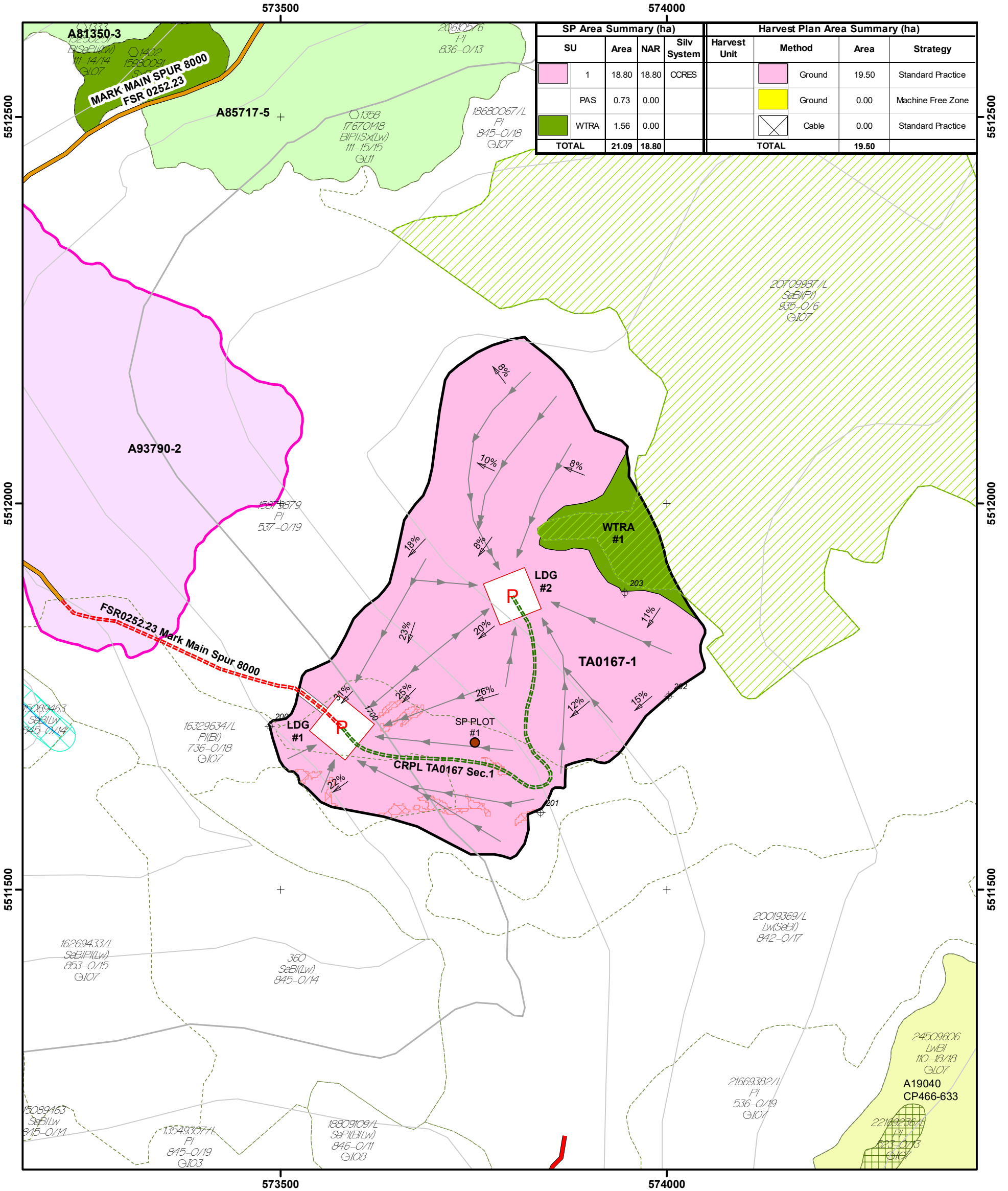






BCTS
BC Timber Sales

East Kootenay Field Unit

HARVEST PLAN and SITE PLAN MAP

TSL: TA0167
Block: 1

Location: Mark Creek

Map Reference: 082G.071

Opening #: 82G071-1357

UBI #: BF523

UTM	Zone	Easting	Northing
Grid	115737915	5511813	

Latitude: 49° 45' 15"N Longitude: 115° 58' 32"W

MFLNRO Region: Kootenay/Boundary
MFLNRO District: Rocky Mountain

Elevation Range:

