</b> - FPPR sections 51 and 52				
STREAM, LAKE, WETLAND ID	CLASS	RRZ (m)	RMZ (m)	SPECIFICATIONS FOR RIPARIAN OR LAKESHORE MANAGEMENT AREAS
Wetland #2	W3	0	30	The block is within the RMZ of the W3 wetland by 5m, mainly due to an existing trail into block, which will be re-used with the salvaging of this permit.
<b>TEMPERATURE SENSITIVE STREAMS</b> - 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been prescribed in areas that contain, are adjacent to, or are a direct tributary to an identified temperature sensitive stream.		
<b>ROAD CONSTRUCTION IN RIPARIAN MANAGEMENT AREAS</b> - FPPR section 50				
Is road construction proposed in riparian management areas within the treatment area or an associated road permit (RP)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Road construction activities have not been proposed within the RMA of any identified riparian feature.		
<b>STREAM CROSSINGS</b> - 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	There are no stream crossings associated with this prescription.		
<b>MAINTAINING STREAM BANK AND CHANNEL STABILITY ON S4, S5, and S6 STREAMS</b> - 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been prescribed within the RMZ of an S4, S5, or S6 stream that is a direct tributary to an S1, S2, or S3 stream, and therefore the basal area retention requirements for maintaining stream bank and channel stability provided by section 52 of the FPPR do not apply.		
<b>DOMESTIC WATER LICENCES</b> (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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area does not include water sources that are diverted for human consumption by a licensed waterworks.		

<b>LICENCED WATER WORKS</b> (inside or outside of a community watershed) - FPPR section 60				
Does the proposed treatment include areas that are within 100m of a licensed waterworks?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment and road construction activities have not been proposed within 100 m of a licensed waterworks that is within a community watershed.		
<b>FISHERIES SENSITIVE WATERSHED</b> - GAR section 14, FPPR section 8.1				
Are any activities proposed within a fisheries sensitive watershed?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed within a fisheries sensitive watershed.		
<b>COMMUNITY WATERSHED</b> - 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed within a community watershed.		
Will this project require road construction or deactivation within a community watershed?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment and road construction activities have not been proposed within a community watershed.		
<b>WATERSHED ASSESSMENT CONSIDERATIONS</b> - FRPA section 180 areas with "significant watershed sensitivity"				
Does the proposed treatment area include areas that have watershed assessment considerations?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed in areas identified as having significant watershed sensitivity or other watershed assessment considerations.		
<b>SOIL DISTURBANCE AND PERMANENT ACCESS STRUCTURES</b> - FPPR sections 35 and 36				
Treatment Unit (TU)	Proposed Max. Allowable Soil Disturbance (5% or 10%)	Proposed Max. Soil Disturbance for Roadside Work Areas	Proposed Max. Permanent Access Structures	Comments
1	10%	25%	5%	The proposed access road is within the R/W of an existing trail and not within the block.
Do the proposed Permanent Access Structures exceed 7% of the total area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Permanent access structures will not exceed 7%.		
<b>LANDSLIDES AND TERRAIN STABILITY</b> - FPPR section 37				
Does the proposed treatment area include areas where terrain stability is a concern?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Indicators of slope instability or landslides were not noted within the treatment area.		
<b>SUITABLE SECONDARY STRUCTURE</b> - FPPR section 43.1				
Does the proposed treatment area include a "targeted pine leading stand"?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed in a "targeted pine leading stand" as defined by section 1 of the FPPR. Additionally, the treatment activities proposed will occur entirely within a community forest agreement (CFA) license for the purpose of wildfire risk reduction and therefore, as per section 43.1(4) and 43.1(2) of the FPPR, the secondary stand structure retention specifications set out by section 43.1(1) of the FPPR do not apply.		
<b>UNGULATE WINTER RANGE</b> - GAR section 12, FRPA sections 180 and 181, FPPR section 69				
Does the proposed treatment area include areas within an Ungulate Winter Range?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Treatment activities overlap by about 40% into a Special Resource Management Sub-Zone 4 with identified M2 ungulate winter habitat for Moose. Prior to the commencement of treatment activities the Agreement Holder, will ensure that the habitat requirements for the winter survival of ungulate species specified by s.6.4.2 of the FSP are maintained.		

<b>WILDLIFE HABITAT AREA - GAR section 10, FRPA sections 180 and 181, FPPR section 69</b>		
Does the proposed treatment area include any wildlife habitat areas (WHA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area does not overlap any mapped or otherwise identified wildlife habitat areas.
<b>MIGRATORY BIRD CONVENTION ACT – 1994</b>		
Does the proposed treatment have the potential to impact migratory bird habitat?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The nest density ranking for this Prescription area is 2 and therefore is not likely to impact Migratory Bird Habitat.
<b>OBJECTIVES SET BY GOVERNMENT FOR WILDLIFE - FPPR section 7</b>		
Does the proposed treatment area include areas to which objectives for wildlife under FPPR section 7 apply?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	A legal order establishing objectives set by government for wildlife has not been enacted in the Lakes district and objectives are not specified in the Lakes LRMP or the Lakes South SRMP. Two notices, enabled under section 7(2) of the FPPR, specifying indicators of the amount, distribution and attributes of wildlife habitat required for the winter survival of ungulate species as well as for the survival of species at risk exist for the Lakes and Nadina districts, respectively.
<b>OBJECTIVES SET BY GOVERNMENT FOR BIODIVERSITY OBJECTIVES (Landscape Level) - FPPR Part 4 Division 5</b>		
Does the proposed treatment area include areas to which objectives for landscape level biodiversity under FPPR section 9 apply?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	The design of the proposed Wildfire Risk Reduction areas will resemble, both spatially and temporally, the patterns of natural disturbance that occur within the landscape.
<b>OBJECTIVES SET BY GOVERNMENT FOR BIODIVERSITY OBJECTIVES (Stand Level) - FPPR Part 4 Division 5</b>		
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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	Two external Wildlife Tree Patch areas amounting to 1.0ha (55.6%) has been identified with this plan.
<b>RECREATION FEATURES - FRPA section 56 and 149, FPPR section 70</b>		
Does the proposed treatment area contain interpretive sites, recreation trails, recreation sites, recreation facilities that are of significant recreation value and are designated a resource feature?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area does not contain known interpretive sites, recreation trails, recreation sites, recreation facilities that are considered to be of significant recreation value and are designated a resource feature.
<b>VISUAL QUALITY OBJECTIVES - GAR section 7, FRPA sections 180 and 181, FPPR section 9.2</b>		
Is the proposed treatment within a scenic area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	WRR-14 is not within a Scenic area, nor a VQO – Retention polygon.

<b>ARCHAEOLOGICAL RESOURCES/CULTURAL HERITAGE RESOURCES - FPPR section 10</b>		
<p>Are there any known archaeological sites or cultural heritage resources that are important to First Nations within the proposed area?</p> <p>No Referral to Land Manager is required if proposed TU is on the applicant's own First Nation Land.</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>The proposed block does not overlap into CHR High Archeological Polygon, and no archaeological sites or cultural heritage resources that were identified within the proposed treatment areas.</p> <p>In the event that additional CHR features are identified or otherwise made known during First Nation information sharing and consultation, measures to protect the CHR or address First Nation concerns must be communicated by an addendum to, or an amendment of, this prescription.</p> <p>In the event that previously unidentified CHR features are encountered while carrying out treatment activities, work in the area must stop, and an authorized treatment supervisor must be notified. The Agreement Holder will complete a cultural heritage resource evaluation (CHR) and provide management direction to protect or otherwise manage for the identified feature(s).</p>
<b>INVASIVE PLANTS - FRPA section 47 and FPPR section 17</b>		
<p>Is the introduction and spread of invasive plants likely as a result of the proposed treatment?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>Review of the Invasive Alien Plant Program (IAPP) database indicated the presence of invasive plant species adjacent to the FTU along the Eakin Settlement Road. IAPP sites include Orange Hawkweed (OH), Meadow Buttercup (MB), Oxeye Daisy (OD), Scentless Chamomile (SH), Common Tansy (TC), and Yellow Hawkweed (YH).</p>
<b>NATURAL RANGE BARRIERS - FRPA section 48, FPPR section 18</b>		
<p>Are there natural range barriers within the proposed treatment area that are likely to be removed or rendered ineffective?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>A fenceline is already in place along the northwest boundary of this block. In the event that fencelines are damaged, they will be repaired to the pre-damaged condition.</p>
<b>SPECIES AT RISK – FPPA section 7</b>		
<p>Are there species at risk present within the boundaries of the prescribed treatment area?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>No known occurrences of a species at risk were noted during field assessments or through review of BC Conservation Data Centre spatial data.</p>
<b>LAND USE OBJECTIVES (Higher Level Plans and objectives set by Government under the <i>Land Act</i>)</b>		
<p>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?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>WRR-14 overlaps into the Landscape Corridor (LC) identified within the Lakes South Sustainable Management Plan by 5%. Overlaps into LC do not exceed the documented limits and prescribed activities are not expected to conflict with other land use objectives not specifically addressed by this prescription.</p>
<p>Do the proposed activities conflict with land use objectives (higher level plans or objectives under the <i>Land Act</i>)?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Prescribed activities are not expected to conflict with other land use objectives not specifically addressed by this prescription.</p>
<p>Known and potential species at risk, windthrow hazard, old growth management areas (OGMA)?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Treatment activities do not overlap into any OGMAs established by the Lakes South SRMP.</p>
<p>Do the proposed activities conflict with Provincial Priority Deferral Areas (PROV. DEF) identified by the Old Growth Strategic Review?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Proposed harvest area WRR-14 overlaps by 100% into the newly designated PROV. DEF.</p>

<b>G. OTHER CONSIDERATIONS AND REQUIREMENTS</b>		
<b>CONSULTATION – FIRST NATIONS:</b> Info-share was initiated on April 22, 2022 and Adequacy Letter is called: 10455-50/22 K4R WRR IS1 and is dated July 04, 2022		
FIRST NATION	CONCERNS IDENTIFIED AND MEASURES TO ADDRESS	
Nee Tahi Buhn Band	No concerns brought forward.	
Skin Tyee Nation	No concerns brought forward.	
Stellat'en First Nation	No concerns brought forward.	
Wet'suwet'en First Nation	No concerns brought forward.	
Office of the Wet'sewet'en	No concerns brought forward.	
First Nations consultation complete?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<b>CONSULTATION – GENERAL, EXISTING TENURE HOLDERS</b> (Forest, Range, Guide Outfitters, Trappers): Info-share was initiated for existing Tenure Holders on April 22, 2022.		
Tenure Holder	Concerns?	Measures proposed to address licensee's concerns
Range: George Amendt	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Carl Doglione	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Sharon Robertson	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Ootsa Lake Cattle Company	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Victor Bateson	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Jonathan Solecki	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Jack Burt	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Clint Lambert	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Elizabeth McEntire	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Harold Moroski	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T014	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T017	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T018	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T019	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T020	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Guide Outfitter: James Lancaster	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Guide Outfitter: Brett Hall	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Guide Outfitter: Gary Blackwell	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
PRIVATE PROPERTY		
Does private property border the proposed treatment area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	There is no private land immediately adjacent to WRR-14.
SMOKE MANAGEMENT		
Does a smoke management plan beyond OBSCR exist for the proposed treatment area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area is within a Medium Smoke Sensitivity Zone and therefore the <i>August 2021 Community Wildfire Risk Reduction Open Burning Smoke Control Regulations</i> will be followed for the burning of debris piles.
SAFETY		
Have any specific safety concerns been identified in or adjacent to the proposed treatment area?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	The level of blowdown within these proposed treatment areas are very high. Cattle are no longer able to use this area as it is completely impassable.

