Operational Overview

Eniyud Community Forest

TENURE IDENTIFICATION

Region:	District:	TSA:	TSB:	License No.:	Timbermark:	Cutting Permit:	Cutblocks:	Mapsheet/Opening No.:
RCB	DCC	29	C	K2Z	K2Z012	012	ECF0006	92N.089

Area Under Tenure (ha):	Location:	Latitude:	Longitude:	Licensee:
ECF0006 – 201.5	Eagle Lake	51°53'42"N	124°20'25"W	Eniyud Community Forest

AREA SUMMARY, ECOLOGY AND STOCKING STANDARDS

CUTBLOCK	CUTBLOCK TAUP (Ha)	LT WTP	ST WTP	SU GROSS AREA	NP UNN	NP NAT	SU NAR	SU BEC (Dominant Site Series)	SU STANDARDS ID
ECF0006	201.5	24.6	4.4	172.5	9.9	-	162.6	1 – SBPSxc-01	1 – 1060514
TOTALS	**201.5**	**24.6**	**4.4**	**172.5**	**9.9**	**-**	**162.6**		

BLOCK OVERVIEW and HARVEST DESCRIPTION

- Species composition consists of Spruce (60%) and Pine (40%). The site it mostly zonal - 01 (50%), mixed with some wetter 04/06/05 areas. The forest floor is moderately well vegetated with small shrubs, herbs, and mosses. There is one S6 classified stream within the block.
- This block will be conventionally logged with good roadside decking opportunities.
- No harvesting constraints were noted during the cutblock or road layout phases of development.

DESCRIPTION OF WOOD QUALITY:

Block	Species Composition	Size (Merch ht/ DBH)	Net Merch Vol/ Tree (m^3)	Net Merch Vol/ ha (m^3)	Net Merch Total Vol (m^3)
ECF0006	Sx(6) Pli(4)	14.6m / 15.8cm	0.22m^3	247m^3/ha	40146m^3

Forest Health: 8.6% of the pine volume is considered grey attacked (dead) by Mountain Pine Beetle.

SU HARVEST DESCRIPTION

SU	Cutblock(s)	Harvest Method	Recommended Harvest Season	Harvest related comments
All	ECF0006	Conventional	Winter	• The block will be conventionally logged with good roadside decking opportunities. • Moist soils were noted in this block. • No other harvesting constraints were noted during cutblock or road layout phases of development. • Harvesting can occur when ground conditions are frozen or have adequate snowpack to support ground-based equipment without rutting or compacting the surficial soils.

TIMING RESTRICTIONS (LEGAL AND COMMITMENTS)

TIMING RESTRICTIONS FOR THE BLOCK

- This block should be winter logged to minimize the soil disturbance to areas with wetter soils.

HARVESTING SPECS

SU/ TU(s)	Layer	Diameters	HARVEST		LEAVE			Description
			Species	% of Stems	Species	% of Stems	Stems/ Ha	
All	All	>12.5	Pli	100%	Decid.	95%	-	• Retain 95% deciduous where available, safe and practicable to do so. If these stems are to be removed for safety, access or silviculture, they are to be left on site as CWD. These leave trees are retained for biodiversity.
All	2, 3 & 4	<12.5	N/A	N/A	Sx, Fd	100%	-	• Retain advanced regeneration of non-pine conifer species where practicable to do so. Preference is to leave these trees in clumps or as scattered stems with good form.
All	1 & 2	≥90 ≥44 ≥65 ≥35	N/A	N/A	Act At Fd Pl (non-merch)	-	0.5	• Retain Act ≥90 cm dbh, At ≥44 cm dbh, Fd ≥65 cm dbh or non-merchantable Pl ≥35 cm dbh, unless removal is required for safety, development or access. • These trees are to be retained to support Fisher Denning Habitat in the block. • Note these trees were not picked up by the cruise or noted during layout but may still exist in the block. • Target 0.5 stems/ ha or a total of 86 total stems across the block.
All	1	>27	N/A	N/A	Sx w/ rust broom	-	5.6	• Retain Sx>27cm with Rust Broom, unless removal is required for safety, development, or access. • These trees are to be retained to support Fisher Resting Habitat in the block. • Note these trees were not picked up by the cruise or noted during layout but may still exist in the block. • Target 5.6 stems/ ha or a total of 966 total stems across the block

FSP MANAGEMENT & MEASURES (FISH, WATER, WILDLIFE & BIODIVERSITY)

❖ FISH & SENSITVE HABITATS:

- ECF0006 and the associated roads are not within any fishery sensitive watersheds or adjacent to any areas identified as being Critical Habitat for Fish.
- ECF0006 and the associated roads are not adjacent to riparian feature being managed for salmon or dolly varden (bull trout).

