

The following information is attached to support associated Site Plans.

TENURE INFORMATION

LICENSE	LOCATION	BLOCK	PRE-NUMBER	ROADS & EXTERNAL TRAILS
TA0654	Kokanee Sunset Creek	1	WAW-018	BCTS Forest Service Roads: <ul style="list-style-type: none">KL0236.17Kokanee6500: 0+680 m (Proposed, Long Term Permanent >5 years [LTP]) Cutblock Roads: <ul style="list-style-type: none">KLTA0654Kokanee6500: 0+431 m (Proposed, Long Term Permanent >5 years [LTP])KLTA0654Kokanee6500: 0+331 m (Proposed, Temporary 0-2 years [TEMP])
		2	WAW-017	BCTS Forest Service Roads: <ul style="list-style-type: none">KL0236.167Kokanee8100: 0+249 m (Proposed, Long Term Permanent > 5 years [LTP]) Cutblock Roads: <ul style="list-style-type: none">KLTA0654Kokanee8100: 0+265 m (Proposed, Temporary 0-2 years [TEMP])KLTA0654Kokanee8510: 0+286 m (Proposed, Temporary 0-2years [TEMP])

HIGHER LEVEL PLANS AND ASSESSMENTS

ASSESSMENT SUMMARY
FOREST STEWARDSHIP PLAN <p>This Support Document is consistent with the results, strategies, objectives, and measures of the British Columbia Timber Sales (BCTS) Kootenay Business Area Forest Stewardship Plan (FSP) #601 2017-2022 (Version: Sep 30, 2020, Amendment #5), and has been prepared in accordance with FRPA Section 10 and FPPR Section 34(1).</p>
KOOTENAY BOUNDARY HIGHER LEVEL PLAN ORDER <p>On October 26, 2002, Kootenay-Boundary Higher Level Plan Order (KBHLPO) established new Resource Management Zones and Objectives for the Kootenay Boundary Region under Sections 3(1), 3(2), and 9.1 of the Forest Practices Code of BC (The Act).</p>
LANDSCAPE LEVEL ASSESSMENT / OPERATING PLAN / REFERRAL <p>Refer to the following for planning and/or referral information related to this proposed development.</p> <ul style="list-style-type: none">➤ TA0654_Assess_LLA_20170511➤ TA0654_Assess_Referral_20180122
STAKEHOLDER COMMUNICATIONS AND COMMITMENTS <p>BCTS is tracking all Stakeholder communications and commitments external to Site Plans and Support Documents.</p>
ASSESSMENTS <p>Assessments have been completed to support the Site Plan. Assessment results are summarized in the relevant sections below. A list of assessments completed is included in the Final Deliverables Checklist.</p>
CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS
GENERAL <ul style="list-style-type: none">Review Site Plans, Support Documents, Assessments and Action Items with BCTS.
ASSESSMENTS <ul style="list-style-type: none">Refer to individual assessments as required
TIMING RESTRICTIONS: MIGRATORY BIRDS <ul style="list-style-type: none">Refer to Migratory Birds Assessment Summary below for details regarding harvest scheduling.
BCTS ACTION ITEMS
GENERAL <ul style="list-style-type: none">Review Site Plans, Support Documents, Assessments and Action Items with Contractors and Agreement Holders.
FOREST STEWARDSHIP PLAN <ul style="list-style-type: none">Ensure consistency of outstanding items in Site Plans at time of TSL Award.
STAKEHOLDER COMMUNICATIONS AND COMMITMENTS <ul style="list-style-type: none">Inform Contractors and Agreement Holders of any Stakeholder commitments.