UTILITIES		
Are utilities located in or adjacent to the proposed treatment area? i.e. power lines, gas lines, etc.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	The proposed shape is adjacent to utility lines which are along the Keefe's Landing Road.
ACCESS CONTROL		
Are there any foreseen issues with access and access control during and post treatment?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	There are no foreseen access issues for access to the proposed Wildfire Risk Reduction shape in this Prescription.
TRAFFIC CONTROL		
Is traffic control required at any point during operations?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	There is no need for traffic control on this shape because timber will be felled into the block, and there is a minimum of a tree length right of way cleared between the blocks and the Keefe's Landing Road.
OTHER (E.g Public Notification)		
Notification of commencement of harvesting activities should be posted on Chinook Community Forest's Facebook Page.		

H. STAND AND STOCK TABLE
<p>Is merchantable timber cutting prescribed? If yes, please provide details below.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>About 56.4% percent of the treatment unit contains merchantable timber. The intent of this project is to recover as much fibre as possible from these proposed areas. The appropriate tenure authorization method will be applied for once timber purchase agreements have been arranged.</p>
<p>Are there any challenges to utilizing merchantable material? If yes, please provide details below.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>There is extensive blowdown, dead standing and ladder fuels throughout the Prescription area. Much of the volume that is down on the ground and overlapping has been dead and down for many years now. The hope is that the merchantable stems can be separated out efficiently and effectively from the stems that cannot to aid in a seamless flow of merchantable timber from the Prescription area. Because this is a very small block, debris may be left on site for a small period of time so that community members may come and load out the material for firewood. Any debris that remains after that period of time ends will be burnt.</p>

TREATMENT SPECIFICATIONS SUMMARY	
TU 1	TREE REMOVAL/RETENTION STRATEGY BY SIZE/SPECIES (Summarize specifications identified in table above)
1	<p><b>Silviculture Systems:</b> Clearcut with Reserve (CCRES)</p> <p><b>Treatment Regimes:</b> Conventional Harvest (HARV), Hazard Tree Removal (HTR), Surface Fuel Reduction (SFR), Mechanical Pile and Burn (PILE BURN)</p>

TREATMENT SPECIFICATION RATIONALE
<p>Treatment activities will utilize a clearcut with reserve silviculture system and primarily requires the use of mechanical treatment methods. Initial treatment phases will remove remnant hazardous overstory fuels consisting of 197.6 m<sup>3</sup>/ha lodgepole pine, of which 100% of this volume is dead potential lodgepole pine. Secondary treatment phases will require surface fuel reductions to the specified targets by means of mainly mechanical methods, with the possibility of manual treatment methods. Treatment activities are expected to transition stands from a C-2 fuel type (Boreal Spruce *with MPB affected stands) to a C-6 (Conifer Plantation) and reduce surface fire intensities significantly. Post treatment fire intensities will be dependant on the availability of an appropriate fire management stocking standard and subsequent stand tending activities.</p> <p>To reduce predicted fire behaviour the following treatment specifications have been applied:</p> <ul style="list-style-type: none"> <li>- Retain all live deciduous trees except where their removal is necessary to address a safety concern.</li> <li>- Remove all live and dead overstory and understory coniferous trees unless the tree is to be retained to achieve biodiversity objectives or the tree has been identified as a wildlife habitat or cultural heritage feature.</li> <li>- Reduce &lt;7.0 cm surface fuel loads to 0.5 kg/m<sup>2</sup> (+/- 0.25 kg/m<sup>2</sup>).</li> <li>- Reduce &gt;7.0 cm surface fuel loads to 2.5 kg/m<sup>2</sup> (+/- 0.5 kg/m<sup>2</sup>).</li> </ul>

TU 1: STAND AND STOCK TABLE DATA									
Species and Diameter Class <sup>1</sup>	Crown Base Height Range (m)	Average Tree Height (m)	STEMS PER HECTARE (sph)			VOLUME PER HECTARE (m <sup>3</sup> /ha) <sup>2</sup>			Basal Area (m <sup>2</sup> )
			Existing	Cut	Leave	Existing	Cut	Leave	Existing
<b>Layer 1 (≥ 22.5 cm - 27.5 cm dbh)</b>									
Pl	-	24	491	491	0	197.6	197.6	0	35
Total Dead Potential			491	491	0	197.6	197.6	0	35
Total Live			0	0	0	0	0	0	0
Total All Species		24	491	491	0	197.6	197.6	0	35
Total Conifers		24	491	491	0	197.6	197.6	0	35
<b>TOTALS: Layer 1</b>									
<b>Total Layer 1 - All Species</b>	-	<b>24</b>	<b>491</b>	<b>491</b>	<b>0</b>	<b>197.6</b>	<b>197.6</b>	<b>0</b>	<b>35</b>
Total Layer - Conifers Only	-	24	491	491	0	197.6	197.6	0	35

<sup>1</sup> Modify diameter classes as required to suite treatment.

<sup>2</sup> A professional estimate is required for any merchantable cutting

SURFACE FUEL LOADING (kg/m <sup>2</sup> )					
Size Class (cm)	Existing (kg/m <sup>2</sup> )	Existing Distribution	Target (kg/m <sup>2</sup> )	Target Distribution	Methodology Used
Fine Woody Debris (</=7cm)	1.24	Moderately continuous distribution with accumulations associated with suspended and jackpotted lodgepole pine.	0.5 kg/m <sup>2</sup> (+/- 0.25 kg/m <sup>2</sup> )	Reduce to target levels with an acceptable range of ±0.25 kg/m <sup>2</sup> . Maintain poor continuity between residual pieces and avoid creating aggregations.	Line Intersect Sampling Method
Large Diameter Woody Debris (>7cm – 20cm)	3.35	Continuous distribution of lodgepole pine damaged by mountain pine beetle as well as some hybrid spruce damaged by wind. Pieces typically have a decay class of 2 to 3.	2.5 kg/m <sup>2</sup> (+/- 0.5 kg/m <sup>2</sup> )	Reduce below target levels with an acceptable range of ±0.5 kg/m <sup>2</sup> . Ensure poor continuity between retained pieces and avoid creating aggregations.	
Coarse Woody Debris (CWD) (20cm+)	5.59				
Crown Closure (%): 20	Existing Total: 10.17 kg/m <sup>2</sup>		Target: 3.0 kg/m <sup>2</sup> (+/- 0.75 kg/m <sup>2</sup> )		

BIODIVERSITY AND FOREST HEALTH CONSIDERATIONS AND TARGETS	
COARSE WOODY DEBRIS (CWD) RETENTION TARGET – Distribution	Using the <i>May 2022 Chief Forester’s Guidance on Coarse Woody Debris Management on Wildfire Mitigation Treatments</i> , the recommendation is to leave 5 CWD pieces per hectare in the SBS dk.
WILDLIFE TREE RETENTION TARGET	Retain up to 10 sph of large diameter (>30 cm dbh) dead potential stems as wildlife snags. Retain one (1) patch (20 x 20 m) of suitable secondary stand structure per hectare for wildlife habitat. Retention patches must be allocated so as to maintain discontinuity to adjacent stands, be anchored around deciduous and dead potential tree retention where practicable, and contain 400-600 sph of healthy poles and/or saplings (where they exist) with good form and vigour. Retain three (3) to five (5) high stumps (>1.0 m) per hectare adjacent to retention patches to ensure they do not incur damage as a result of skidding/yarding activities.
FOREST HEALTH- Should include sections such as agent, affected species, incidence rating, mortality, and targets	Stands have been assessed to be in poor condition due to the impacts of forest health factors. Lodgepole pine overstory trees exhibited total mortality (100%) as a result of historical mountain pine beetle infestation. Significant wind damage has occurred where dead lodgepole pine have succumb to wind and snow loads and have transitioned to the forest floor. Additionally, windthrow contributions from residual stand components are anticipated to increase as stand condition continues to decline and stand density decreases. Evidence of incipient mountain pine beetle infestation was not noted. <b>WINDTHROW RISK EVALUATION</b> Windthrow assessments indicate the proposed treatment activities will result in a moderate potential for future windthrow risk due to topographic location due to prevailing wind directions. Wind damage is common in stands that have been impacted insect occurrences mainly from historical mountain pine beetle infestations, yet also due to root rot.

I. TREATMENT DESCRIPTION
MERCHANTABLE TIMBER CUTTING
<p><b>ROADS, LANDINGS AND TRAILS:</b>            Access to the unit will be gained by using the Moss FSR at 8.2km on the Keefe’s Landing Road. There is an existing old trail at 0+450m on the Moss FSR which will be the main access point, which will include one (1) new road permit section.</p> <p><b>All additional access structure required to accommodate the prescribed treatment activities, or otherwise necessitated by site conditions or to address a safety concern, must be approved by an authorized treatment supervisor.</b></p>
<p><b>FELLING:</b>            Felling activities will employ mechanical falling equipment (i.e. feller-bunchers, harvesters).            If or where any hand felling activities are used, they must be carried out by Fallers certified to the BC Faller Training Standard (BCFTS) with the skills and experience to achieve the treatment specifications without damaging residual stand components.</p>
<p><b>YARDING/SKIDDING:</b>            Conventional ground-based primary transport equipment (i.e. rubber-tired skidders, forwarders, etc.) will be utilized to carry out skidding/yarding activities. If rubber-tired skidders are utilized, retain high stumps (&lt;1.0 m in height) adjacent to retained trees to prevent retention from incurring damage as a result of yarding and skidding activities.</p>
<p><b>LOADING AND HAULING:</b>            Loading activities will be carried out within the right of way of proposed access structures and any required landings. Hauling activities will be carried out using an appropriate logging truck configuration for the harvest systems employed and processing facility requirements.</p>
<p><b>SLASH DISPOSAL:</b>            Treatment residues and existing downed woody material in excess of prescribed &gt;7.0 cm targets will be brought to road right of ways to facilitate biomass utilization where practicable. Material should be marketed to local processing facilities where a biomass fibre recovery opportunity exists. Where a biomass recovery opportunity does not exist alternative markets/users should be explored, or the material should be piled and burned on site.</p> <p>The quantity and distribution of biomass resulting from initial mechanical treatment phases will vary with the harvest systems used. Roadside processing may improve biomass recovery opportunities relative to processing at the stump, especially where selection systems have been proposed. Processing at the stump, while improving other objectives, will result in increased dispersed fuel loads and increase the requirement for fire hazard abatement activities.</p> <p><b>STRATEGIES TO IMPROVE BIOMASS UTILIZATION:</b></p> <ul style="list-style-type: none"> <li>- Aggregate treatment residues, unutilized dead and down material, and bucking waste within utilization requirements for biomass facilities within road right of ways.</li> <li>- Avoid incorporating mineral soil and other contaminants into piles.</li> </ul>
STAND MODIFICATION TREATMENTS
<p><b>BRUSHING:</b> Manual brushing treatments have not been prescribed.</p>
<p><b>PRUNING:</b> Pruning treatments have not been prescribed.</p>
<p><b>THINNING:</b> Thinning treatments have not been prescribed.</p>
<p><b>DEBRIS PILING:</b>            Un-utilized biomass – including treatment residues and residual downed woody material – in excess of prescribed surface fuel load reduction targets outside of right of ways will be aggregated into debris piles. Debris piles must be a minimum of ½ the height of the pile’s base width with taller piles being preferred. Surface fuels with a decay class of 4 or 5 do not contribute to surface fuel load calculations and may be retained on site.</p> <p><b>STRATEGIES FOR DEBRIS PILING:</b></p> <ul style="list-style-type: none"> <li>- Carry out debris piling activities in snow free conditions.</li> <li>- Construct piles in locations that prevent retention from incurring heat damage and crown scorching during pile burning activities (i.e. within natural openings).</li> <li>- Ensure piles contain a mix of material sizes and decay classes to facilitate effective ignition and complete combustion.</li> <li>- Avoid incorporating mineral soil and other non-combustible debris into piles.</li> </ul>