Minimum: 1660m Maximum: 1760m



File: ..\MARK_CRK\TA0167\SP\MXD
TA0167_i3_map_SP_Blk1.MXD
Date: 08 January 2020

Block Boundaries

- Proposed Block Boundary

Permanent Access Structures

- Existing Permanent Landing
- Proposed Permanent Landing

Reserves

- Wildlife Tree Reseve Area
- Internal Reserve

Management Zones

- Machine Free Zone
- Riparian Management Zone
- Riparian Reserve Zone
- Riparian Management Area
- Old Growth Management Area (OGMA)

Development Block Features

- Highway / Paved Road
- Forest Service Road
- Forest Service Road, Retired
- Road - Existing
- Road - Existing, Retired
- Trail - Existing
- Proposed Road - Permanent
- Proposed Road - Temporary
- Proposed Trail
- Recreation Trail
- Transmission Line
- Pipeline
- Fence Line
- GPS Station
- Proposed/Existing Culvert
- Proposed/Existing Bridge
- Proposed Designated Skid Trail Crossing
- Cattleguard
- SP Plot
- Private Land
- Skidding Direction
- Yarding Direction
- Deflection Line

Harvest Methods

- Ground Harvest Area
- Cable Harvest Area

Adjacent BCTS Blocks (Planning Status, Block Status)

- Planning or 196
- Planning or 196, WIP
- OPC, PP or WIP
- OPC, ADV
- PROP, PP
- PROP, WIP or ADV
- SP x
- Deferred
- HB or LC
- RG or SR
- GU
- FG not GU
- FG
- Surrendered

Natural Block Features

- Stratum Boundary
- Slope Break
- Gully/Dry Draw
- Exposed Bedrock
- Side Slope
- Areas with Slopes > 35%
- Forest Cover Typeline

Streams, Lakes and Wetlands

- Riparian Streams (Class S1 - S6, NCD, NVC)
- Riparian Wetland (Class W1 - W5, NCW)
- Lake (Class L1 - L4, NCL)
- Riparian Stream# - Reach# / Stream Class
- Reach Break

Contours

- Index - 100m interval
- Intermediate - 20m interval

True North

Magnetic North

Magnetic Declination: 14° 14'E

0 50 100 150

metres

UTM11, NAD83

Scale: 1:5 000

1.5 RIPARIAN ASSESSMENT						
Block	Riparian I.D. and Class	RMA	SU	Width (m)	BA or SPH Retained	Comments (Indicate if in a Community Watershed)
1	NA	NA	NA	NA	NA	NA
Management Strategies:						
No riparian areas within the block were observed and no mapped riparian features are within 100m of block boundaries.						

Safety Highlights:
The harvest area contains slope pitches exceeding 35%. The Licensee should be aware of WorkSafe BC regulations (Section 26 of Occupational Health & Safety Regulation) surrounding harvesting on steep slopes.

