

Site Plan

Tolko Industries Ltd.

Okanagan Woodlands

☒ Original	25-Nov-2014	☐ Amendment #
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TENURE IDENTIFICATION

Region RSI	District DOS	TSA 22	TSB 8	Licence No. A74912	Timbermark (s) BJ6389	Cutting Permit 389	Block AS6022	Mapsheet/Opening No. 082L097 /
Area Under Tenure 27.8 (ha)	Location Griffin Mountain				UTM East 381770	UTM North 5643899	UTM Zone 11	Licensee Tolko Industries Ltd.
	Latitude: 50.56.04				Longitude: 118.40.57			

SAFETY

Weather Station
Curwen

Other Safety Comments

AS6022 is located in the Griffin area east of Malakwa off the Griffin Mountain Main.

Safety Issues:

- 1) Several standing snags exist within the cutblock, along timbered edges, and within WTRA. These should be considered a safety hazard.
- 2) Rocky outcrops, varying in size, are scattered throughout the block.

OPERATIONAL COMMENTS

HARVEST SYSTEM BREAKDOWN

A: Fellerbuncher with grapple skidding to landing for processing. Winter harvest on sufficient snowpack recommended to meet stated objectives for Grizzly GAR GWM#3.

AREAS OF CONCERN, SEDIMENT DELIVERY, NON-CONFORMANCE TO SOP'S

- Risk of sediment delivery within the block is moderate to high. NCD-F is a direct tributary to S4-A which defaulted to a fish bearing stream as it has a confluence with S3-A outside the block.
- S6-E has a sediment delivery of Very High; Skid bridges will be required on S6-E; there is one location flagged in the field just southeast of FC B21, the other locations have not been marked. The precise location of these structures is to be determined at the time of harvest at the discretion of the logging supervisor. These structures will be either log corduroy (or logs with snow and ice), metal pipe, log stringer or similar structure, as required at the time of crossing to protect stream banks, and they will be removed at the completion of operations.
- This block is not within a community watershed, nor is it located above any domestic water intakes.

BLOCK ROAD SUMMARY AND/OR CONCERNS

- Moderately gently slopes within the block, ranging from 5-40%.
- There is a moderate amount of rocky outcrops and larger boulders scattered throughout the block. Operating around these features may be difficult.
- This Cutblock Site Plan also covers R07604-258014 road sections adjacent to block AS6022 to block boundary of AS6045. The road has been geometrically designed; See the associated Road Construction Plan for more detail. Ensure road is constructed consistent with TSA recommendations.
- R07604-258014 is planned as a permanent road that will require permanent deactivation.
- R07604-258015 is planned as a permanent road that will require permanent deactivation.
- Skid bridges will be required on S6-E; there is one location flagged in the field just southeast of FC B21, the other locations have not been marked. The precise location of these structures is to be determined at the time of harvest at the discretion of the logging supervisor. These structures will be either log corduroy (or logs with snow and ice), metal pipe, log stringer or similar structure, as required at the time of crossing to protect stream banks, and they will be removed at the completion of operations.
- There is an existing trail located in the southeast corner of the block; this trail is also an old cut R/W.
- A bladed trail has been proposed in the northwest corner of the block, due to steeper slopes, to forward wood to a landing site; this trail has been marked in the field.

TOPICS FOR DISCUSSION AT PRE-WORK

- 1) Leave Tree Strategy: Retain 100% of deciduous >/=17.5cm DBH. See also Leave Tree Comments and CWD MANAGEMENT STRATEGIES under the FOREST MANAGEMENT section. *NOTE* Enhanced Coarse Woody Debris measures apply within the RMA of S4-A (stream adjacent to eastern boundary).
- 2) Grizzly Bear GAR Order: General Wildlife Measure #3 - Vaccinium productivity. See 8-232 Grizzly Specified Area under the GAR ORDERS section.
- 3) Fisher and Marten management: The Habitat suitability zone for Fishers was determined to be MODERATE and for Martens it was found to be HIGH. Enhanced CWD measures will apply within the RMA of S4-A.
- 4) Stream management: See RIPARIAN MANAGEMENT comments under the FOREST MANAGEMENT section.
- 5) Stand tending: Spacing or thinning stands within a HIGH designated habitat suitability zone for Marten. See Other Management Requirements under the FOREST MANAGEMENT section.