❖ WATER MANAGEMENT:

- **Riparian Areas:**
  - There is one S6 stream within the harvest area with a 20% basal area retention target. This will be achieved through placement of WTRA's with 100% Basal area retention.
- **Community Watersheds:**
  - There are no community watersheds or licensed waterworks associated to this block.

❖ WILDLIFE:

- **Moose/ Mule Deer/ Caribou:**
  - Moose: ECF0006 and the associated roads are not within 1000m of a high value moose wetland management zone (HVMWMZ) and are not within 100m of a classifiable wetland or shrub-carr. No further management required.
  - Mule Deer: ECF0006 and the associated roads are not within a Wildlife Habitat Area for Mule Deer. No further management required.
  - Caribou: ECF0006 and the associated roads are not within a Wildlife Habitat Area for Mountain Caribou or Northern Caribou. Neither of these species were observed during the layout phase of the block. No further management required.
- **Furbearer Wildlife:**
  - At the conclusion of harvesting, where practicable, a minimum of 1 unburnt debris pile (woody debris >3m by >5m in dimension and mechanically piled >2m high) per hectare will be left in the block within a 100m of all classified riparian features.
- **Grizzly Bear:**
  - ECF0006 and the associated roads are not within a Grizzly Bear Wildlife Habitat Area or within a MODERATE, HIGH or VERY HIGH capability grizzly bear unit. No bear dens, avalanche tracks or run-out zones were identified within or adjacent to the proposed cutblock or roads. No further management required.
- **Species at Risk:**
  - A qualified professional (QP) has completed an assessment for the species listed below as they are in known potential habitat BEC Zones. As a result, the QP determined there were no occurrences of each species within the harvest area. However, if these species or any other species at risk are encountered during harvesting or road construction operations, staff and contractors are required to stop work and report through Tolko's EMS Procedures:
    - Lewis's Woodpecker

- Prairie Falcon
- Sandhill Crane
- Sharp-tailed Grouse
- White Pelican

  - The SAR CDC occurrence information is reflected in the drilldown dated 2021-10-13. If the cutting permit application for this block is not made within 12 months of the date stated above, the CDC occurrence report/ information must be re-run and reviewed prior to harvesting for any management implications.

- **Invasive Plants:**
  - When excavating or transporting material for use in road construction, ensure the overburden is cleared of invasive plants prior to excavation.
  - Grass seed any exposed mineral soil associated with road cut slopes, fill slopes, ditch lines and rights of way landings within one year of access construction.
  - Report previously un-identified invasive plant infestations through the Report-A-Weed application within 60 days of that infestation being identified.
  - If invasive plants are present (excluding bull thistle), remove plant material or soil from machinery, vehicles, personnel and pets prior to moving to a new site.

- **Migratory Birds (< Rank 3):**
  - This block is comprised of 13.6 ha's of Nest Density Ranking 4 and 2.8ha's of Nest Density Ranking 5.
  - Nesting Timing Window for the identified nesting zone is from April 11 to August 12.

❖ LANDSCAPE LEVEL BIODIVERSITY:

- **Wildlife Tree Retention Areas (WTRA):**

Block	Landscape Unit/ BEC Zone	WTRA Target (%)	In-block WTRA Retained	Comments
ECF0006	Tatla/Little Eagle/ SBPSxc	7%	14.3%	-

- **Old Growth Management Areas:**
  - ECF0006 and the associated roads do not overlap any Old Growth Management Areas

- **Block Adjacency:**
  - The following non-free growing blocks are adjacent to each other:
    - Proposed Blocks: ECF0001, ECF0004, ECF0006 and ECF0007.
    - Harvested Blocks: K2Z-007-7 (Stand age: 6-8) and K2Z-007-11 (Stand age: 8).
    - The combined gross area of these blocks is 352.6ha.

- **Patch Size Assessment:**
  - Harvesting of this block will create a 352.6ha aggregate in the Tatla/Little Eagle LU, in the LARGE patch size class. Harvesting of this block will not result in the patch distribution of the resulting seral stages in the Tatla/Little Eagle LU to deviate further from the target ranges outlined in table 5.7.1.1 of the FSP.

  - The current patch size distribution targets are met in the small size category, exceeded the medium category and are in a deficit in the large category. The required trend to meet the desired distribution over time is to create small openings, and group medium size openings into large openings.

- **Seral Stage:**
  - The proposed cutblock and roads are not within a seral deficit assessment unit. The Tatla/Little Eagle LU has a surplus of 21,592ha of M+O seral area.