<p><b>PILE BURNING:</b></p> <p>Burning activities must be carried out in compliance with the Wildfire Act and its Regulation as well as the Environmental Management Act (EMA); namely the Open Burning and Smoke Control Regulation (OBSCR).</p> <p>The treatment area is within a Medium Smoke Sensitivity Zone (SSZ) as indicated by Smoke Sensitivity Zone map #38 – Nechako River (93F). All open burning activities within the Eakin Settlement area are subject to the requirements of section 9, 10, 11, 13, 14, and 15 of OBSCR. However, the FTU falls under a plan for community wildfire risk reduction – the Nadina South Side Wildfire Risk Reduction Tactical Plan – and therefore may be carried out in accordance with section 23 of OBSCR where open burning activities are anticipated to last less than one (1) day, or under the conditions outlined in an approval issued under section 15 of the EMA.</p> <p>No private residences or business buildings have been identified &lt;150 m of the treatment area.</p> <p>If pile burning activities will be carried out in a manner that meets the definition of a Category 3 Open Fire, as defined by the Wildfire Regulation, a Burn Registration Number (BRN) will be required. A BRN can be obtained from BCWS by calling 1-888-797-1717 or emailing hpr.1800@gov.bc.ca.</p> <p><b>STRATEGIES FOR PILE BURNING:</b></p> <ul style="list-style-type: none"> <li>- Ensure all piled debris is dry and seasoned as per the definition provided by the OBSCR.</li> <li>- Obtain custom venting forecasts to identify optimal burning opportunities.</li> <li>- Consider the utilization of an Air Curtain Burner.</li> </ul>
<p><b>MULCHING:</b> Mulching treatments have not been prescribed.</p>
<p><b>MASTICATION:</b> Mastication treatments have not been prescribed.</p>
<p><b>GRINDING:</b></p> <p>In the event that debris can sold to a biomass facility, it is likely that a grinding unit will come directly to the site to prepare the debris into the exact specifications to be shipped via a chip transport truck. If this phase is planned to occur, ensure that road access is maintained to all debris pile locations.</p>
<p><b>PRESCRIBED FIRE:</b> Prescribe Fire treatments have not been prescribed.</p>
<p><b>PLANTING:</b></p> <p>Fire Management Stocking Standards are not provided in the Agreement Holders current approved FSP and therefore an amendment to the Chinook CFA FSP 2016 stocking standards is being proposed as is shown in the Stocking Standard Table below. It is recommended that the Wildfire Risk Reduction stocking standard be requested for all Chinook CFA Wildfire Risk Reduction project areas as these standards are in line with the <i>BCWS Fuel Management Prescription Guidance 2022</i>.</p>
<p><b>OTHER:</b> N/A</p>
<p><b>AUTHORIZATION AND TIMBER TENURE</b></p>
<p><b>FRPA Section 52 (1) (b):</b></p> <p>The Agreement Holder (CFA:K4R) maintains the timber rights for all merchantable timber harvested as a result of treatment implementation unless relinquished by the CFA holder and authorized by FPRA Section 52 (1) (b).</p>
<p><b>Forestry License to Cut (FLTC):</b> Not anticipated.</p>
<p><b>Park Use Permit:</b> N/A</p>
<p><b>Road Permit or Road Use Permit:</b> One new Section for R21201 will be applied for with this Prescription area.</p>
<p><b>Other (i.e. local government, utilities, etc.):</b> n/a</p>

<b>J. POST TREATMENT</b>
<p><b>EXPECTED VEGETATION RESPONSE:</b>            Treatment activities are anticipated to result in a moderate vegetative response. Increases to shrub and herbaceous cover and the ingress of various grasses is expected throughout the treatment areas. The establishment of coniferous regeneration is expected to be variable, although site disturbance associated with treatment activities has the potential to promote root suckering where trembling aspen stand components exist.</p>
<p><b>ADDITIONAL TREATMENTS OR MAINTENANCE:</b>            Where clearcut systems have been employed, carry out stand monitoring at an interval that aligns with the required silvicultural assessments. The results of silviculture assessments will inform the mid to long term requirement for maintenance.</p>
<p><b>SILVICULTURE OBLIGATIONS:</b> Do silvicultural obligations apply to the treatment area? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p><b>PLANTING:</b> Is planting a treatment identified in this prescription or required as a legislative obligation? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>            In SU 1 an even-aged stocking standard has been applied using the table below.</p>

<b>STOCKING STANDARDS:</b>													
<b>APPLICABLE EVEN-AGED STOCKING STANDARDS:</b>													
TU	SU	Stocking Standard ID	Species (Pref.)	Species (Accep.)	Well-Spaced Stem/ha				Minimum Height (m)			Regen Delay	Free Growing (years)
					TSS	MSS		MITD	PI	Others	RTH (%)		
						Pref. & Acc.	Pref.						
1	1	TBD	PLI SX FDI LW AT EP AC	-	1200	700	600	2.0	2.0	1.0	-	4	20

K. Outstanding Works	
1.) Obtain the appropriate authorizations for the FRPA Section 52(1)(b) and for the new section required to R21201 road permit.	
2.) Obtain District Manager approval for the proposed alternative stocking standards, or upon the approval of the Chinook CFA:K4R FSP adopt the applicable fire management stocking standards if appropriate.	
3.) If required, obtain the appropriate approval(s) – under section 15 of the EMA – to exempt pile burning activities from the requirements of sections 9, 10, 11, 13, 14 and 15 and Part 3 of OBSCR.	
4.) Obtain the appropriate authorizations or exemptions for those portions of the treatment area that are within a Priority Deferral Area identified by the Old Growth Strategic Review and the Old Growth Technical Advisory Panel.	
L. ADMINISTRATION	
PREPARATION	
FOREST PROFESSIONAL NAME (Printed): Jennifer Hill, RPF	FOREST PROFESSIONAL SIGNATURE: 
MEMBER NUMBER: 3889	DATE: 2023-02-03
M. ATTACHMENTS	
MAPS: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	FIELD DATA CARDS: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
WUI WTA Plots and Photos: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	CRUISE DATA: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
AIR PHOTOS/IMAGERY: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	BURN PLAN: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
MODELING/DATA ANALYSIS: Yes <input type="checkbox"/> No <input type="checkbox"/>	OTHER: Yes <input type="checkbox"/> No <input type="checkbox"/>
SURFACE FUEL LOADING DATA: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
TERRAIN STABILITY ASSESSMENT: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	VISUAL IMPACT ASSESSMENT: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Completed By: Date:	Completed By: Date:
ARCHAEOLOGY IMPACT ASSESSMENT Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	BIOLOGIST ASSESSMENT Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Completed By: Date:	Completed By: Date:
ADDITIONAL COMMENTS: MAPS: The following maps have been provided to support the prescribed activities: • Prescription Map • Ortho Treatment Map • Location Map	

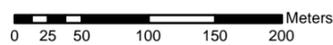


# K4R / FESBC Wildfire Risk Reduction Prescription Map # 6

Nadina Natural Resource District  
 Northwest Fire Centre- Nadina Zone  
 FMTU-Keefe's Landing Rd  
 CFA-K4R  
 93F.081  
 Field Work By: Jennifer Hill  
 Map Produced By Loretta Johnson  
 Date: November 29, 2022

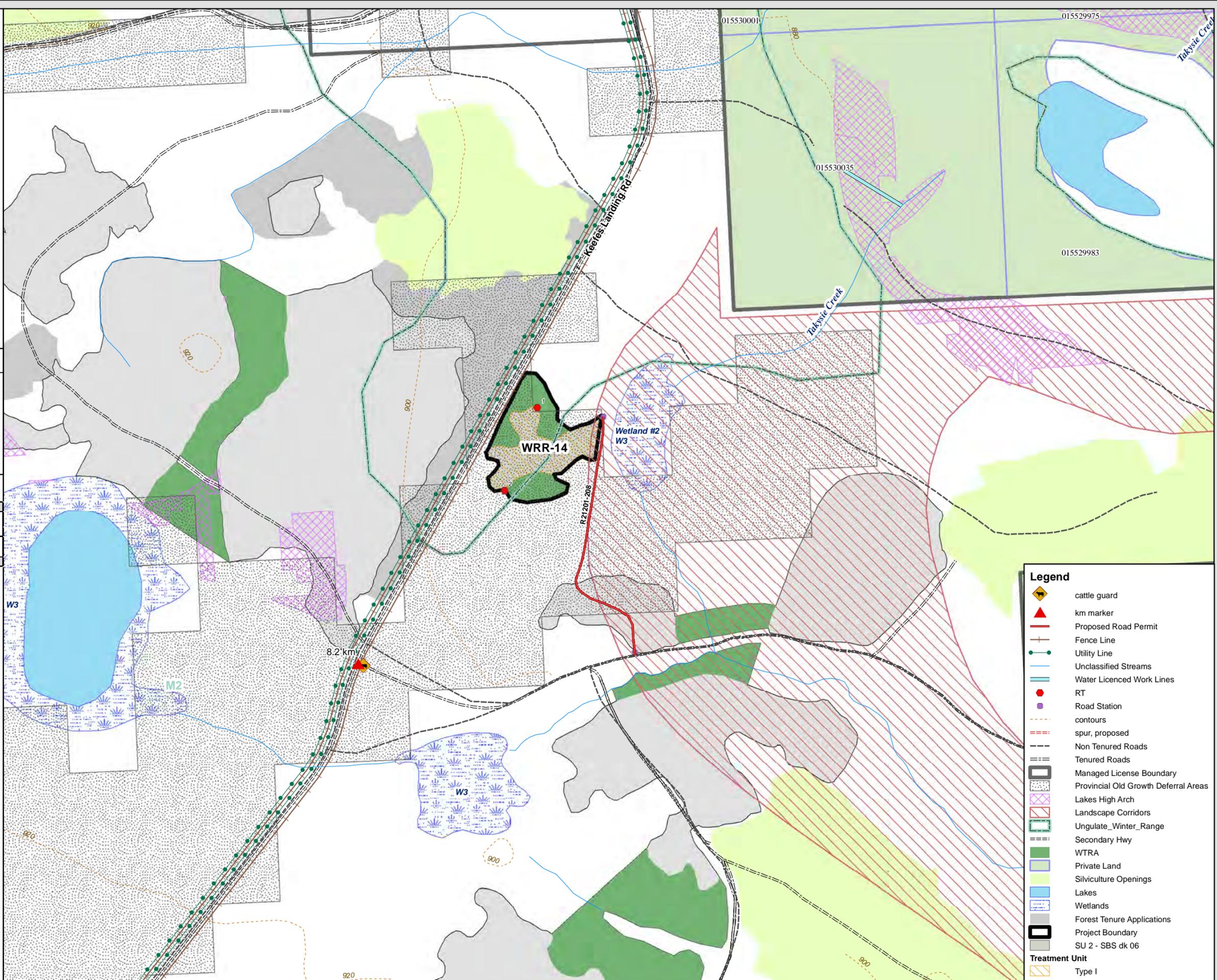
Block	WTRA	TU-1	TU-2	GROSS Ha
WWR-14	0.8	1.0	0.0	1.8