NET AREA TO BE REFORESTED INCLUDING RESERVES WITH MODIFICATIONS (ha)		
SU	SU Area Description	Net Area To Be Reforested
A	<div>SU A is comprised of BI, and Sx according to the cruise. The Biogeoclimatic association of this SU is entirely within the ESSF wc4 (Version 7) BEC zone, having a predominantly mesic hydrological association, classified as primarily 01 site series with a minor component of 04.</div> <div>This SU occurs on moderately sloped, slightly convex terrain, occuring on a north-northwest aspect, with slopes from 5-40%, with SiL-SL soils, and a high amount of coarse fragments. Rocky outcrops are scattered throughout.</div> <div>This block will be harvested using fellerbuncher with grapple skidding to roadside for stoker processing.</div>	22.1

ECOLOGICAL INFORMATION AND SITE CHARACTERISTICS

ECOLOGY AND CRITICAL SITE CONDITIONS														
SU	AREA	BEC			ELEVATION (m)			SLOPE (%)			SITE SERIES Dominant ----- Related		ASPECT	SITE TYPE
					Low	High	Avg	Min	Max	Avg				
A	22.1	ESSF	wc	4	1561	1696	1629	5	35	25	01	04	NW	

SU	Critical site conditions that affect the timing of operations, and how they affect the timing
A	Recommend winter harvest as there are seepage areas within the block, and reduce damage to vaccinium productivity as per GWM 3# of the Grizzly GAR Order.

SOIL CONSERVATION

SITE DISTURBANCE									
HAZARD RATING (if logging methods other than cable or aerial are proposed)					SOIL CHARACTERISTICS (if temporary access structures are proposed)			SOIL DISTURBANCE LIMITS	
Soil					UNFAVORABLE SUBSOIL			Max. allowable within the NAR (%)	Max. limits may be temporarily exceeded for Temp Access Structures (%)
SU(s)	Compaction	Displacement	Surface Erosion		Depth to (cm - cm)	Type			
A	H	M	H					10.0	5.0

Roadside Soil Disturbance25.0 %

Max Proportion of total area under the prescription allowed for perm access	7.0 %
Actual Permanent Access Calculated	5.4 %

Permanent Access Comments
R07604-258014 and 258015 are planned as a permanent roads, requiring permanent deactivation.

SLOPE INSTABILITY INDICATORS:	Measures required to address terrain instability: No	Bladed trails restricted: No
There is no terrain Class IV or V mapping for this area. No signs of instability or significant steep slopes were noted in the block during field work. No special measures are required.		

TEMPORARY ACCESS MANAGEMENT					
SU(s)	General Location (also refer to map)	Sediment Delivery Risk (in community watershed and above Domestic Intakes)	Max Allowable Height of Cutbanks (m)	Average Height of Cutbanks (m)	Equipment To Be Used (if other than Excavator)
A	Roads and trails designated as per map. Short sections of bladed or excavated trail may be required in areas of designated crossings, and/or repeated machine traffic to access landings.	N/A	1.5	0.5	Cat and/or Skidder

Temp Access Strategies	
All TAS roads and trails are to be constructed in a manner that maintains natural drainage (does not intercept, divert or concentrate drainage). These roads are to be permanently deactivated within 2 years following harvesting completion, silviculture TAS will be rehabilitated following planting activities. If this permanent deactivation is not completed immediately after harvest completion, these structures are to be seasonally deactivated to ensure natural drainage is maintained, and that the deactivation does not create a condition of instability or sedimentation to riparian features.	
Short sections of bladed or excavated trails may not be rehabilitated if they are less than 30m in length and cumulatively add up to less than 1% of a cutblock area and have not created a condition that is unstable or likely to cause sedimentation of a stream.	