ASSESSMENT SUMMARIES

ARCHAEOLOGICAL ASSESSMENT

ASSESSMENT SUMMARY
<p>ARCHAEOLOGICAL OVERVIEW ASSESSMENT (AOA) & ARCHAEOLOGICAL IMPACT ASSESSMENT (AIA)</p> <p>Block 1: The nearest AOA polygon (K10-62) ranges from 50-100 m west of the block.</p> <p>Block 2: The nearest AOA polygon (K10-62) ranges from 40-100 m west of the block.</p> <p>This proposed development: An AIA was complete by Tipi Mountain Eco-Cultural Services Ltd. The following reports were issued:</p> <p>Letter of Notice: Unknown if completed</p> <p>Interim Report: Dated Feb 12, 2018: V1</p> <p>Final Report: Outstanding</p> <p>Interim Report Summary: The Reports indicated negative results for precontact archaeological material and that no additional inspections, investigations or archaeological resource management requirements are considered necessary or are otherwise required for the forestry development areas, provided that the proposed plans do not extend beyond the areas assessed.</p> <p><i>The proposed block shapes do not extend beyond the areas that were assessed.</i></p> <p>➤ Refer to: TA0654_Assess_Archological_AIA</p>
CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS
<p>SITE PLAN REQUIREMENTS</p> <p>5.6 Cultural Heritage Resources</p> <ul style="list-style-type: none">– Strategy 5 (traditional use confidentiality)– Strategy 6 (stop work requirements related to the discovery of a First Nations artifact) <p>GENERAL</p> <p>In the event of any unanticipated discovery(s) of archaeological materials:</p> <ul style="list-style-type: none">– STOP WORK; all ground disturbances in the immediate vicinity of the suspected find(s) must be suspended at once.– Notify BCTS Kootenay Business Are Timber Sales Manager (TSM) (250-825-1100), as soon as possible.– Follow TSM direction regarding the implementation of Site Plan Section 5.6 Strategy 6.
BCTS ACTION ITEMS
<p>SITE PLAN REQUIREMENTS</p> <p>5.6 Cultural Heritage Resources</p> <ul style="list-style-type: none">– Strategy 5 (traditional use confidentiality)– Strategy 6 (stop work requirements related to the discovery of a First Nations artifact) <p>GENERAL</p> <p>In the event of any unanticipated discovery(s) of archaeological materials:</p> <ul style="list-style-type: none">– STOP WORK; all ground disturbances in the immediate vicinity of the suspected find(s) must be suspended at once– Follow Site Plan Section 5.6 Strategies 5 & 6, which may include as appropriate:– Notification and collaboration with the FLNRORD Archeology Branch Manager (250-953-3334).– Engagement of Qualified Professionals (Archeologists) to complete assessments.– Notification and collaboration with appropriate First Nations.– Notification and collaboration with Contractors and Agreement Holders as to mitigation measures.
REFER TO THE FOLLOWING FOR ADDITIONAL INFORMATION
<p>SITE PLAN</p> <ul style="list-style-type: none">– 5.6 Cultural Heritage Resources

BIODIVERSITY ASSESSMENT

ASSESSMENT SUMMARY									
ECOLOGICAL AND BIODIVERSITY INFORMATION									
Block /Road	SU	LMH 70 BEC	KBHLPO						
			Landscape Unit	Biodiversity Emphasis Option	Mature Forest Target Table 2.5	LMH20 BEC	NDT	OGMA Overlap	Connectivity Corridor Overlap
1	1	ICHmw4	K10	Intermediate	Yes	ICHdw	3	No	Yes
					No	ICHmw2	2		
	2	ICHdw1	K10	Intermediate	Yes	ICHdw	3	No	Yes
					No	ICHmw2	2		
	4	ICHmw4	K10	Intermediate	Yes	ICHdw	3	No	Yes
2	1	ICHmw4	K10	Intermediate	No	ICHmw2	2	No	Yes
					Yes	ICHdw	3	No	
	2	ICHmw4	K10	Intermediate	Yes	ICHdw	3	No	Yes

Comments
KBHLPO OBJECTIVE 2 – OLD AND MATURE FOREST This proposed development: Landscape Unit K10 in the ICHdw (intermediate Biodiversity Emphasis Option) has a mature seral management requirement. An analysis which incorporated planning shapes for this proposed development was included in the 20170511_WADF_LLA and indicated that the Mature Forest target would be met, with a total surplus of 2965.9ha of Old and Mature. OGMA OVERLAP AND REPLACEMENT OGMA Overlap Block 1: This proposed cutblock does not overlap OGMA. Block 2: This proposed cutblock does not overlap OGMA. However, the BCTS Construct Kokanee8500 FSR RoW, which is being built to harvest this proposed cutblock, overlapped 0.25 ha of OGMA (Polygon’s Provincial ID: DSE_3799). The OGMA overlap is addressed in the Support Document associated with this road. The maps associated with this proposed development show the OGMA since the overlap has been removed spatially. The OGMA boundaries have been updated within the Geographic Information System (GIS) OGMA Data Layer of the BCTS Data Library. KBHLPO OBJECTIVE 5 This proposed development: (1 & 2) Grizzly bear habitat mapping, KBHLPO map 5.1, has not been created and is not in effect. (3) The proposed development is located within a connectivity corridor as per KBHLPO map 5.2. See Objective 5 & 6 below. (4) The proposed development contains very small areas (<10 areas, all under 0.01 ha) with slopes greater than 80 percent. (5 & 6) Refer to FSP Section 5.3.1.2 (Old and Mature Forest) for consistency regarding old and mature forests, which by default include connectivity corridors.
CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS
– None
BCTS ACTIONS ITEMS
– None
REFER TO THE FOLLOWING FOR ADDITIONAL INFORMATION
SITE PLAN – 5.3.1.1 Biodiversity Emphasis – 5.3.1.2 Old and Mature Forest