TREATMENT UNIT (TU) SUMMARY							
TU	SU	NET AREA (ha)	GROSS AREA (ha)	LEAVE AREAS (ha)	NP (ha)	NAR (ha)	TREATMENT REGIME
1	2	1.0	1.8	0.8	0	1.0	CCRES / HARV / SFR / Mechanical Debris Pile & Burn
TOTALS		1.0	1.8	0.8	0.0	1.0	



1:5,000

Free Growing Forestry Ltd.  
 PO Box 510, 135 1st Ave, Burns Lake, BC V0J 1E0  
 Phone (250) 692-3443 Fax (250) 692-3464  
 Email: loretta.johnson@freegrowing.ca



**Legend**

- cattle guard
- km marker
- Proposed Road Permit
- Fence Line
- Utility Line
- Unclassified Streams
- Water Licenced Work Lines
- RT
- Road Station
- contours
- spur, proposed
- Non Tenured Roads
- Tenured Roads
- Managed License Boundary
- Provincial Old Growth Deferral Areas
- Lakes High Arch
- Landscape Corridors
- Ungulate Winter Range
- Secondary Hwy
- WTRA
- Private Land
- Silviculture Openings
- Lakes
- Wetlands
- Forest Tenure Applications
- Project Boundary
- SU 2 - SBS dk 06
- Treatment Unit**
- Type I

**Rx 6 – Ground Fuel Photo:**



**Rx 6 – Ladder Fuels Photo:**



**Rx 6 – Crown Photo:**



<b>A. PROJECT IDENTIFICATION</b>	
<b>PROJECT ID AND UNIT ID:</b> <b>K4R/FESBC Wildfire Risk Reduction – Prescription #7</b> 9.4 km to 11.8 km Keefe’s Landing Road Original WRR Shapes #15	<b>LAND OR TENURE HOLDER:</b> Chinook Community Forest Tenure K4R (CFA:K4R)
<b>LATITUDE/LONGITUDE:</b> 53° 51’ 31” N, 125° 58’ 46” W	<b>GEOGRAPHIC DESCRIPTION:</b> Keefe’s Landing Road, 9.4 km to 11.8 km
<b>HIGHER-LEVEL PLAN(s):</b> Lakes District Land and Resource Management Plan – 2000 Lakes South Sustainable Resource Management Plan – 2003	<b>MAP REFERENCE NUMBER:</b> 93F 081

<b>B. FUEL TREATMENT PROJECT DESCRIPTION</b>			
<b>OBJECTIVE:</b>	<input checked="" type="checkbox"/> Public Safety	<input checked="" type="checkbox"/> Range Improvement	<input checked="" type="checkbox"/> Ecosystem Restoration
	<input type="checkbox"/> Recreation	<input type="checkbox"/> Wildlife Habitat	<input type="checkbox"/> Other:
<p>Prescription Area #7 – Wildfire Risk Reduction (WRR) treatment area from 9.4 – 11.8 km on the Keefe’s Landing Road on the south side of François Lake. This unit is entirely within the Chinook Community Forest (CFA:K4R) tenure area, and has been identified as a high priority corridor by the British Columbia Wildfire Service (BCWS) Wildfire Risk Reduction (WRR) Tactical Plan.</p> <p>The unit is within the François Lake Wildland Urban Interface (WUI) Risk Class (RC) polygon which has been assigned a risk class rating of 2 due to the prevalence of High Value Resources and Assets (HVRAs) namely the infrastructure and community values along the Keefe’s Landing Road. The Provincial Strategic Threat Analysis (PSTA) has classified stands within the unit as having a Final Threat Rating (FTR) of high (7) to extreme (9). This rating considers the anticipated head fire intensities and spotting impacts for the fuel types present as well as historical fire densities. Initial spread index (ISI) roses generated by the Grassy Plains Hub (161) fire weather station indicate that prevailing winds during the core fire season are typically from the southwest.</p> <p>The objectives of this Prescription are to:</p> <ul style="list-style-type: none"> <li>• reduce the risk of wildfire to public safety by modifying forest fuels within wildland urban interface (WUI) areas – specifically the properties, residences, and infrastructure near the Keefe’s Landing Road.</li> <li>• reduce the risk of wildfire to public safety by modifying fuels adjacent to critical evacuation corridors – specifically those along the Keefe’s Landing Road network.</li> <li>• reduce the risk of wildfire to critical infrastructure and property by modifying forest fuels adjacent to, or likely to influence forest fuels adjacent to, identified values at risk.</li> <li>• develop ecologically appropriate and effective wildfire risk reduction solutions that give due regard to overlapping land management objectives and tenure obligations.</li> <li>• develop ecologically appropriate and effective wildfire risk reduction solutions that give due regard to site and stand conditions to maintain forest health and site productivity.</li> <li>• create defensible space for wildland fire fighters to anchor suppression strategies and tactics from during incident response by removing or modifying hazardous forest fuels in a way that improves firefighter safety and reduces fire behaviour potential.</li> </ul>			

<p><b>STRATEGIES:</b></p>	<p>Wildfire risk reduction objectives will be achieved through the application of treatment regimes designed to address site and stand specific conditions. Treatments will reduce fire behaviour potential through the modification or removal of hazardous forest fuels as well as through reductions to surface fuel load contributions from downed woody material and treatment residues. Stand modifications are intended to reduce fire intensities and reduce continuity between forest fuels, and therefore reduce the potential for the propagation and persistence of crown fire as well as the potential for spotting. Treatment intensities increase with the level of hazard identified as well as in response to anticipated operational limitations. The prescribed treatment activities balance WRR objectives with established land use objectives and existing tenure obligations to reduce the risk of wildfire to public safety, promote natural processes and maintain ecosystem function, as well as to reduce open burning requirements through the utilization of biomass.</p>
<p><b>METHODS:</b></p>	<p>The proposed operational treatment for this TU 1 of this Prescription area will be a Clearcut with Reserves (CCRES) Silviculture System and TU 2 will be a Clearcut with Dispersed Retention (CCDRET) Silviculture System as both TU's requires significant stand modification to address the hazardous stand conditions. Stand conditions are poor in these areas due to the impacts of historical insect infestations and subsequent wind events. The prescription area will provide moderate to marginal commercial fibre recovery opportunities. Initial stand entries require an overstory removal phase utilizing conventional ground-based harvest (HARV) methods. Final treatment phases require surface fuel load reductions (SFR) to dead and down material and treatment residues by mechanical surface fuel reductions to existing downed woody materials and treatment residues to ensure surface fuel load targets are achieved. Surface fuel reduction targets are intended to reduce surface fire intensities to a level below critical surface fire intensity thresholds (&lt;2000 kW/m) under 90th percentile fire weather conditions as well as to comply with provincial fuel hazard abatement requirements. Prescription area design and specifications have been developed with consideration of the influence of topography. However, fine adjustments to initial spread indexes (ISI) to account for the influence of slope have not been incorporated into treatment specifications.</p>

C. TREATMENT UNIT (TU) SUMMARY							
TU	SU	NET AREA (ha)	GROSS AREA (ha)	LEAVE AREAS (ha)	NP (ha)	NAR (ha)	TREATMENT REGIME (i.e. PRUNE THIN, PILE BURN, BROAD, CHAUL, ETC.)
1	1, 3	21.5	30.3	8.8	0	21.5	CCRES / HARV / SFR / Mechanical Debris Pile & Burn
2	1, 3	7.5	7.5	0	0	7.5	CCDRET / HARV / SFR / Mechanical Debris Pile & Burn
<b>TOTALS</b>		<b>29.0</b>	<b>37.8</b>	<b>8.8</b>	<b>0</b>	<b>29.0</b>	

D. SITE CHARACTERISTICS							
TU	<u>CFFBPS FUEL TYPE</u>	TIMBER TYPE	BGC SUBZONE, VARIANT & SITE ASSOC.	ELEVATION RANGE (m)	SLOPE POSITION	SLOPE RANGE (%)	ASPECT
1	C2	MATURE Coniferous	SBS dk 01	950 – 980	Middle	5 – 16	Southeast
2	C2	MATURE Coniferous	SBS mc2 01	995 – 1060	Middle	7 – 20	South
<b>FUEL TYPE DETERMINATION</b>		<p>TU1: C2 is the fuel type is used for representing mountain pine beetle (MPB) affected stands.</p> <p>TU 2: C2 is the fuel type used, based upon observed fire behaviour, for mid-elevation interior white spruce and hybrid spruce stands throughout the province.</p>					

E. SOIL CHARACTERISTICS							
TU	SOIL TEXTURE	DUFF DEPTH (cm)	COARSE FRAGMENTS (%)	SOIL DISTURBANCE LIMIT (%)	SOIL HAZARD RATING		
					Compaction	Erosion	Displacement
1	SL	2	45 - 55	10	M	M	L
2	SL	1-2	45 - 55	10	M	M	L

F. VALUES – FOREST AND RANGE PRACTICES ACT				
<b>RIPARIAN &amp; LAKESHORE AREAS</b> - 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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	Riparian features that occur within the Chinook Community Forest Agreement (CFA) tenure area have been managed in accordance with section 6.5.2 of the approved Chinook CFA Forest Stewardship Plan (FSP) 2016 and are otherwise compliant with the requirements of section 47 to 51, 52(2), and 53 of the FPPR.		
<b>RIPARIAN MANAGEMENT AREAS (RMAs)</b> - FPPR sections 51 and 52				
STREAM, LAKE, WETLAND ID	CLASS	RRZ (m)	RMZ (m)	SPECIFICATIONS FOR RIPARIAN OR LAKESHORE MANAGEMENT AREAS
Stream #5	S6	0	20	The block is located greater than 20 m away from the S6 Stream.
Stream #6	S6	0	20	The block is located greater than 20 m away from the S6 Stream.
Wetland #3	W1	10	40	The block is located greater than 10 m away from the W1 Wetland, yet overlaps into the RMZ by 10m in two locations.
<b>TEMPERATURE SENSITIVE STREAMS</b> - 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been prescribed in areas that contain, are adjacent to, or are a direct tributary to an identified temperature sensitive stream.		
<b>ROAD CONSTRUCTION IN RIPARIAN MANAGEMENT AREAS</b> - FPPR section 50				
Is road construction proposed in riparian management areas within the treatment area or an associated road permit (RP)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Road construction activities have not been proposed within the RMA of any identified riparian feature.		
<b>STREAM CROSSINGS</b> - 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	There are no riparian crossings associated with this prescription.		