FOREST MANAGEMENT

RIPARIAN MANAGEMENT				
Riparian I.D.	Riparian Class	RRZ Width (m)	RMZ Width (m)	Description and strategy for Riparian Zone including purpose and extent of removal or modification of trees and res. basal area or density.

File ID: 389.AS6022.A74912		Licence No.: A74912		Timbermark: BJ6389		CP: 389	Block: AS6022
S6-E	S6		20	<p>This stream flows north through the block, entering at FC B10A and exiting near FC B21, with an approximately 100m section flowing within the WTP. Based on the moderate windthrow hazard for the riparian management of the S6 stream, the basal area retention requirement is >=1%, as per Table 5.3.3 in the FSP; this will be achieved through the placement of an internal WTP where no harvest occurs.</p> <p>5m MACHINE SENSITIVE ZONE: Within the RMA of Stream S6-E, a 5-10m Machine Sensitive Zone is established in the field. The objective is minimize disturbance and reserve all non-merchantable trees, deciduous species, shrubs and herbs as practicable during operations within this zone. No significantly different practices are proposed for the remainder of the 20m RMZ than for the rest of the block; it will not be flagged in the field.</p> <p>STREAM BANK PROTECTION: Directional falling and skidding away will mitigate detrimental impact on the stream bank. 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. Stems will be bucked at the stream banks and skidded away where stream bank damage is a concern.</p> <p>TEMPORARY CROSSINGS: Temporary skid bridge locations may be located or moved at the discretion of the logging supervisor if not marked on the map. These will be either log corduroy (or logs with snow and ice), metal pipe, log stringer or similar structure, as required to protect stream banks. They will be removed at the completion of harvesting and/or silviculture and have CWD strategically placed to limit future sedimentation issues.</p>			
S4-A	S4		30	<p>S4-A flows adjacent to the East of the boundary most of the RMZ is located in the WTP however, a small portion is located in the block. ECWD will apply to the RMZ located outside of the WTP, the basal retention is achieved through the external WTP.</p> <p>Based on the moderate windthrow hazard for the riparian management of the S4 stream, the basal area retention requirement is >=33%, as per Table 5.3.3 in the FSP; this will be achieved through the placement of an internal WTP where no harvest occurs.</p> <p>Within the RMA of Stream S4-A, a 5-10m Machine Sensitive Zone is established in the field. The objective is minimize disturbance and reserve all non-merchantable trees, deciduous species, shrubs and herbs as practicable during operations within this zone.</p>			
S3-A	S3	20	20	<p>This stream flows outside the block adjacent to the eastern boundary. Although fish barriers exist downstream, this stream is lake-headed from Crystal Lake which has a known inventory of cutthroat trout, therefore this stream was defaulted to fish-bearing. The harvest boundary is >=30m from this feature. Based on the moderate windthrow hazard for the riparian management of the S3 stream, the basal area retention requirement is >=50%, as per Table 5.3.3 in the FSP; this will be achieved through the placement of an external WTP where no harvest occurs.</p>			

Stream Management:

5m MACHINE SENSITIVE ZONE: Within the RMA of the S6 stream and a portion of S4-A, a 5-10m Machine Sensitive Zone is established in the field; the objective being to minimize disturbance and reserve all non-merchantable trees, deciduous species, shrubs and herbs as practicable during operations within this zone.

STREAM BANK PROTECTION: Directional falling and skidding away from the streams will aid in minimizing detrimental impacts to the stream bank.

TEMPORARY CROSSINGS: A Temporary skid bridge location may be located or moved at the discretion of the logging supervisor if not marked on the map. These will be either log corduroy (or logs with snow and ice), metal pipe, log stringer or similar structure, as required to protect stream banks. They will be removed at the completion of harvesting and/or silviculture and have CWD strategically placed to limit future sedimentation issues.