CLIMATE CHANGE ASSESSMENT

ASSESSMENT SUMMARY
This proposed development: METHODOLOGY A formal site level assessment was not completed for this proposed development. Some generalized management implications stemming from recent of other TSLs in the BCTS Kootenay Lake operating areas have been included below to generally inform silviculture practices. GENERALIZED MANAGEMENT IMPLICATIONS Generalized management implications identified from recent assessments include: <ul style="list-style-type: none">During winter, a decrease in precipitation as snow and an increase in rain on snow events will result in decreased snowpacks. In the future, snowpacks will make a lesser contribution to maintaining soil moisture during the growing season.During spring, summer, and autumn the increasing climatic moisture deficit will result in increased drought stress. This will impact seedling survival in the short term and stand productivity in the long term.
CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS
GENERAL – None
BCTS ACTION ITEMS
GENERAL – Consider opportunities to mitigate the effects of climate change during the stand establishment to free-growing stages, as described in the Silviculture Plan (e.g. planting mixes, stock selection, seed selection, and planting implementation).
REFER TO THE FOLLOWING FOR ADDITIONAL INFORMATION
SITE PLAN – SU Descriptions – Stocking Standards SILVICULTURE PLAN – Planting Activities Section – Stocking Standards

COARSE WOODY DEBRIS ASSESSMENT

ASSESSMENT SUMMARY
<p>This proposed development:</p> <p>CWD MANAGEMENT OBJECTIVE:</p> <p>A range of CWD decay classes, diameter classes and trees species are preferred. Variability in CWD levels is expected across the block. Smaller aggregations across the block are preferable to large piles of CWD at roadsides and landings. Overlapping logs can provide structural diversity. Safety and fire hazard must be considered in leaving CWD. Site preparation treatments can be used to help manage levels of CWD as determined during post-harvest assessments. Stubs and reserved stems will further contribute to CWD inputs over the rotation. CWD retained can contribute to requirements under multiple standards, as summarized below.</p> <p>➤ Refer to: TA0654_ScheduleB</p> <p>Pre-Harvest CWD Levels:</p> <p>Existing CWD levels are low to moderate across the block.</p> <p>Post-Harvest CWD Levels:</p> <p>Post-harvest CWD levels are expected to be moderate to high.</p> <p>CWD MANAGEMENT STANDARDS</p> <p>FSP SECTION 5.3.1.8: WILDLIFE AND BIODIVERSITY — COARSE WOODY DEBRIS</p> <p>This proposed development is not within Biogeoclimatic Zones of IDF and MS. There are no requirements under this Strategy that are applicable to this proposed development.</p> <p>FPPR SECTION 68</p> <p>A minimum of 4 logs/ha (each being ≥2m in length and ≥7.5cm in diameter at one end) will be retained, as per FPPR 68(1)(b) unless exempted under FPPR 68(2).</p> <p>CHIEF FORESTER’S GUIDANCE ON CWD MANAGEMENT</p> <p>A CWD target of 19 logs/ha (logs ≥10m in length and ≥20cm in diameter at one end) are preferred within the ICH Biogeoclimatic zone and subzones, as practicable. These logs can come from the non-merchantable component of the stand and will contribute to meeting the CWD requirements.</p>
CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS
<p>SITE PLAN REQUIREMENTS</p> <p>5.3.1.8 Wildlife and Biodiversity – Coarse Woody Debris</p> <ul style="list-style-type: none">– FPPR Section 68 (coarse woody debris)– Strategy 2 (bark beetle infestation implications of coarse woody debris retention) <p>GENERAL</p> <ul style="list-style-type: none">– Comply with Schedule B requirements with respect to CWD.– Ensure wildfire assessment and abatement does not compromise CWD management.– The larger CWD target of 19 logs/ha (logs ≥10m in length and ≥20cm in diameter at one end) are preferred, as practicable. These logs can come from the non-merchantable component of the stand and will contribute to meeting the FPPR 68 CWD requirements above.
BCTS ACTION ITEMS
<p>GENERAL</p> <ul style="list-style-type: none">– None
REFER TO THE FOLLOWING FOR ADDITIONAL INFORMATION
<p>SITE PLAN</p> <ul style="list-style-type: none">– 5.3.1.8 Wildlife and Biodiversity – Coarse Woody Debris