<b>MAINTAINING STREAM BANK AND CHANNEL STABILITY ON S4, S5, and S6 STREAMS - FPPR section 52 (2)</b>				
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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been prescribed within the RMZ of an S4, S5, or S6 stream that is a direct tributary to an S1, S2, or S3 stream, and therefore the basal area retention requirements for maintaining stream bank and channel stability provided by section 52 of the FPPR do not apply.		
<b>DOMESTIC WATER LICENCES (inside or outside of community watershed) - FPPR section 59</b>				
Does the proposed treatment area contain water sources that are diverted for human consumption by a licensed waterworks?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area does not include water sources that are diverted for human consumption by a licensed waterworks.		
<b>LICENCED WATER WORKS (inside or outside of a community watershed) - FPPR section 60</b>				
Does the proposed treatment include areas that are within 100m of a licensed waterworks?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment and road construction activities have not been proposed within 100 m of a licensed waterworks that is within a community watershed.		
<b>FISHERIES SENSITIVE WATERSHED - GAR section 14, FPPR section 8.1</b>				
Are any activities proposed within a fisheries sensitive watershed?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed within a fisheries sensitive watershed.		
<b>COMMUNITY WATERSHED - GAR section 8, FPPR section 8.2, 61, 62 and 84</b>				
Does the proposed treatment area include areas that are within a community watershed?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed within a community watershed.		
Will this project require road construction or deactivation within a community watershed?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment and road construction activities have not been proposed within a community watershed.		
<b>WATERSHED ASSESSMENT CONSIDERATIONS - FRPA section 180 areas with "significant watershed sensitivity"</b>				
Does the proposed treatment area include areas that have watershed assessment considerations?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed in areas identified as having significant watershed sensitivity or other watershed assessment considerations.		
<b>SOIL DISTURBANCE AND PERMANENT ACCESS STRUCTURES - FPPR sections 35 and 36</b>				
Treatment Unit (TU)  1 / 2	Proposed Max. Allowable Soil Disturbance (5% or 10%)  10%	Proposed Max. Soil Disturbance for Roadside Work Areas  25%	Proposed Max. Permanent Access Structures  5%	Comments  Proposed permanent access structures calculated at 2.8%, and they will be planted once all treatment activities are complete.
Do the proposed Permanent Access Structures exceed 7% of the total area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Permanent access structures will not exceed 7%.		
<b>LANDSLIDES AND TERRAIN STABILITY - FPPR section 37</b>				
Does the proposed treatment area include areas where terrain stability is a concern?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Indicators of slope instability or landslides were not noted within the treatment area.		

<b>SUITABLE SECONDARY STRUCTURE - FPPR section 43.1</b>		
Does the proposed treatment area include a “targeted pine leading stand”?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed in a “targeted pine leading stand” as defined by section 1 of the FPPR. Additionally, the treatment activities proposed will occur entirely within a community forest agreement (CFA) license for the purpose of wildfire risk reduction and therefore, as per section 43.1(4) and 43.1(2) of the FPPR, the secondary stand structure retention specifications set out by section 43.1(1) of the FPPR do not apply.
<b>UNGULATE WINTER RANGE - GAR section 12, FRPA sections 180 and 181, FPPR section 69</b>		
Does the proposed treatment area include areas within an Ungulate Winter Range?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Treatment activities overlap by about 80% into a Special Resource Management Sub-Zone 4 with identified M2 ungulate winter habitat for Moose. Prior to the commencement of treatment activities the Agreement Holder will ensure that the habitat requirements for the winter survival of ungulate species specified by s.6.4.2 of the FSP are maintained.
<b>WILDLIFE HABITAT AREA - GAR section 10, FRPA sections 180 and 181, FPPR section 69</b>		
Does the proposed treatment area include any wildlife habitat areas (WHA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area does not overlap any mapped or otherwise identified wildlife habitat areas.
<b>MIGRATORY BIRD CONVENTION ACT – 1994</b>		
Does the proposed treatment have the potential to impact migratory bird habitat?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The nest density ranking for this Prescription area is 2 and therefore is not likely to impact Migratory Bird Habitat.
<b>OBJECTIVES SET BY GOVERNMENT FOR WILDLIFE - FPPR section 7</b>		
Does the proposed treatment area include areas to which objectives for wildlife under FPPR section 7 apply?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	A legal order establishing objectives set by government for wildlife has not been enacted in the Lakes district and objectives are not specified in the Lakes LRMP or the Lakes South SRMP. Two notices, enabled under section 7(2) of the FPPR, specifying indicators of the amount, distribution and attributes of wildlife habitat required for the winter survival of ungulate species as well as for the survival of species at risk exist for the Lakes and Nadina districts, respectively.
<b>OBJECTIVES SET BY GOVERNMENT FOR BIODIVERSITY OBJECTIVES (Landscape Level) - FPPR Part 4 Division 5</b>		
Does the proposed treatment area include areas to which objectives for landscape level biodiversity under FPPR section 9 apply?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	The design of the proposed Wildfire Risk Reduction areas will resemble, both spatially and temporally, the patterns of natural disturbance that occur within the landscape.
<b>OBJECTIVES SET BY GOVERNMENT FOR BIODIVERSITY OBJECTIVES (Stand Level) - FPPR Part 4 Division 5</b>		
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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	Three external and two internal Wildlife Tree Patch areas amounting to 8.8 ha (23.3%) have been identified with this plan.

<b>RECREATION FEATURES - FRPA section 56 and 149, FPPR section 70</b>		
Does the proposed treatment area contain interpretive sites, recreation trails, recreation sites, recreation facilities that are of significant recreation value and are designated a resource feature?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area does not contain known interpretive sites, recreation trails, recreation sites, recreation facilities that are considered to be of significant recreation value and are designated a resource feature.
<b>VISUAL QUALITY OBJECTIVES - GAR section 7, FRPA sections 180 and 181, FPPR section 9.2</b>		
Is the proposed treatment within a scenic area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	WRR-15 is not within a Scenic Area nor a VQO – Retention polygon.
<b>ARCHAEOLOGICAL RESOURCES/CULTURAL HERITAGE RESOURCES - FPPR section 10</b>		
Are there any known archaeological sites or cultural heritage resources that are important to First Nations within the proposed area?  No Referral to Land Manager is required if proposed TU is on the applicant's own First Nation Land.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	WRR-15 overlaps with a CHR High Archaeological polygon by 6% and two potential Post 1846 Culturally Modified Trees (CMT) were located in this overlap areas. No archaeological sites or other cultural heritage resources (CHR) were identified with the proposed treatment areas. In the event that additional CHR features are identified or otherwise made known during First Nation information sharing and consultation, measures to protect the CHR or address First Nation concerns must be communicated by an addendum to, or an amendment of this prescription. In the event that previously unidentified CHR features are encountered while carrying out treatment activities, work in the area must stop, and an authorized treatment supervisor must be notified. The Agreement Holder will complete a cultural heritage resource evaluation (CHR) and provide management direction to protect or otherwise manage for the identified feature(s).
<b>INVASIVE PLANTS - FRPA section 47 and FPPR section 17</b>		
Is the introduction and spread of invasive plants likely as a result of the proposed treatment?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Review of the Invasive Alien Plant Program (IAPP) database indicated the presence of invasive plant species adjacent to the FTU along the Keefe's Landing Road. IAPP sites include Orange Hawkweed (OH), Meadow Buttercup (MB), Oxeye Daisy (OD), Scentless Chamomile (SH), Common Tansy (TC), and Yellow Hawkweed (YH).
<b>NATURAL RANGE BARRIERS - FRPA section 48, FPPR section 18</b>		
Are there natural range barriers within the proposed treatment area that are likely to be removed or rendered ineffective?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	A fenceline exist along the block side of Keefe's Landing Road. In the event that fencelines are damaged, they will be repaired to the pre-damaged condition.
<b>SPECIES AT RISK – FPPA section 7</b>		
Are there species at risk present within the boundaries of the prescribed treatment area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No known occurrences of a species at risk were noted during field assessments or through review of BC Conservation Data Centre spatial data.
<b>LAND USE OBJECTIVES (Higher Level Plans and objectives set by Government under the <i>Land Act</i>)</b>		
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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Prescribed activities are not expected to conflict with other land use objectives not specifically addressed by this prescription.

<b>LAND USE OBJECTIVES</b> (Higher Level Plans and objectives set by Government under the <i>Land Act</i> ) Cont'd		
Do the proposed activities conflict with land use objectives (higher level plans or objectives under the <i>Land Act</i> )?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Prescribed activities are not expected to conflict with other land use objectives not specifically addressed by this prescription.
Known and potential species at risk, windthrow hazard, and old growth management areas?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Treatment activities have not been proposed in an old growth management area (OGMA) established by the Lakes South SRMP.
Do the proposed activities conflict with Provincial Priority Deferral Areas (PROV. DEF) identified by the Old Growth Strategic Review?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Proposed harvest area WRR-15 overlaps into the newly designated PROV. DEF by 20%. The Agreement Holder has an exemption from the Nadina Resource District to allow for the overlap between the PROV. DEF areas and all Wildfire Risk Reduction proposed areas.

**G. OTHER CONSIDERATIONS AND REQUIREMENTS**

<b>CONSULTATION – FIRST NATIONS:</b> Info-share was initiated on April 22, 2022 and Adequacy Letter is called: 10455-50/22 K4R WRR IS1 and is dated July 04, 2022		
FIRST NATION	CONCERNS IDENTIFIED AND MEASURES TO ADDRESS	
Nee Tahi Buhn Band	No concerns brought forward.	
Skin Tyee Nation	No concerns brought forward.	
Stellat'en First Nation	No concerns brought forward.	
Wet'suwet'en First Nation	No concerns brought forward.	
Office of the Wet'sewet'en	No concerns brought forward.	
First Nations consultation complete?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<b>CONSULTATION – GENERAL, EXISTING TENURE HOLDERS</b> (Forest, Range, Guide Outfitters, Trappers): Info-share was initiated for existing Tenure Holders on April 22, 2022.		
Tenure Holder	Concerns?	Measures proposed to address licensee's concerns
Range: George Amendt	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Carl Doglione	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Sharon Robertson	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Ootsa Lake Cattle Company	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Victor Bateson	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Jonathan Solecki	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Jack Burt	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Clint Lambert	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Elizabeth McEntire	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Range: Harold Moroski	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T014	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T017	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T018	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T019	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Trapline: TR0604T020	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Guide Outfitter: James Lancaster	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Guide Outfitter: Brett Hall	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.
Guide Outfitter: Gary Blackwell	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No concerns brought forward.