NCDs were identified within this block during field layout. The following management strategies will be applied to all marked and any unmarked NCDs encountered during harvesting:

- limit the number of crossings and maintain natural drainage post-harvest / site prep
- do not skid down the identified NCDs
- retain stubs along the NCD for future reference
- fall away / yard away from the NCDs where safe to do so
- do not pile slash or site debris over the identified NCD
- crossing rehabilitation to include scattering large CWD to minimize potential for cattle congregating and / or off-road vehicle damage.

LEAVE TREE CHARACTERISTICS					
SU(s)	Layer	Species	Total Stems	% of Stems	Description
A	1	Ac / At	0-10	100	Retain 100% of deciduous species.

Leave Tree Comments

In addition to the established WTPs, in-block structure will be enhanced by retaining deciduous trees and brush where practical to do so.

The distribution of the retention is not expected to be even throughout the block as there are > 1ha areas that may not have any of these species. Any of the trees required for retention that are harvested for safety, access or silviculture will be left on site for CWD.

COARSE WOODY DEBRIS MANAGEMENT STRATEGIES	Coarse Woody Debris Requirement
<p>1) Basic Coarse Woody Debris that is to be retained at the conclusion of harvesting is to include, to the extent practicable:</p> <p>a) having preference for CWD >25cm;</p> <p>i) Timber grade firmwood reject & poor quality Grade 4 or other grades if these stems have a higher value as wildlife trees or CWD;</p> <p>AND</p> <p>b) a minimum average per hectare of :</p> <p>i) two mature standing trees or two stubs (or combination of; preference is given to species other than Spruce or Douglas Fir); THAT IS EITHER (a&b); distributed over the cutblock, piled near the cutblock edges or riparian features, and focuses on all classified and non-classified riparian areas when cattle use is expected to be high.</p> <p>2) Where loose debris piles (not roadside or landing accumulations) have been created as a result of mechanical piling, 1-4 piles/ha adjacent to the timber edge, RMA or WTP will be left unburned.</p> <p>3) When practicable/available, mature deciduous trees will be reserved from cutting in clumps. Deciduous that is harvested for safety, access or</p>	

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<p>silviculture will be left on site for CWD.</p> <p>4) Advanced conifer regeneration may be reserved, (where it exists and it is reasonably expected that merchantable trees can be felled and skidded without damaging the residual stems that may contribute to reforestation requirements).</p> <p>5) Additional Strategies outlined in the section "LEAVE TREE CHARACTERISTICS" may also help to achieve the requirements for CWD.</p> <p>Enhanced Coarse Woody Debris requirement - only applies within the RMA of S4-A: In addition to the prescribed Basic CWD, Enhanced Coarse Woody Debris that is to be retained at the conclusion of harvesting is to include, to the extent practicable: A minimum average per hectare of:</p> <p>i) 10 mature standing trees; or ii) 10 stubs or pieces* (preference is given to species other than Spruce or Douglas Fir); or iii) a combination of i) and ii); and the characteristics outlined in section 5.6.4, BASIC CWD.</p> <p>Additional Strategies outlined in the section "LEAVE TREE CHARACTERISTICS & INTERNAL CUTBLOCK RETENTION STRATEGY" may also help to achieve the requirements for CWD.</p> <p>* tree piece means a piece of tree that is at least 3m in length and has a diameter of >40cm at one end (if available)</p>

MANAGEMENT STRATEGIES FOR ARCHAEOLOGICAL SITES
An Archaeological Overview Assessment (AOA) was conducted for this block by D.E. French, PhD Archaeology on May 10, 2011. This assessment did not identify any areas of moderate or high archaeological potential and no further action is required.

Other Management Requirements

GUIDE OUTFITTERS & TRAPPERS

There is one trapline associated with this cutblock (TR0334T002). There is no Guide/Outfitter for the area. This block was included in the (11-FN-01) referral. No comments were received.

OTHER WILDLIFE MANAGEMENT & SPECIES AT RISK

No occurrences of the following Species at Risk were noted during fieldwork; however elements of suitable habitat have been noted: (These species are not covered under a Section 7 Notice or the "Wildlife in the Okanagan Shuswap" FSP Section 5.2.3. If any of these species are encountered during operations, it should be reported to the harvesting supervisor immediately.)