SOIL CONSERVATION

SITE DISTURBANCE

HAZARD RATING (if logging methods other than cable or aerial are proposed)				SOIL CHARACTERISITICS (if temporary access structures are proposed)		SOIL DISTURBANCE LIMITS	
Soil				UNFAVOURABLE SUBSOIL		Max. allowable within the NAR (%)	Max. limits may be exceeded for Temp Access Structures (%)
SU(s)	Compaction	Displacement	Surface Erosion	Depth to (cm-cm)	Type		
SU 1	Low	Low	Moderate	N/A	N/A	10%	5%

ROADSIDE SOIL DISTURBANCE: 25.0 %

PERMANENT ACCESS STRUCTURES

Planned Proportion of Total Area Under the Prescription Allowed for Permanent Access Structures: 6.7%

SLOPE INSTABILITY INDICATORS:	No	Measures required to address terrain instability:	No	Bladed trails restricted:	No

Terrain Recommendations:

- The proposed cutblock and associated roads are outside of Unstable Terrain as defined in the FSP, no further work required.

REHABILITATION TIME FOR TEMPORARY ACCESS STRUCTURES

Maximum Allowable Time to Complete Rehabilitation (measured from completion of harvest): 1.0 year

TEMPORARY ACCESS MANAGEMENT

SU(s)	General Location (also refer to map)	Sediment Delivery Risk (in Community Watershed or above Domestic Intakes)	Max. Allowable Height of Cutbanks (m)	Average Height of Cutbanks (m)	Equipment to be Used (if other than Excavator)
All	N/A	N/A	1.5	1.0	Skidder or Dozer

Temporary Access Strategies:

- No location has been identified, but if the need to construct bladed trails arises, these trails are to be rehabilitated within one year following harvest.
- All trails (new or existing trails used for operations) are to be constructed in a manner that maintains or restores surface natural drainage (does not intercept, divert or concentrate drainage) both during and after construction, or ensure that the altered surface drainage pattern is compatible with the original natural surface drainage pattern by the earlier of the end of the construction, and the next freshet.

RESOURCE MANAGEMENT

ECOLOGY AND CRITICAL SITE CONDITIONS

SU	NET AREA	BEC (Dominant)	ELEVATION (m)			SLOPE (%)			SITE SERIES	ASPECT
			Low	High	Avg	Min	Max	Avg	Dominant	
SU 1	162.6	SBPSxc	1160	1360	1260	0	15	15	01	NW

BLOCK: ECF0006 - OPERATIONAL DIRECTION FOR RIPARIAN MANAGEMENT

Riparian ID	Riparian Class	RRZ Width (m)	RMZ Width (m)	Description and strategy for the Riparian Zone including purpose and extent of removal or modification of trees and residual basal area or density.
S6-A	S6	0	20	• RMZ RETENTION: The minimum RMZ retention level for this riparian feature is 20%. It will be achieved through placement of WTRA's with 100% basal area retention. Additional RMZ retention will include brush species, advanced regeneration, non-merchantable conifers and non-commercial stems. Wildlife trees, high value trees and deciduous trees removed for safety, where there is no other practicable option, must be stubbed and the cut portion left on-site. • STREAM BANK PROTECTION: Fall and skid trees away from stream S6A where it is practicable to do so. If a tree is felled across a stream, it will be removed concurrent with harvesting activities if removal will not damage the integrity of the stream bank or existing large organic debris. Where a tree is felled across a stream and removing the entire tree intact may cause stream bank damage, buck that tree at the stream bank, and only remove those portions of the stem that will not cause stream bank damage during removal • 5m MACHINE FREE ZONE (MFZ): A 5m MFZ has been established in the field on stream S6A, where ground equipment is not permitted
NCD's	-	-	-	• All NCD's have been marked in the field as per Field Marking Standard. i. limit the number of crossings and maintain natural drainage post-harvest / site prep ii. do not skid down the identified NCD iii. fall away / yard away from the identified NCD where safe to do so iv. do not pile slash or site prep over the identified NCD • 5m MACHINE FREE ZONE (MFZ): A 5m MFZ has been established in the field on all NCD's identified during layout, where ground equipment is not permitted.

OPERATIONAL DIRECTION FOR LAKESHORE MANAGEMENT

Lake Name	Lake No.	Lake Class	RRZ Width (m)	LMZ Width (m)	Area of LMZ (ha)	% LMZ Alteration	Description and strategy for Lakeshore Management Zone.
N/A							• There are no Lakeshore Management Zones associated to this block.