PRIVATE PROPERTY		
Does private property border the proposed treatment area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	There is no private land immediately adjacent to proposed WRR-15.
SMOKE MANAGEMENT		
Does a smoke management plan beyond OBSCR exist for the proposed treatment area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The treatment area is within a Medium Smoke Sensitivity Zone and therefore the <i>August 2021 Community Wildfire Risk Reduction Open Burning Smoke Control Regulations</i> will be followed for the burning of debris piles.
SAFETY		
Have any specific safety concerns been identified in or adjacent to the proposed treatment area?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	The level of blowdown within these proposed treatment areas are very high. Cattle within this range tenure area are no longer able to use portions of this area as they are completely impassable.
UTILITIES		
Are utilities located in or adjacent to the proposed treatment area? i.e. power lines, gas lines, etc.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	The proposed shape is adjacent to utility lines which are along the Keefe's Landing Road.
ACCESS CONTROL		
Are there any foreseen issues with access and access control during and post treatment?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	There are no foreseen access issues for access to any of the proposed Wildfire Risk Reduction shapes in this Prescription.
TRAFFIC CONTROL		
Is traffic control required at any point during operations?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	There is no need for traffic control on this shape because timber will be felled into the blocks, and there is a minimum of a tree length previously cleared between the blocks and the Keefe's Landing Road.
OTHER (E.g Public Notification)		
Notification of commencement of harvesting activities should be posted on Chinook Community Forest's Facebook Page.		

H. STAND AND STOCK TABLE
<p>Is merchantable timber cutting prescribed? If yes, please provide details below.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>About 65.5% percent of the treatment unit contains merchantable timber. The intent of this project is to recover as much fibre as possible from these proposed areas. The appropriate tenure authorization method will be applied for once timber purchase agreements have been arranged.</p>
<p>Are there any challenges to utilizing merchantable material? If yes, please provide details below.</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>There is extensive blowdown, dead standing and ladder fuels throughout the Prescription area. Much of the volume that is down on the ground and overlapping has be dead and down for many years now. The hope is that the merchantable stems can be separated out efficiently and effectively from the stems that cannot to aid in a seamless flow of merchantable timber from the Prescription area. The plan would then be for the non-merch material to also potentially be shipped to a biomass facility, or potentially that a grinding unit would arrive on site to process the debris. Alternatively, debris may be left on site for a small period of time so that community members may come and load the material for firewood.</p>

TREATMENT SPECIFICATIONS SUMMARY	
TU 1	TREE REMOVAL/RETENTION STRATEGY BY SIZE/SPECIES (Summarize specifications identified in table above)
1	<p><b>Silviculture Systems:</b> Clearcut with Reserve (CCRES)</p> <p><b>Treatment Regimes:</b> Conventional Harvest or Forwarder (HARV), Hazard Tree Removal (HTR), Surface Fuel Reduction (SFR), Mechanical Pile (MPILE) and potential for Burning (PILE BURN)</p>
2	<p><b>Silviculture Systems:</b> Clearcut with Dispersed Retention (CCDRET)</p> <p><b>Treatment Regimes:</b> Conventional or Forwarder Harvest (HARV), Hazard Tree Removal (HTR), Surface Fuel Reduction (SFR), Mechanical Pile (MPILE) and potential for Burning (PILE BURN)</p>
TU 1 - TREATMENT SPECIFICATION RATIONALE	
<p>Treatment activities will utilize a Clearcut with Reserve silviculture system which primarily requires the use of mechanical treatment methods. Initial treatment phases will remove remnant hazardous overstory fuels consisting of 140.1 m<sup>3</sup>/ha hybrid spruce and lodgepole pine – approximately 63.5% of this volume is dead potential lodgepole pine. Secondary treatment phases will require surface fuel reductions to the specified targets by means of mainly mechanical methods, (with the potential for manual treatment methods). Final treatment phases will require surface fuel reductions to the specified targets by means of manual/mechanical piling. Treatment activities are expected to transition stands from a C-2 fuel type (Boreal Spruce *with MPB affected stands) to a C-6 (Conifer Plantation) and reduce surface fire intensities significantly.</p> <p>To reduce predicted fire behaviour the following treatment specifications have been applied:</p> <ul style="list-style-type: none"> <li>- Retain all live deciduous trees except where their removal is necessary to address a safety concern.</li> <li>- Remove all live and dead overstory and understory coniferous trees unless the tree is to be retained to achieve biodiversity objectives or the tree has been identified as a wildlife habitat or cultural heritage feature.</li> <li>- Reduce &lt;7.0 cm surface fuel loads to 0.5 kg/m<sup>2</sup> (+/- 0.25 kg/m<sup>2</sup>).</li> <li>- Reduce &gt;7.0 cm surface fuel loads to 2.5 kg/m<sup>2</sup> (+/- 0.5 kg/m<sup>2</sup>).</li> </ul>	
TU 2 - TREATMENT SPECIFICATION RATIONALE	
<p>Treatment activities will utilize a clearcut with Dispersed Retention silviculture system to be carried out using primarily mechanical treatment methods. Initial treatment phases will remove dead or otherwise hazardous overstory trees. The removal of live overstory and understory trees will reduce continuity between fuel strata and accommodate the recovery of treatment fibre and residues. Secondary treatment phases will mechanically (and potential manual methods), thin understory trees to reduce vertical and horizontal continuity to overstory retention. Final treatment phases will require surface fuel reductions to the specified targets by means of manual/mechanical piling. Treatment activities are expected to transition stands from a C-2 fuel type (Boreal Spruce *with MPB affected stands) to a C-6 (Conifer Plantation) and reduce surface fire intensities significantly.</p> <p>To reduce predicted fire behaviour the following treatment specifications apply:</p> <ul style="list-style-type: none"> <li>- Remove all dead overstory and understory trees except where the tree is to be retained to achieve biodiversity objectives or the tree has been identified as a wildlife habitat or cultural heritage feature.</li> <li>- Retain all live deciduous trees except where their removal is necessary to address a safety concern.</li> <li>- Retain 350 sph (±100 sph) of live L1 coniferous trees.</li> <li>- Retain up to 250 sph (±50 sph) of live L2 coniferous trees.</li> <li>- Recruitment between L1 and L2 conifers stocking is acceptable to a maximum total target conifer stocking of 600 sph (±100 sph).</li> <li>- Thinning from below to a height of 4.5 m is only required on residual coniferous trees where contiguous crown ratio of &gt;50% coverage exists.</li> <li>- Substitution of deciduous stems (where they exist) for coniferous stocking is acceptable.</li> <li>- Remove all L3 and L4 understory trees, (where they exist).</li> <li>- Reduce &lt;7.0 cm surface fuel loads to 0.5 kg/m<sup>2</sup> (+/- 0.25 kg/m<sup>2</sup>).</li> <li>- Reduce &gt;7.0 cm surface fuel loads to 2.5 kg/m<sup>2</sup> (+/- 0.5 kg/m<sup>2</sup>).</li> </ul>	

TU 1: STAND AND STOCK TABLE DATA									
Species and Diameter Class <sup>1</sup>	Crown Base Height Range (m)	Average Tree Height (m)	STEMS PER HECTARE (sph)			VOLUME PER HECTARE (m <sup>3</sup> /ha) <sup>2</sup>			Basal Area (m <sup>2</sup> )
			Existing	Cut	Leave	Existing	Cut	Leave	
<b>Layer 1 (≥ 22.5 cm - 27.5 cm dbh)</b>									
Pl	-	25	232	232	0	86.8	86.8	0	15.3
Sx	3.2	21	63	63	0	12.5	12.5	0	2.0
Bl	2.8	18	97	97	0	33.3	33.3	0	5.2
Total Dead Potential			235	235	0	80.0	80.0	0	14.4
Total Live			157	157	0	52.6	52.6	0	8.1
Total All Species		22	392	392	0	132.6	132.6	0	22.5
Total Conifers		22	392	392	0	132.6	132.6	0	22.5
<b>Layer 1 (≥ 17.5cm - 22.5 cm dbh)</b>									
Pl	-	18	241	241	0	37.6	37.6	0	7.0
Sx	3.3	18	33	33	0	4.6	4.6	0	0.9
Bl	2.7	17	57	57	0	6.0	6.0	0	1.5
Total Dead Potential			215	215	0	31.2	31.2	0	6.1
Total Live			116	116	0	17	17	0	3.3
Total All Species		18	331	331	0	48.2	48.2	0	9.4
Total Conifers		18	331	331	0	48.2	48.2	0	9.4
<b>Layer 1 (≥ 12.5 cm - 17.5 cm dbh)</b>									
Pl	5.6	17	549	549	0	39.8	39.8	0	10.1
Total Dead Potential			427	427	0	29	29	0	7.8
Total Live			122	122	0	10.8	10.8	0	2.3
Total All Species		17	549	549	0	39.8	39.8	0	10.1
Total Conifers		17	549	549	0	39.8	39.8	0	10.1
<b>TOTALS: Layer 1</b>									
<b>Total Layer 1 - All Species (Conifers Only)</b>	<b>3.5</b>	<b>20</b>	<b>1,272</b>	<b>1,272</b>	<b>0</b>	<b>220.6</b>	<b>220.6</b>	<b>0</b>	<b>42.0</b>

TU 1: SURFACE FUEL LOADING (kg/m <sup>2</sup> )					
Size Class (cm)	Existing (kg/m <sup>2</sup> )	Existing Distribution	Target (kg/m <sup>2</sup> )	Target Distribution	Methodology Used
Fine Woody Debris (<=7cm)	0.83	Moderately continuous distribution with accumulations associated with suspended and jackpotted lodgepole pine.	0.5 kg/m <sup>2</sup> (+/- 0.25 kg/m <sup>2</sup> )	Reduce to target levels with an acceptable range of ±0.25 kg/m <sup>2</sup> . Maintain poor continuity between residual pieces and avoid creating aggregations.	Line Intersect Sampling Method
Large Diameter Woody Debris (>7cm – 20cm)	4.34	Continuous distribution of lodgepole pine damaged by mountain pine beetle as well as some hybrid spruce damaged by wind. Pieces typically have a decay class of 2.	2.5 kg/m <sup>2</sup> (+/- 0.5 kg/m <sup>2</sup> )		
Coarse Woody Debris (CWD) (>20cm)	7.82				
<b>Crown Closure (%): 22</b>	<b>Existing Total: 12.99 kg/m<sup>2</sup></b>		<b>Target: 3.0 kg/m<sup>2</sup> (+/- 0.75 kg/m<sup>2</sup>)</b>		

<sup>1</sup> Modify diameter classes as required to suite treatment.