RIPARIAN: The WTP associated with this block encompasses riparian areas which may provide habitat for several species found within this BEC. (Barn Swallow, Grizzly Bear, Olive-sided Flycatcher, Rough-legged Hawk and Wolverine)
Badger and Wolverine: The early/late seral stages in the adjacent area may provide potential habitat in this area.

The elevation of this block exceeds the maximum limit for the Prairie Falcon and Sandhill Crane; therefore, these species have been deemed not applicable.

RANGE

The range tenure for this area is 462074 B.C. Ltd. No natural range barriers will be breached or rendered ineffective. No referral comments were received.

Silviculture Considerations

Spacing or Thinning:
This block overlaps a HIGH designated habitat suitability zone for Marten. If any part of this stand exceeds the 10000 SPH maximum density and spacing or thinning is required, ensure at least 10% of the area requiring spacing or thinning is retained above the maximum density threshold.

Soils:
- Soil textures are SiL to SL. Coarse Fragment content moderately high, with surface rock present throughout block.
Competition:
- Rhododendron is prevalent throughout the block.
Understory:
- Existing SxBl stems show moderate to good form and vigour and may contribute to stocking.

Pest Codes			
SU(s)	Pest Code	% Percent	Management Strategies
A	Windthrow	0	The external boundaries and WTP's have been rated as having a Moderate windthrow risk. No special management considerations. Future blowdown within WTP's will be left on site as CWD.
A	Beetle	5-10	This stand consists of a SxBl timber type. No significant insect incidence was noted during informal observations during the development of this block. Bl mortality incidence was noted within the block at low levels, this may be attributable to balsam beetle.

STOCKING REQUIREMENTS

FREE GROWING STOCKING REQUIREMENTS FOR SILVICULTURAL SYSTEMS - Check Footnotes for Restrictions											
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
A		Bl/80	Sx/80	Pli/160				10000	4		20

SU	Standards Id	Layer Name	Target Stocking (TSS) (wsph)	Minimum Stocking (MSSpa) (wsph)	Minimum Preferred (MSSp) (wsph)	Minimum Horiz. Distance (m)	Minimum Pruning Ht. (m)	Residual Stand Structure		Height Relative to Comp.
								BA (m2/ha)	Density (sph)	
A	1005550		1200	700	600	2.00				

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GENERAL STOCKING STANDARDS COMMENTS AND APPROVED VARIANCES

7.4
(b) The minimum inter-tree distance will be:
(ii) 1.6 metres on sites that:
(A) are hygric or sub-hygric; or
(B) are in ESSF dc1, dc2, vc, vv, wc2, and wc4 to utilize preferred microsites. Surveyors may use this minimum inter-tree distance on no more than 20% of survey plots and such use must be recorded on survey cards.
(iii) 2.0 meters on all other sites.

7.4(c) Where more than one site series is located within a standards unit, and the additional site series are less than one hectare in size, the stocking standard in Appendix C that applies is the standard applicable to the dominant site series. Additional preferred species may be added to the preferred species of the Standard from Appendix C from the subdominant site series for those specific areas of the mosaic or complex. Additional acceptable species may be added to the acceptable species of the standard from Appendix C from the subdominant site series for those specific areas of the mosaic or complex.

7.4(e) the following maximum densities apply
(ii) 10,000 countable stems per hectare for all other stands.

SU	STANDARDS ID	STANDARDS ID FOOTNOTES	OTHER REQUIRED INFORMATION
A	1005550	Additional FSP approved footnotes include: PliB; Preferred if planted in a mix with other preferred species up to 35%.	PliB; Pli may be moved to preferred if planted in a mix with other preferred species up to 35%. However, it should be noted that there was no PI recorded in the cruise.