COARSE WOODY DEBRIS MANAGEMENT STRATEGIES

- FPPR sec.68 1(b), an agreement holder who carries out timber harvesting must retain at least the following logs on a cutblock:
  (b) ...a minimum of 4 logs per hectare, each being a minimum of 2m in length and 7.5cm in diameter at one end.
- In addition to the FPPR requirements noted above, coarse woody debris (CWD) will be scattered throughout the cutblock and will be comprised of pieces that are either uneconomical or below utilization standards.
- As per the Chief Forester's guidance, the following amounts of big, >20cm diameter and >10m length, CWD should be retained:
  - SBPS - 2 pieces or 4 stubs/ha;
  - Or a number specified by the harvest supervisor at the time of the prework. This recognizes that stand conditions may change; the amount of blowdown may increase between the time the cutblock is cruised and when the harvesting actually takes place. Stubs (3-

5m tall) shall be dispersed throughout the cutblock in clumps and will have the cut portion left on site. Focus the stubs in the vicinity of WTPs and riparian features, if present. Stub trees along the boundary of existing harvested cutblocks if present.

- For Furbearer Wildlife as per section 5.3.2.3 & 5.3.3.4 of this site plan retain (See Final LP Map's):

Unburnt Debris Piles - woody debris >3m by >5m in dimension and mechanically piled >2m high, with >30% of pieces being >20cm diameter >3m long.
**Single Pieces* - CWD ≥20 cm diameter, ≥10 m in length, elevated 25-50cm above ground.

ECF0006:

TU A (12.3ha/ Total of **6** debris piles needed):

- Distributed throughout TU A (CWD Type I- Below):
  - Retain 0.5 unburnt debris piles*/ha (total of approx. **6** unburnt debris piles) and,
  - Retain 10.0 single pieces/ha (total of approx. **123** single pieces).

TU B (5.0ha/ Total of **1** debris pile needed):

- Distributed throughout TU B (CWD Type I – Above):
  - Retain 0.13 unburnt debris piles*/ha (total of approx. **1** unburnt debris piles) and,
  - Retain 2.5 single pieces/ha (total of approx. **13** single pieces).

TU C (28.7ha/ Total of **13** debris piles needed):

- Within 100m of S6-A:
  - Retain **13** unburnt debris pile (approximate locations identified on the Final Log Plan map with a star symbol).
- Distributed throughout TU C (CWD Type II- Below):
  - Retain 1.0 single pieces/ha (total of approx. **29** single pieces).

TU D (36.3ha/ Total of **7** debris piles needed):

- Within 100m of S6-A:
  - Retain **7** unburnt debris pile (approximate locations identified on the Final Log Plan map with a star symbol).
- Distributed throughout TU D (CWD Type II- Near):
  - Retain 0.8 single pieces/ha (total of approx. **29** single pieces).

TU E (90.3ha/ Total of **5** debris piles needed):

- Distributed throughout TU E (CWD Type II- Above):
  - Retain 0.06 unburnt debris piles*/ha (total of approx. **5** unburnt debris piles) and,
  - Retain 0.3 single pieces/ha (total of approx. **27** single pieces).

OPERATIONAL MANAGEMENT STRATEGIES FOR ARCHAEOLOGICAL SITES and/or CHR

- An Archaeological Overview Assessment (AOA) was completed by Circle Group Archeology. The AOA report dated March 22, 2021, from Kyle Belanger (Archaeologist / Jr. Project Manager) stated 'Block ECF006 has low potential for previously unidentified archaeological sites and is not recommended for field assessment'. No further work required.
- If any archaeological features are identified before or during operations, activities will halt until a management plan is put in place.

SILVICULTURE SYSTEMS

SU	SYSTEM	Natural Regen?
ALL	Clearcut with Reserves.	Yes

STOCKING REQUIREMENTS

BLOCK: ECF0006/ BEC: SBPSxc-01 - FREE GROWING STOCKING REQUIREMENTS FOR SILVICULTURAL SYSTEMS

SU	Layer Name	Preferred Species/Free Growing Ht. (cm)	Acceptable Species/Free Growing Ht. (cm)	Post Spacing Density (sph)		Max Coniferous (sph)	Regen Date (years)	Free Growing (years)	
				Min	Max			Early	Late
1		PLI/ 1.0	FDI/ 0.6 SX/ 0.6 Lw/ 1.4			10000	7	1	20

SU	Standards ID	Layer Name	Target Stocking (TSS) (wsph)	Minimum Stocking (MSSpa) (wsph)	Minimum Preferred (MSSp) (wsph)	Minimum Horizontal Distance (m)	Minimum Pruning Height (m)	Residual Stand Structure		Height Relative to Comp.
								BA (m2/ha)	Density (sph)	
1			1200	700	600	2.0				150%

SU	STANDARDS ID	STANDARDS ID FOOTNOTES	OTHER REQUIRED INFORMATION
1		• Even-aged management.	