<sup>2</sup> A professional estimate is required for any merchantable cutting

TU 2: STAND AND STOCK TABLE DATA									
Species and Diameter Class <sup>3</sup>	Crown Base Height Range (m)	Average Tree Height (m)	STEMS PER HECTARE (sph)			VOLUME PER HECTARE (m <sup>3</sup> /ha) <sup>4</sup>			Basal Area (m <sup>2</sup> )
			Existing	Cut	Leave	Existing	Cut	Leave	Existing
<b>Layer 1 (≥ 12.5 cm dbh)</b>									
Pl	5.6	20	1022	877	145	164.2	140.9	23.3	32.4
Sx	3.2	19.5	96	0	96	17.1	0	17.1	2.9
Bl	2.7	17.5	154	0	154	39.3	0	39.3	10.1
Total Dead Potential			877	877	0	140.2	140.2	0	28.3
Total Live			395	0	395	80.4	0	80.4	13.7
Total All Species		19	1,272	877	395	220.6	140.2	80.4	42.0
Total Conifers		19	1,272	877	<b>395</b>	220.6	140.2	<b>80.4</b>	42.0
<b>Layer 2 (≥ 7.5cm - 12.5 cm dbh)</b>									
Sx	0.6	8.5	265	0	265	4.6	0.0	4.6	2.7
Bl	0.3	6.6	200	200	0	3.2	3.2	0	2.0
Total Dead Potential			0	0	0	0	0	0	0
Total Live			465	200	265	7.8	3.2	4.6	4.7
Total All Species		7.6	465	0	265	7.8	3.2	4.6	4.7
Total Conifers		7.6	465	0	<b>265</b>	7.8	3.2	4.6	4.7
<b>Layer 3 (≥1.3 m ht. - 7.5 cm)</b>									
Sx	0.1	2.2	255	255	0	-	-	-	-
Bl	0.1	1.8	50	50	0	-	-	-	-
Total Dead Potential			0	0	0	-	-	-	-
Total Live			305	305	0	-	-	-	-
Total All Species		2.0	270	270	0	-	-	-	-
Total Conifers		2.0	270	270	0	-	-	-	-
<b>Layer 4 (&lt; 1.3 m height)</b>									
Sx	0.1	0.6	200	220	0	-	-	-	-
Bl	0.1	0.5	135	135	0	-	-	-	-
Total All Species		0.55	335	335	0	-	-	-	-
Total Conifers		0.55	335	335	0	-	-	-	-

<sup>3</sup> Modify diameter classes as required to suite treatment.

<sup>4</sup> A professional estimate is required for any merchantable cutting

TU 2: SURFACE FUEL LOADING (kg/m <sup>2</sup> )					
Size Class (cm)	Existing (kg/m <sup>2</sup> )	Existing Distribution	Target (kg/m <sup>2</sup> )	Target Distribution	Methodology Used
Fine Woody Debris (</=7cm)	1.19	Moderately continuous distribution with accumulations associated with suspended and jackpotted lodgepole pine.	0.5 kg/m <sup>2</sup> (+/- 0.25 kg/m <sup>2</sup> )	Reduce to target levels with an acceptable range of ±0.25 kg/m <sup>2</sup> . Maintain poor continuity between residual pieces and avoid creating aggregations.	Line Intersect Sampling Method
Large Diameter Woody Debris (>7cm – 20cm)	4.20	Moderately continuous distribution of lodgepole pine damaged by mountain pine beetle as well as some hybrid spruce damaged by wind. Pieces typically have a decay class of 2.	2.5 kg/m <sup>2</sup> (+/- 0.5 kg/m <sup>2</sup> )	Reduce below target levels with an acceptable range of ±0.5 kg/m <sup>2</sup> . Ensure poor continuity between retained pieces and avoid creating aggregations.	
Coarse Woody Debris (CWD) (>20cm)	4.65				
<b>Crown Closure (%): 24</b>		<b>Existing Total: 10.04 kg/m<sup>2</sup></b>	<b>Target: 3.0 kg/m<sup>2</sup> (+/- 0.75 kg/m<sup>2</sup>)</b>		

BIODIVERSITY AND FOREST HEALTH CONSIDERATIONS AND TARGETS	
COARSE WOODY DEBRIS (CWD) RETENTION TARGET – Distribution	Using the May 2022 Chief Forester’s Guidance on Coarse Woody Debris Management on Wildfire Mitigation Treatments, the recommendation is to leave 5 CWD pieces per hectare in the SBS dk and 6 CWD pieces per hectare in the SBS mc2.
WILDLIFE TREE RETENTION TARGET	Retain up to 10 sph of large diameter (>30 cm dbh) dead potential stems as wildlife snags. Retain one (1) patch (20 x 20 m) of suitable secondary stand structure per hectare for wildlife habitat. Retention patches must be allocated so as to maintain discontinuity to adjacent stands, be anchored around deciduous and dead potential tree retention where practicable, and contain 400-600 sph of healthy poles and/or saplings (where they exist) with good form and vigour. Retain three (3) to five (5) high stumps (>1.0 m) per hectare adjacent to retention patches to ensure they do not incur damage as a result of skidding/yarding activities.
FOREST HEALTH- Should include sections such as agent, affected species, incidence rating, mortality, and targets	Stands have been assessed to be in poor condition due to the impacts of forest health factors. Lodgepole pine overstory trees exhibited high mortality (63.5%) as a result of historical mountain pine beetle infestation. Significant wind damage (37%) has occurred where dead lodgepole pine have succumb to wind and snow loads and have transitioned to the forest floor. Additionally, windthrow contributions from residual stand components are anticipated to increase as stand condition continues to decline and stand density decreases. Evidence of emerging mountain pine beetle infestation was not noted. <b>WINDTHROW RISK EVALUATION</b> Windthrow assessments indicate the proposed treatment activities will result in a moderate potential for future windthrow risk due to topographic location due to prevailing wind directions. Wind damage is common in stands that have been impacted insect occurrences mainly from historical mountain pine beetle infestations.

I. TREATMENT DESCRIPTION
MERCHANTABLE TIMBER CUTTING
<p><b>ROADS, LANDINGS AND TRAILS:</b>            Access to the units will be gained via Keefe’s Landing Road and existing block roads. Proposed access associated with the treatment areas will include three (3) road permit sections and three (3) on-block spur roads.</p> <p><b>All additional access structures required to accommodate the prescribed treatment activities, or otherwise necessitated by site conditions or to address a safety concern, must be approved by an authorized treatment supervisor.</b></p>
<p><b>FELLING:</b>            Felling activities will employ mechanical falling equipment (i.e. feller-bunchers, harvesters).            If or where any hand felling activities are used, they must be carried out by Fallers certified to the BC Faller Training Standard (BCFTS) with the skills and experience to achieve the treatment specifications without damaging residual stand components.</p>
<p><b>YARDING/SKIDDING:</b>            Conventional ground-based primary transport equipment (i.e. rubber-tired skidders, forwarders, etc.) will be utilized to carry out skidding/yarding activities. If rubber-tired skidders are utilized, retain high stumps (&lt;1.0 m in height) adjacent to retained trees to prevent retention from incurring damage as a result of yarding and skidding activities.</p>
<p><b>LOADING AND HAULING:</b>            Loading activities will be carried out within the right of way of proposed access structures and any required landings. Hauling activities will be carried out using an appropriate logging truck configuration for the harvest systems employed and processing facility requirements.</p>
<p><b>SLASH DISPOSAL:</b>            Treatment residues and existing downed woody material in excess of prescribed &gt;7.0 cm targets will be brought to road right of ways to facilitate biomass utilization where practicable. Material should be marketed to local processing facilities where a biomass fibre recovery opportunity exists. Where a biomass recovery opportunity does not exist alternative markets/users should be explored, or the material should be piled and burned on site.            The quantity and distribution of biomass resulting from initial mechanical treatment phases will vary with the harvest systems used. Roadside processing may improve biomass recovery opportunities relative to processing at the stump, especially where selection systems have been proposed. Processing at the stump, while improving other objectives, will result in increased dispersed fuel loads and increase the requirement for fire hazard abatement activities.</p> <p><b>STRATEGIES TO IMPROVE BIOMASS UTILIZATION:</b></p> <ul style="list-style-type: none"> <li>- Aggregate treatment residues, unutilized dead and down material, and bucking waste within utilization requirements for biomass facilities within road right of ways.</li> <li>- Avoid incorporating mineral soil and other contaminants into piles.</li> </ul>
STAND MODIFICATION TREATMENTS
<p><b>BRUSHING:</b> Manual brushing treatments have not been prescribed.</p>
<p><b>PRUNING:</b> Pruning treatments have not been prescribed.</p>
<p><b>THINNING:</b> Thinning from below to a height of 4.5 m is only required on residual coniferous trees where contiguous crown ratio of &gt;50% coverage exists.</p>
<p><b>DEBRIS PILING:</b>            Un-utilized biomass – including treatment residues and residual downed woody material – in excess of prescribed surface fuel load reduction targets outside of right of ways will be aggregated into debris piles. Debris piles must be a minimum of ½ the height of the pile’s base width with taller piles being preferred. Surface fuels with a decay class of 4 or 5 do not contribute to surface fuel load calculations and may be retained on site.</p> <p><b>STRATEGIES FOR DEBRIS PILING:</b></p> <ul style="list-style-type: none"> <li>- Carry out debris piling activities in snow free conditions.</li> <li>- Construct piles in locations that prevent retention from incurring heat damage and crown scorching during pile burning activities (i.e. within natural openings).</li> <li>- Ensure piles contain a mix of material sizes and decay classes to facilitate effective ignition and complete combustion.</li> <li>- Avoid incorporating mineral soil and other non-combustible debris into piles.</li> </ul>

<p><b>PILE BURNING:</b></p> <p>Burning activities must be carried out in compliance with the Wildfire Act and its Regulation as well as the Environmental Management Act (EMA); namely the Open Burning and Smoke Control Regulation (OBSCR).</p> <p>The treatment area is within a Medium Smoke Sensitivity Zone (SSZ) as indicated by Smoke Sensitivity Zone map #38 – Nechako River (93F). All open burning activities within the Keefe’s Landing WRR area are subject to the requirements of section 9, 10, 11, 13, 14, and 15 of OBSCR. However, the FTU falls under a plan for community wildfire risk reduction – the Nadina South Side Wildfire Risk Reduction Tactical Plan – and therefore may be carried out in accordance with section 23 of OBSCR where open burning activities are anticipated to last less than one (1) day, or under the conditions outlined in an approval issued under section 15 of the EMA.</p> <p>No Private residences or business buildings have been identified &lt;150 m of the treatment area</p> <p>If pile burning activities will be carried out in a manner that meets the definition of a Category 3 Open Fire, as defined by the Wildfire Regulation, a Burn Registration Number (BRN) will be required. A BRN can be obtained from BCWS by calling 1-888-797-1717 or emailing hpr.1800@gov.bc.ca.</p> <p><b>STRATEGIES FOR PILE BURNING:</b></p> <ul style="list-style-type: none"> <li>- Ensure all piled debris is dry and seasoned as per the definition provided by the OBSCR.</li> <li>- Obtain custom venting forecasts to identify optimal burning opportunities.</li> <li>- Consider the utilization of an Air Curtain Burner.</li> </ul>
<p><b>MULCHING:</b> Mulching treatments have not been prescribed.</p>
<p><b>MASTICATION:</b> Mastication treatments have not been prescribed.</p>
<p><b>GRINDING:</b></p> <p>In the event that debris can sold to a biomass facility, it is likely that a grinding unit will come directly to the site to prepare the debris into the exact specifications to be shipped via a chip transport truck. If this phase is planned to occur, ensure that road access is maintained to all debris piles locations.</p>
<p><b>PRESCRIBED FIRE:</b> Prescribe Fire treatments have not been prescribed.</p>
<p><b>PLANTING:</b></p> <p>Fire Management Stocking Standards are not provided in the Agreement Holders current approved FSP and therefore an amendment to the Chinook CFA FSP 2016 stocking standards is being proposed. It is recommended that the Wildfire Risk Reduction stocking standard be requested for all Chinook CFA Wildfire Risk Reduction project areas as these standards are in line with the <i>BCWS Fuel Management Prescription Guidance 2022</i>.</p>
<p><b>OTHER:</b> N/A</p>
<p><b>AUTHORIZATION AND TIMBER TENURE</b></p>
<p><b>FRPA Section 52(1)(b):</b></p> <p>The Agreement Holder (CFA:K4R) maintains the timber rights for all merchantable timber harvested as a result of treatment implementation unless relinquished by the CFA holder and authorized by FPR Section 52 (1) (b).</p>
<p><b>Forestry License to Cut (FLTC):</b> Not anticipated.</p>
<p><b>Park Use Permit:</b> N/A</p>
<p><b>Road Permit or Road Use Permit:</b> Three new Sections for R21201 will be applied for with this Prescription area.</p>
<p><b>Other (i.e. local government, utilities, etc.):</b> N/A</p>