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FSP RESULTS AND STRATEGIES MANAGEMENT

ID	Plan Name	Term Years	Commencement Date
FSP 034_2.1	Tolko-Stella-Jones-Selkirk-UNIB-WBFN-LSIB-NKIB FSP	5	2/2/2012

Applicable FDU(s)	ALL
This Site Plan Covers All Roads Except Those Covered by the Roads Site Plan	

This Site Plan is consistent with the above noted FSP, section 10 of the FRPA and the prescribed requirements of section 34(1) of the FPPR. This Cutblock Site Plan also covers external road R07604-258014.

Riparian Management

Riparian Requirements and Basal Area Retention in RMZ's

R/S/M ID	R/S/M Title	Applicable	How Results, Strategies or Measures Apply to the Site (Include Rationale if No)
5.3.2	Riparian Practice Requirements	Yes	There is are three streams associated with this block, an S6, an S4 and an S3. The S6 stream flows within the block along the western boundary. The S4- and S3 flow adjacent to the block along the East boundary. There are no classified lakes or wetlands associated with this block.

How is this SP consistent with the Results, Strategies or Measures?	The S6 within the block is deemed absent of fish as it has multiple gradient breaks throughout its duration. A 5-10m machine sensitive zone is hung in the field. S4-A is adjacent to the Eastern block boundary, the stream is defaulted to a fish bearing stream as it flows into a S3 stream. The boundary is hung 5m from the stream allowing for basal retention to be met. The NCD that flows into the S4 is found to be a non-fish watercourse as it is <0.30m wide and has a gradient >10%.
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R/S/M ID	R/S/M Title	Applicable	How Results, Strategies or Measures Apply to the Site (Include Rationale if No)
5.3.3	Riparian Retention Requirements	Yes	Based on the moderate windthrow hazard for the riparian management area of the S6 streams, the basal area retention requirement is >=1%, as per Table 5.3.3 in the FSP; for the S4 stream the basal area retention requirement is >=33%; for the S3 stream the basal area retention requirement is >=50%.

How is this SP consistent with the Results, Strategies or Measures?	The Basal Area retention requirements, >=1% for S6, >=33%, and >=50% for S3, is achieved through the placement of internal and external WTPs where no harvest occurs.
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Biodiversity

Green up and Adjacency, Wildlife Tree Retention, Old Growth Management Areas, Biodiversity Emphasis Option and Coarse Woody Debris

R/S/M ID	R/S/M Title	Applicable	How Results, Strategies or Measures Apply to the Site (Include Rationale if No)
5.5.1	Biodiversity - Landscape Level	Yes	The maximum allowable cutblock size is 40 hectares within the Okanagan TSA. The green up requirement is 2m.

How is this SP consistent with the Results, Strategies or Measures?	This block is <40ha and is adjacent to Louisiana Pacific's proposed cutblock east-northeast of the block. These blocks will not form an aggregate >40ha, the blocks will also have a buffer between them from the S3 and S4 streams. There is an older existing cutblock located adjacent to the southern boundary; this block has achieved the 2m green-up requirement; this block is >20 years old and will therefore not be part of the aggregate.
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R/S/M ID	R/S/M Title	Applicable	How Results, Strategies or Measures Apply to the Site (Include Rationale if No)
5.5.2	Biodiversity Emphasis Option	Yes	This block is located in the Eagle River Landscape Unit. The BEO is INTERMEDIATE for this block.

How is this SP consistent with the Results, Strategies or Measures?	Coarse Woody Debris will be addressed as detailed in the sections titled 5.6.4 "Basic CWD" and/or 5.6.5 "Enhanced CWD". Old Growth Management Areas have been established within this Landscape Unit as per the provincial OGMA order. WTRA's have been established consistent with sections 5.6.2 & 5.6.3.
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R/S/M ID	R/S/M Title	Applicable	How Results, Strategies or Measures Apply to the Site (Include Rationale if No)
5.6.2	Wildlife Tree Retention (WTR)	Yes	This block is within the ESSFwc Biogeoclimatic Zone of the Eagle River Landscape Unit. The minimum Wildlife Tree Retention is 3.5% for the cutblock and 9% for the Cutting Permit.