COLLABORATION ASSESSMENT

ASSESSMENT SUMMARY
<p>This proposed development: A collaboration assessment was completed on April15, 2020 by Richard Cane, RPF. The assessment indicated that referrals were completed, and the objectives set by government will be achieved within this shared landscape unit.</p> <p>➤ Refer to: TA0654_Assess_Collaboration</p>
CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS
<p>GENERAL</p> <ul style="list-style-type: none">– None
BCTS ACTION ITEMS
<p>GENERAL</p> <ul style="list-style-type: none">– None
REFER TO THE FOLLOWING FOR ADDITIONAL INFORMATION
<p>SITE PLAN</p> <ul style="list-style-type: none">– 4.5.1 Collaboration within Shared Management Units

CULTURAL HERITAGE RESOURCES ASSESSMENT

ASSESSMENT SUMMARY
<p>FIRST NATIONS REFERRAL</p> <p><i>INITIAL REFERRAL</i></p> <p>The proposed development is located within the asserted traditional territories of the following First Nations Councils/Alliances (as found within the BCTS ArcGIS database): Ktunaxa Nation Council, Secwépemc Nation and Okanagan Nation Alliance.</p> <p>BCTS is responsible for completing referrals and has their own specialist covering all aspects of which FN to contact. Referrals were provided as per the FSP and Site Plans, either directly to First Nations or indirectly via Alliances/Councils.</p> <p>Referral Name: 20180122 Referral Referral Period: January 22nd to March 22nd, 2018</p> <p>➤ Refer to: TA0654_Assess_Referral_20180122</p> <p>BCTS is proceeding with the proposed development. No comments or concerns were made known in the preparation of Site Plans associated with this proposed development.</p> <p><i>FIRST NATIONS CONSULTATION SIGN-OFF</i></p> <p>This proposed development: The First Nations Consultation has been completed.</p> <p>➤ Refer to: TA0654_Assess_Cultural_FNSign-off_20180122</p> <p>CULTURAL HERITAGE REVIEW (CHR)</p> <p>This proposed development: Okanagan Indian Band responded to the first nations referral with a CHR work plan on April 23, 2018. Both Block 1 (WAW-018) and Block 2 (WAW-017) were identified as needing field reviews in this CHR work plan however no field work has been completed to date nor has a report been issued.</p> <p>➤ Refer to: TA0654_Assess_Cultural_CHR_Incomplete</p> <p>PRELIMINARY FIELD RECONNAISSANCE (PFR)</p> <p>This proposed development: First Nations who were referred did not conduct a PFR for this proposed development.</p> <p>CULTURAL CONSERVATION VALUES (CCV)</p> <p>This proposed development does not overlap a CCV Management area.</p>
CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS
<p>SITE PLAN REQUIREMENTS</p> <p>5.6 Cultural Heritage Resources</p> <ul style="list-style-type: none">– Strategy 5 (traditional use confidentiality)– Strategy 6 (stop work requirements related to the discovery of a First Nations artifact)
BCTS ACTION ITEMS
<p>SITE PLAN REQUIREMENTS</p> <p>5.6 Cultural Heritage Resources</p> <ul style="list-style-type: none">– Strategies 1, 2, 3 & 4 (First Nations Consultation Sign-Off)– Strategy 5 (traditional use confidentiality)– Strategy 6 (stop work requirements related to the discovery of a First Nations artifact) <p>FIRST NATIONS REFERRAL</p> <ul style="list-style-type: none">– Continue to work with the First Nations to find amicable resolutions should any concerns be identified in future.
REFER TO THE FOLLOWING FOR ADDITIONAL INFORMATION
<p>SITE PLAN</p> <ul style="list-style-type: none">– 5.6 Cultural Heritage Resources