Leave Tree Specifications:											
Table 1. - Layer 1 Reserved Timber											
Block	TU / HU	Selection Priority	Species	Size	Stems per Hectare			Distribution ¹			
					Target	Minimum	Maximum	S	G	I	R
1	1	1	Lw	≥ 25cm dbh	15	0*	25	✓	✓	✓	✓
1	1	1	Lw	≥ 45cm dbh	All	n/a	n/a	✓	✓	✓	
1	1	1	At, Ac, Ep	≥ 17.5cm dbh	All	n/a	n/a	✓	✓	✓	
<div>Additional Requirements/Comments:</div> <div>* The minimum sph remaining post-harvest may only occur where there is a lack of suitable reserve stems pre-harvest. This block must be harvested to achieve the target reserve tree density where suitable leave trees exist pre-harvest; however, voids of 1 hectare or greater may exist post-harvest due to natural stand variability where no suitable reserve stems are available pre-harvest. The maximum reserve stems on any given hectare should not exceed 25 sph.</div> <div>1. Retain western larch (Lw) ≥ 25cm dbh with preference for the largest trees.</div> <div>2. Reserve all Lw ≥ 45cm dbh where they exist and where practicable[†], regardless of the spacing. These stems count towards the leave tree target.</div> <div>3. Reserve all deciduous trees where they exist and where practicable[†]; very few observed during field recce phase and cruising.</div> <div>4. BCTS reserves the right to pre-mark reserve stems as per above leave tree specifications.</div> <div>[†] E.g. of impracticable situation: leave tree is within a proposed road clearing corridor or a constrained excavated skid trail.</div>											
¹ Distribution Types: S: Single Trees, G: Groups of Trees, I: Irregularly Distributed, R: Regularly Distributed											
Note: Safety is a priority when conducting operations near reserved timber. Refer to TSL Schedule “A”, Section 2.00 regarding Dangerous Trees.											
Table 2. - Other Reserved Timber											
Non-Merchantable											
Block	TU / HU	Location(s)				Species	Size	Stems per Hectare			
								Target	Minimum		
1	1	Retain all good quality advanced understory, preferably in patches or clumps.				Sx, Bl, Lw, Pl	< 17.5cm, dbh and > 1.3m height	All	N/A		
Additional Requirements: N/A											
Dead Trees to be Stubbed (where Mechanical Falling is utilized)											
Block	TU / HU	Species	Size	Stubbing Height	Stems per Hectare			Distribution ¹			
					Target	Minimum	Maximum	S	G	I	R
1	1	All	≥ 30cm	2-5m	3	1	5	✓	✓	✓	
<div>Additional Requirements:</div> <div>1. Target stubs is an average to be achieved throughout block; voids of 1 hectare or greater may exist post-harvest due to natural stand variability.</div> <div>2. The stubbed snag should be left as high as practicable, up to 5m max.</div> <div>3. The stub should be created from obviously poor quality stems that are not merchantable (ie. Heavily scarred, rotten, or excessively swept butts).</div> <div>4. Preference should be given to creating stubs from the largest diameter stems.</div>											
Coarse Woody Debris											
Block	TU / HU	Species	Size		Number per Hectare		Distribution ¹				
					Target	Minimum	S	G	I	R	
1	1	All	> 10 cm in diameter at one end		> 4	4	✓	✓	✓		
<div>Additional Requirements/Comments:</div> <div>1. Retain a minimum of 4 logs per hectare, each > 10cm in diameter at one end.</div> <div>2. There is an estimated 175 pieces of CWD per hectare meeting the above size requirements, many of which are PI with 15cm dbh.</div> <div>3. Preference should be given to the largest diameter stems, dead trees with cavities, and/or trees suitable for wildlife use.</div>											
¹ Distribution Types: S: Single Trees, G: Groups of Trees, I: Irregularly Distributed, R: Regularly Distributed											
Harvest / Operational Constraints:											
<div>1. Operate during conditions that prevent excessive detrimental soil disturbance.</div> <div>2. Time operations to minimize the duration of active logging and potential impacts.</div> <div>3. Ensure surface drainage patterns are maintained during operations and by the completion of harvesting.</div> <div>4. Construction of excavated or bladed trails, while permitted in the block, should be minimized.</div> <div>5. Excavated or bladed trails will be fully reclaimed following harvesting.</div>											

Kootenay Business Area Field Marking Standards		
	Ribbon	Paint
Harvest Boundary	BCTS Block Boundary	
Falling Corners		FC#
WTRA Boundary	Reserve	
Reserve Boundary	Reserve	
Riparian Reserve Zone	Reserve	
Riparian Management Zone	Riparian Mgmt. Zone	
Management Zone	Management Zone	
Treatment Unit Boundary	Treatment Unit Boundary	
Reserve Trees		
Machine Free Zone	//// Machine Free Zone ///	
Cruising	Cruise Line	Plot Trees
Traverse Stations		
SP Plot Location		

	Ribbon	Paint
NCD & Stream Centers	Water Course	
Road P-Line		
Road Center Line	Road Centerline	
Landings	Landing	
Road Right of Way	R/W Boundary	
Road RP		
Culverts	Culvert	
Designated Crossing	Crossing	
Culvert RP Outside Right of Way		
Tail Holds / Guyline / Intermediate Supports		
Skid Trail / Back Spar Trail / Forwarding Trail	//// Trail ///	
Recce Ribbon / D-Line / Skyline Roads	////////	

I certify that the work described herein fulfills standards expected of a member of the Association of British Columbia Forest Professionals, and that I did personally supervise the work.

Scott Blissett, RPF - #3318

RPF PRINTED NAME

March 26, 2020

DATE SIGNED

RPF'S SIGNATURE and SEAL