How is this SP consistent with the Results, Strategies or Measures?	Wildlife Tree Patches have been specified for this block, totalling representation of 15%, which exceeds the requirement for wildlife tree retention at the cutblock level. The cutting permit will also achieve the required retention of 9%.
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Coarse Woody Debris - Okanagan

In the Okanagan Shuswap Forest District FDU's CWD is based on the LUO Order and is either Basic or Enhanced or a combination of these two levels depending on the drill down report triggered requirements.

R/S/M ID	R/S/M Title	Applicable	How Results, Strategies or Measures Apply to the Site (Include Rationale if No)
5.6.4	Basic CWD	Yes	Basic CWD applies to this block. Ground based harvest systems will be utilized and the retention requirements for blocks >20ha applies.

How is this SP consistent with the Results, Strategies or Measures?	SEE CWD MANAGEMENT STRATEGIES UNDER THE 'FOREST MANAGEMENT' HEADING.
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R/S/M ID	R/S/M Title	Applicable	How Results, Strategies or Measures Apply to the Site (Include Rationale if No)
5.6.5	Enhanced CWD	Yes	Enhanced CWD applies to this block as it is >20ha and falls within both a High habitat suitability area for Marten, and a Moderate habitat suitability for Fisher.

How is this SP consistent with the Results, Strategies or Measures?	ECWD only applies within the RMA of S4-A. SEE CWD MANAGEMENT STRATEGIES UNDER THE 'FOREST MANAGEMENT' HEADING.
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Wildlife - Okanagan Shuswap			
Requirements for Marten, Fisher, Bighorn Sheep and Williamson's Sapsucker as per the LUO Order.			
R/S/M ID	R/S/M Title	Applicable	How Results, Strategies or Measures Apply to the Site (Include Rationale if No)
5.2.3.2	Marten Areas	Yes	This block is within a HIGH designated habitat suitability zone for Marten.
How is this SP consistent with the Results, Strategies or Measures?		See Basic and Enhanced CWD section for details. ECWD only applies within the RMA of S4-A.	
R/S/M ID	R/S/M Title	Applicable	How Results, Strategies or Measures Apply to the Site (Include Rationale if No)
5.2.3.3	Fisher Areas	Yes	This block is within a designated MODERATE habitat suitability zone for Fisher.
How is this SP consistent with the Results, Strategies or Measures?		The habitat features required to trigger ECWD as it applies to Fisher are not found within this block. However; ECWD will be managed for within the RMA of S4-A to satisfy the Marten requirement; in addition, the Wildlife Tree Retention required under the FSP in respect of this cutblock is associated with wildlife tree patches and riparian management areas. There was no cottonwood noted within the block; the WTP contains live unhealthy or dead Spruce trees.	

Cultural Heritage Resources			
Cultural Heritage Resources Information Sharing Referral Results with First Nations.			
R/S/M ID	R/S/M Title	Applicable	How Results, Strategies or Measures Apply to the Site (Include Rationale if No)
5.8.1	Cultural Heritage Resources	Yes	This block has been through Information Sharing Referrals 11-FN-01 with applicable First Nations.
How is this SP consistent with the Results, Strategies or Measures?		As a result of the referral the Adams Lake Indian Band requested a CHR field review of this block. A field review was conducted by members of the ALIB in October, 2014. This assessment did not identify any specific cultural heritage values requiring conservation or protection and no further concerns were identified.	

Soils			
Soil Disturbance Limits and Permanent Access Structures			
R/S/M ID	R/S/M Title	Applicable	How Results, Strategies or Measures Apply to the Site (Include Rationale if No)
5.1.1	Soils	Yes	This cutblock has been assessed as not having sensitive soils as defined by regulation. The maximum amount of Permanent Access Structures is 7% and maximum amount of additional soil disturbance is 10%. The allowable soil disturbance for roadside work areas is 25%.
How is this SP consistent with the Results, Strategies or Measures?		Soil Disturbance and Permanent Access Structures are within limits. Refer to the Soil Conservation section and C.1 Ecology and Critical Site Conditions.	