<b>J. POST TREATMENT</b>
<p><b>EXPECTED VEGETATION RESPONSE:</b>            Treatment activities are anticipated to result in a moderate vegetative response. Increases to shrub and herbaceous cover and the ingress of various grasses is expected throughout the treatment areas. The establishment of coniferous regeneration is expected to be variable, although site disturbance associated with treatment activities has the potential to promote root suckering where trembling aspen stand components exist.</p>
<p><b>ADDITIONAL TREATMENTS OR MAINTENANCE:</b>            Where clearcut systems have been employed, carry out stand monitoring at an interval that aligns with the required silvicultural assessments. The results of silviculture assessments will inform the mid to long term requirement for maintenance.</p>
<p><b>SILVICULTURE OBLIGATIONS:</b> Do silvicultural obligations apply to the treatment area? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p><b>PLANTING:</b> Is planting a treatment identified in this prescription or required as a legislative obligation? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>            In SU 1 (both TU 1 and TU 2) an even-aged stocking standard has been applied as is shown in the table below.</p>

<b>STOCKING STANDARDS:</b>													
<b>APPLICABLE EVEN-AGED STOCKING STANDARDS for all variations of Clearcut Silviculture Systems:</b>													
TU	SU	Stocking Standard ID	Species (Pref.)	Species (Accep.)	Well-Spaced Stem/ha				Minimum Height (m)			Regen Delay	Free Growing (years)
					TSS	MSS		MITD	PI	Others	RTH (%)		
						Pref. & Acc.	Pref.						
1 / 2	1	TBD	PLI SX FDI LW AT EP AC	-	1200	700	600	2.0	2.0	1.0	-	4	20

<b>K. Outstanding Works</b>
1.) Obtain the appropriate authorizations for the FRPA Section 52(1)(b) and for the three new sections required to R21201 road permit.
2.) Obtain District Manager approval for the proposed alternative stocking standards, or upon the approval of the Chinook CFA:K4R FSP adopt the applicable fire management stocking standards if appropriate.
3.) If required, obtain the appropriate approval(s) – under section 15 of the EMA – to exempt pile burning activities from the requirements of sections 9, 10, 11, 13, 14 and 15 and Part 3 of OBSCR.
4.) Obtain the appropriate authorizations or exemptions for those portions of the treatment area that are within a Priority Deferral Area identified by the Old Growth Strategic Review and the Old Growth Technical Advisory Panel.

<b>L. ADMINISTRATION</b>	
<b>PREPARATION</b>	
FOREST PROFESSIONAL NAME ( <i>Printed</i> ): Jennifer Hill, RPF	FOREST PROFESSIONAL SIGNATURE: 
MEMBER NUMBER: 3889	DATE: 2023-02-06

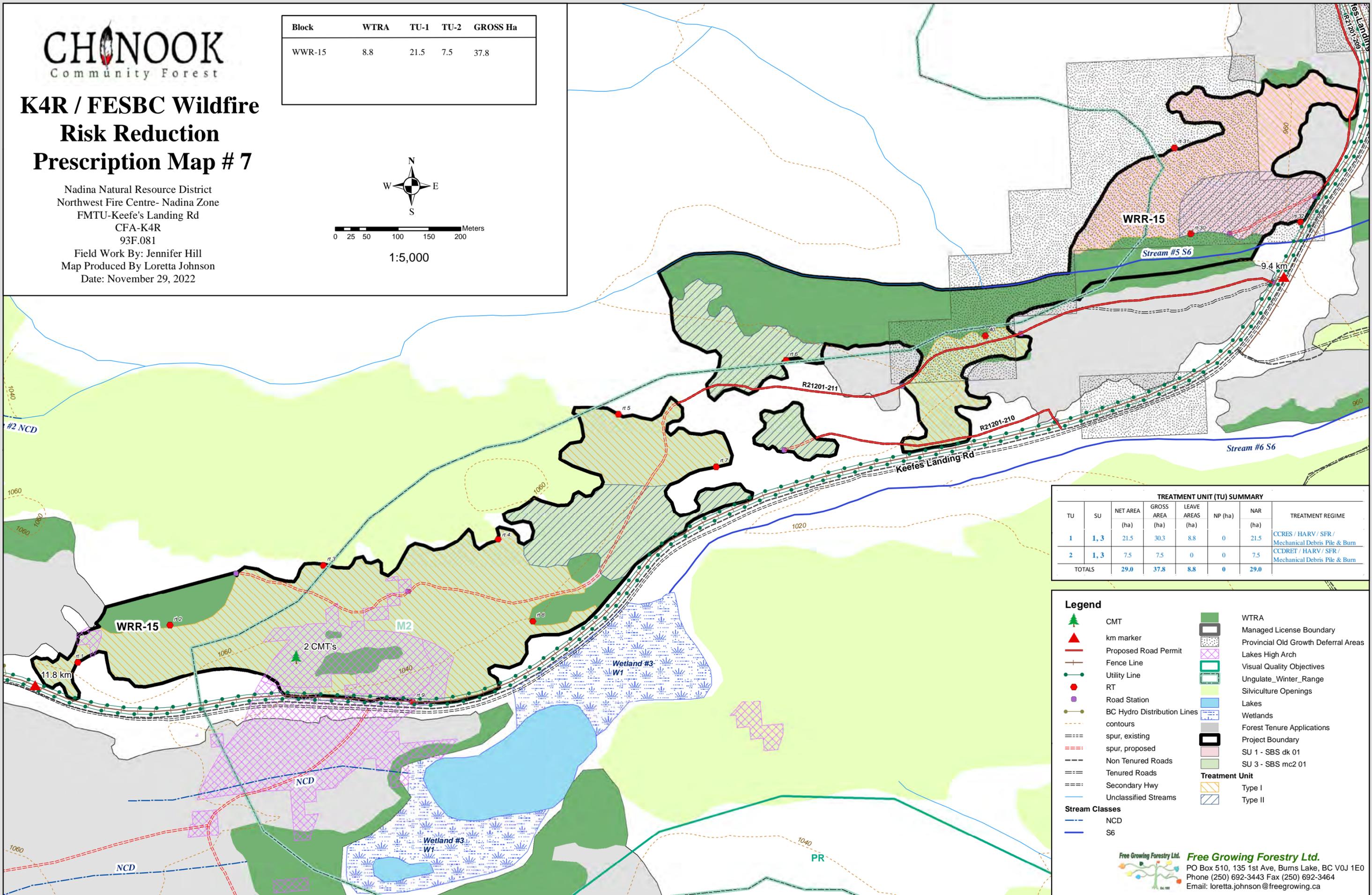
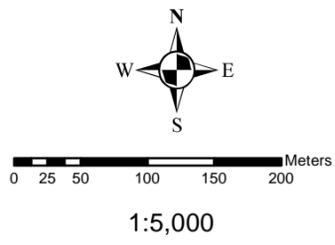
<b>M. ATTACHMENTS</b>			
MAPS:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	FIELD DATA CARDS:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
WUI WTA Plots and Photos:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	CRUISE DATA:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
AIR PHOTOS/IMAGERY:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	BURN PLAN:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
MODELING/DATA ANALYSIS:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	OTHER: <a href="#">Migratory Bird Nest Ranking Spreadsheet</a>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
		OTHER: <a href="#">WTA Worksheets</a>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
SURFACE FUEL LOADING DATA:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
TERRAIN STABILITY ASSESSMENT	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	VISUAL IMPACT ASSESSMENT	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Completed By:		Completed By:	
Date:		Date:	
ARCHAEOLOGY IMPACT ASSESSMENT Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		BIOLOGIST ASSESSMENT Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Completed By:		Completed By:	
Date:		Date:	
ADDITIONAL COMMENTS: MAPS: The following maps have been provided to support the prescribed activities: <ul style="list-style-type: none"> <li>• Prescription Map</li> <li>• Ortho Treatment Map</li> <li>• Location Map</li> </ul>			



Block	WTRA	TU-1	TU-2	GROSS Ha
WWR-15	8.8	21.5	7.5	37.8

# K4R / FESBC Wildfire Risk Reduction Prescription Map # 7

Nadina Natural Resource District  
 Northwest Fire Centre- Nadina Zone  
 FMTU-Keefe's Landing Rd  
 CFA-K4R  
 93F.081  
 Field Work By: Jennifer Hill  
 Map Produced By Loretta Johnson  
 Date: November 29, 2022



TREATMENT UNIT (TU) SUMMARY							
TU	SU	NET AREA (ha)	GROSS AREA (ha)	LEAVE AREAS (ha)	NP (ha)	NAR (ha)	TREATMENT REGIME
1	1, 3	21.5	30.3	8.8	0	21.5	CCRES / HARV / SFR / Mechanical Debris Pile & Burn
2	1, 3	7.5	7.5	0	0	7.5	CCDRET / HARV / SFR / Mechanical Debris Pile & Burn
TOTALS		29.0	37.8	8.8	0	29.0	

### Legend

- CMT
- km marker
- Proposed Road Permit
- Fence Line
- Utility Line
- RT
- Road Station
- BC Hydro Distribution Lines
- contours
- spur, existing
- spur, proposed
- Non Tenured Roads
- Tenured Roads
- Secondary Hwy
- Unclassified Streams
- WTRA
- Managed License Boundary
- Provincial Old Growth Deferral Areas
- Lakes High Arch
- Visual Quality Objectives
- Ungulate Winter Range
- Silviculture Openings
- Lakes
- Wetlands
- Forest Tenure Applications
- Project Boundary
- SU 1 - SBS dk 01
- SU 3 - SBS mc2 01

### Stream Classes

- NCD
- S6

### Treatment Unit

- Type I
- Type II

**Free Growing Forestry Ltd.**  
 PO Box 510, 135 1st Ave, Burns Lake, BC V0J 1E0  
 Phone (250) 692-3443 Fax (250) 692-3464  
 Email: loretta.johnson@freegrowing.ca

Rx 7 – Ground Fuel Photos:





Rx 7 – Ladder Fuels Photos:





Rx 7 – Crown Photos:



