



TENURE IDENTIFICATION

ORIGINAL

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
TA0167	-	2	BF524	82G071-1359	Mark	Mark Creek North	49 45 52 / 115 58 22

AREA UNDER THE PLAN

GROSS AREA (TAUP)	PAS	NP	WTRA / WTP	RESERVES	OTHER	NAR
20.2	1.1	0.0	5.0	0.0	0.0	14.2

ADDITIONAL COMMENTS

CONSISTENCY STATEMENT
This site plan is consistent with the objectives, results and strategies as outlined in the Rocky Mountain Forest Stewardship Plan (FSP) #601, 2017-2022. The block is contained within Operating Plan #19, which has been referred to the Watershed Committee for comment.

SOIL DISTURBANCE

SU	Max. Allowable Soil Disturbance (%)	Max. Amount TAS May Exceed MASD Prior To Rehab (%)	Max. Allowable Soil Disturbance For Roadside Work Areas (%)	Maximum Permanent Access Structures (%)
1	10.0	5.0	25.0	5.2
SU	CRITICAL SITE CONDITIONS THAT AFFECT THE TIMING OF OPERATIONS. AND HOW THEY AFFECT THE TIMING			
1	Operate during conditions that prevent excessive detrimental soil disturbance. Time operations to minimize the duration of active logging and potential impacts . Ensure surface drainage patterns are maintained during operations and by the completion of harvesting.			

RESULTS AND STRATEGIES

RESULT OR STRATEGY		HOW THE STRATEGY OR RESULT APPLIES TO THE SITE or RATIONALE (IF NOT APPLIED)
Community Watersheds		The block is within sub-basin 1 of the Mark Creek Community Watershed. The hydrological assessment report series by Alan Bates , P.Eng of Streamworks Consulting Inc. was reviewed; latest report available is dated September 15, 2017. The site plan is consistent with the report summary and recommendations.
Connectivity		The block overlaps a small area of a connectivity corridor (legal). The block is consistent with the Kootenay Boundary Higher Level Plan Order objectives for Connectivity Corridors with a surplus of old seral ESSFdk forest available outside OGMA areas in this landscape unit.
Cultural Heritage Resources		The Rocky Mountain Forest Stewardship Plan, Operating Plan #19 was referred to First Nations, and no traditional use or cultural heritage values were identified for the block. Protection of any identified cultural heritage site from disturbance or destruction is required under the Heritage Conservation Act. Forest management practices will cease and the Timber Sales Manager or his/her designate will be immediately notified if significant cultural or archaeological resource features are discovered during operations.
Invasive Plants		Invasive plants were observed along roadways in the vicinity of the block. They include sulphur cinquefoil, bull thistle, and blueweed. A review of the invasive plants provincial inventory and mapping database was conducted and no invasive plants were reported (last updated December 17, 2019). Measures to be carried out to prevent the introduction or spread of invasive plants, as required by the Timber Sales Manager: a. vehicles, mechanized equipment, culverts, bridges and cattle-guards are to be inspected for the presence of soil or plant material, including documentation on inspection forms, prior to being transported to or from work sites and, if present, plant and soil materials are to be removed; b. to reduce the available seedbed for invasive plants: i. grass seed exposed mineral soils on cut and fill slopes of new roads and trails during the first available spring or fall and not more than 12 months following construction; and ii. grass seed exposed soils on all new landings and rehabilitated areas during the first available spring or fall and not more than 12 months following the time of mineral soil exposure, except if the rehabilitated areas are to be revegetated through the planting of trees; and c. where grass seeding is undertaken, utilize high quality seed (a mix recommended by a MFLNRO range specialist, if available; otherwise Canada Common #1 Forage mix or better grade) to ensure that the introduction of invasive plant seed is minimized.

Riparian		<p>There is one stream associated with the block: R1/S4.The stream and its riparian reserve zone (RRZ) are contained within WTRA#1 which crosses the middle of the block. WTRA#1 is approximately two tree-lengths wide on either side of the stream. The required 30 meter riparian management zone (RMZ) is contained within WTRA#1.</p> <p>There are 3 non-classified drainages (NCDs) associated with the block. NCD1 is located within WTRA#1 and parallels R1/S4 to the east for approximately 50 meters before going subsurface.</p> <p>NCD2 and NCD3 are located outside the block approximately 65 meters and 85 meters to the west, respectively. They are crossed by proposed permanent road FSR0252.70 Mark Main Spur 8100.</p> <p>Trees must be felled and yarded away from all riparian features where practicable . Any debris entering a riparian feature as a result of harvesting operations must be removed upon completion of harvesting activities. In addition, roadside work areas are not permitted within a RMA.</p>
Soils		<p>Temporary: The amount of temporary access structures (TAS) combined with other soil disturbance caused by random skidding and mechanical falling must not exceed the maximum of 10% of the Net Area to Reforest (NAR); the maximum of 10% may temporarily be exceeded by 5% to allow for additional temporary access structures, but they must be rehabilitated by the completion of harvesting.</p> <p>Permanent: The amount of permanent access structures (PAS) account for 5.2% of the block and is within the applicable performance standard of 7%.</p>
Visual Quality		The Mark Creek watershed has a visual quality objective of partial retention for areas visible from specified viewpoints as per the Mark Creek Integrated Watershed Management Plan , Sept. 15, 2017 (IWMP). A preliminary visual impact analysis (VIA) determined that the block is not visible from these viewpoints or the LRDW visual landscape inventory (VLI) viewpoints. A full VIA is not required.
Wildlife - Wildlife Tree Retention		The wildlife tree retention minimum target of 3.5% per block will be achieved by WTRA patches retained throughout the TSL. Total retention level for the block is 24.6%. This contributes to the 15.9% WTRA area retained throughout the TSL to achieve the minimum target of 7% by TSL.

STOCKING REQUIREMENTS

SU	NAR	STANDARDS ID #	OTHER PERFORMANCE STANDARDS
1	14.2	1062163	FDI/LW #203 - recommended for climate change adaptation; BL #201- Max 50% of pref & acc WS trees; BL #208 - refer to specific advance regeneration requirements. **Additional information or requirements are contained in the text of the latest version of the approved Rocky Mountain Natural Resource District Stocking Standards and is the complete standard (more footnotes apply).
COMMENTS	<p>Footnotes as per the BCTS stocking standards reference guide for LMH71-East Kootenay (March 2019):</p> <p>FDI/LW #9 – suitable on warm aspects; FDI/LW #14 – suitable at lower elevations; FDI/LW #203 – recommended on sites for climate change adaptation; BL #201 – Max 50% of pref and acc WS trees; BL #208 - In addition to the free growing damage criteria, Bl advanced regeneration can be counted as well-spaced only where it meets the following criteria at free growing in even aged management:</p> <ul style="list-style-type: none">• apical dominance > 1 (as measured by comparing ratio of leader height to length of most recent branch whorl) at free growing• 75% live crown;• no scars, forks, crooks, or sweeps, and;• where it is < 1.5 m ht at time of harvest.		

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2020 09 04	YES

RPF PRINTED NAME	RPF'S SIGNATURE and SEAL
SCOTT BLISSETT	
DATE SIGNED	
2020/09/04	
I certify that I have reviewed this document and, while I did not personally supervise the work described, I have determined that this work has been done to standards acceptable of a Registered Professional Forester.	

Map attached forms an integral part of the site plan.

SILVICULTURE PLAN

ORIGINAL

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
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ECOLOGICAL INFORMATION

SU	Ecology Unit	Area	Zone	Subzone	Variant / Phase	Site Series (series - %)	Elevation Avg (m)	Slope Avg (%)	Aspect	Slope Position	Rooting Depth (cm)	Soil Texture
1	A	14.2	ESSF	dk	1	104-100	1,680	23	W	Middle Slope	26	SIL

STOCKING REQUIREMENTS				
ASSESSMENT DATES				
Standard Unit	Standards ID	Regen Delay (vrs)	Freegrow Early (vrs)	Freegrow Late (vrs)
1	1062163	7	0	20
Min/Max Elevation Regime: 1620 / 1720				

SU : 1REGENERATION LAYER														
PREFERRED SPECIES				ACCEPTABLE SPECIES			POST SPACING DENSITY(sph)				MAX CONIFEROUS (sph)			
Species		Min Ht. (m)	Footnotes	Species		Min Ht. (m)	Footnotes	Min	3000	Max	4000			
BI	Subalpine Fir	0.8		Pa	Whitebark Pine	0.8		WELL SPACED TREES (sph)						
Fdi	Douglas Fir - Interior	0.8				Target Pref/Acc		Minimum Pref/Acc		Minimum Pref		Min Horizontal Dist. Pref/Acc (m)		
Sx	Hybrid Spruce (SE x SW)	0.8				1200		700		600		2.0		
Pli	Lodgepole Pine - Interior	1.6									Height Relative to Competition (%)			
Lw	Western Larch	1.6									125			

OTHER REQUIRED STOCKING INFORMATION
Footnotes as per the BCTS stocking standards reference guide for LMH71-East Kootenay (March 2019): FDI/LW #9 – suitable on warm aspects; FDI/LW #14 – suitable at lower elevations; FDI/LW #203 – recommended on sites for climate change adaptation; BL #201 – Max 50% of pref and acc WS trees; BL #208 - In addition to the free growing damage criteria, BI advanced regeneration can be counted as well-spaced only where it meets the following criteria at free growing in even aged management: • apical dominance > 1 (as measured by comparing ratio of leader height to length of most recent branch whorl) at free growing • 75% live crown; • no scars, forks, crooks, or sweeps, and; • where it is < 1.5 m ht at time of harvest.

ACTIVITIES

SILVICULTURE ACTIVITY COMMENTS	
ACTIVITY	COMMENT

MANAGEMENT STRATEGY

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

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
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