Invasive Plants			
Invasive Plant Identification and Management			
R/S/M ID	R/S/M Title	Applicable	How Results, Strategies or Measures Apply to the Site (Include Rationale if No)
6.1.2	Invasive Plants	Yes	This area is not known as a high hazard site and no high risk species were noted within or adjacent to the proposed roads; therefore the non-high hazard measures apply.
How is this SP consistent with the Results, Strategies or Measures?		Areas of mineral soil >0.1ha exposed by forest operations outside of the NAR will be seeded within 1 year of completion of operations with a mixture of seed that meets or exceeds the Canada Common #1 specification in the Seeds Act R.S.C. 1985.	

GENERAL WILDLIFE MEASURES UNDER GAR

GAR ID	GAR Title	Applicable	How General Wildlife Measures Apply to the Site (Include Rationale if No)
8-232	Grizzly Bear Specified Area-OKTSA	Yes	This block falls entirely within the specified area prescribed by the GAR order for this species.
How the SP is consistent with this GAR Order and GWM's		<p>Schedule 1 - General Wildlife Measures:</p> <p>1. Forest practices will result in at least 10% of each management unit containing forest stands that exhibit a height of at least 19.5m in patches that are >5ha. A landscape analysis conducted by Foresite Forest Management Specialists (April 21, 2015) conclude that the approved scenario (given all the current and proposed harvest through the end of 2015) is that 86% of the ESSFvc management unit is >19.5m height for the Eagle River Landscape unit.</p> <p>***Version 3 of the BEC field guide was used in Forsite's landscape analysis, even though the block is classified as ESSFwc4 (Version 7 classification), it fall under the ESSFvc BEC label in the report.</p> <p>2. This block is not adjacent to, nor within any avalanche tracks.</p> <p>3. According to table 1; BEC zone ESSFvc and ESSFwc4 are considered to be an important berry producing site. Field Silviculture Prescription Plots indicate that Vaccinium levels within the block are estimated to be Moderate, ranging from 10-15% cover over the block. Adjacent harvested blocks in the area show moderate or better levels of Vaccinium. It is expected that Timber harvest will not inhibit Vaccinium species.</p> <p>Measures that will be taken to meet this requirement:</p> <ul style="list-style-type: none">- This block is recommended for winter harvest on sufficient snowpack if practicable.- If the block is harvested without snowpack, operations will acknowledge the objective to increase Vaccinium productivity; if ocular observation can identify any areas of higher Vaccinium concentrations, disturbance will be minimized in those areas (often associated with small natural openings).- Site preparation activities will also acknowledge the objective to increase Vaccinium productivity; if ocular observation can identify any significant Vaccinium patches post-harvest, all attempts will be made to minimize mechanical activity within these areas.- Herbicide application will not be utilized if brush control is required. <p>4. The hydric site series identified in Table 2 are not found within this block.</p> <p>5. There are no main roads adjacent to this cut block that meet the definition of "main haul roads"</p>	

ADMINISTRATION

PREPARED BY (RPF SIGNATURE AND SEAL):

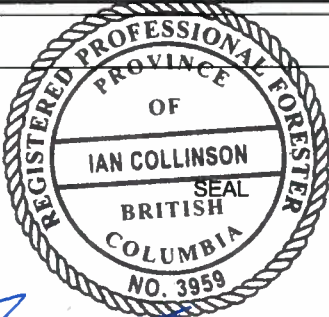
Prepared by:

Allie Affleck
Name (Printed)

R.P.F.'s Approval:

Ian Collinson
R.P.F.Name (Printed)

JAN 5/2016 3959
Date Signed (YMD) R.P.F. Number



[Signature]
R.P.F. SIGNATURE AND SEAL

RPF LEGAL STATEMENTS AND COMMENTS

RPF Reviewed This Site Plan

Legal Statements and Comments

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 the standards expected of a member of the Association of British Columbia Forest Professionals.