FOREST HEALTH ASSESSMENT

ASSESSMENT SUMMARY
<p>This proposed development:</p> <p>No significant forest health issues were noted during layout. Indications of root rot, bark beetles and mistletoe were observed, but only traces. No forest health issues were noted that would warrant adjusting management decisions. The most significant forest health issues noted are outlined below. Consistent with Schedule B, only health stems are to be retained.</p> <p>Block 1:</p> <p>One green attack IBD Fd tree was tallied in the cruise. A few such trees were noted during layout. An Armillaria risk assessment gave a relative risk of low.</p> <p>➤ Refer to: TA0654_Bk1_WAW-018_Assess_DRA</p> <p>Block 2:</p> <p>One green and two gray attack IBD Fd trees were tallied in the cruise. A few such trees were noted during layout. An Armillaria risk assessment gave a relative risk of low.</p> <p>➤ Refer to: TA0654_Bk2_WAW-017_Assess_DRA</p>
CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS
<p>GENERAL</p> <ul style="list-style-type: none">– Consistent with the Schedule B, only healthy stems are to be retained.

BCTS ACTION ITEMS
<ul style="list-style-type: none"> None
REFER TO THE FOLLOWING FOR ADDITIONAL INFORMATION
SITE PLAN <ul style="list-style-type: none"> Stocking Requirements Comments ASSESSMENTS <ul style="list-style-type: none"> Forest Health, DRA (Armillaria)

GREEN-UP ASSESSMENT

ASSESSMENT SUMMARY
<p>FPPR SECTION 64 (MAXIMUM CUTBLOCK SIZE): This Proposed Development: The Net Area to Reforest (NAR) of this cutblock does not exceed 40ha.</p> <p>FPPR SECTION 65 (HARVESTING ADJACENT TO ANOTHER CUTBLOCK): This Proposed Development: This cutblock is not adjacent to any non-greened-up existing cutblocks. There are no existing cutblocks within 100m (two tree lengths) of this cutblock, nor internal to this cutblock.</p>
CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS
GENERAL <ul style="list-style-type: none"> None
BCTS ACTION ITEMS
GENERAL <ul style="list-style-type: none"> None
REFER TO THE FOLLOWING FOR ADDITIONAL INFORMATION
SITE PLAN <ul style="list-style-type: none"> 5.2.2 Enhanced Resource Development Zones - Timber 5.3.1.3 Green-up 5.3.1.6 Wildlife and Biodiversity - Landscape Level

INVASIVE PLANTS ASSESSMENT

ASSESSMENT SUMMARY				
This proposed development: Known invasive plant infestations were identified in the General area of this proposed development using the MFLNRORD Invasive Alien Plant Program (IAPP) database as accessed on March 18 th , 2020. Details are summarized in the table below:				
Site Location	Site ID (s)	Species & code(s)	Existing / Newly identified	Location details / comments
<u>Within This proposed development</u>	-		-	None identified.
<u>Adjacent to this Proposed Development</u>	Numerous	Chicory (CY) Hawkweed spp. (HS) St. John’s wort (SJ) Spotted knapweed (SK) Common tansy (TC) Mouse ear hawkweed (ME) Oxeye daisy (OD) Common periwinkle (CP) Scotch broom (SB) Himalayan blackberry (HI) Hoary alyssum (HA) Bull thistle (BT) Siberian elm (SE) Orange hawkweed (OH)	Existing	Near the Hwy 3A/Kokanee FSR junction which is approximately 4 km south of this proposed development, and the only available access route.
CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS				
SITE PLAN REQUIREMENTS 6.1 Measures to Prevent the Introduction or Spread of Invasive Plants <ul style="list-style-type: none"> Measure 2c (reporting of newly identified invasive plant infestations within 30 days) Measure 2d (receipt and review of invasive plant information packages and monitoring for conformance) Measure 3 (site specific measures to minimize the establishment and/or spread of invasive plants) 				
BCTS ACTION ITEMS				
SITE PLAN REQUIREMENTS 6.1 Measures to Prevent the Introduction or Spread of Invasive Plants <ul style="list-style-type: none"> Measure 2a (invasive plant awareness training for BCTS staff) Measure 2b (invasive plant awareness training for staff and contract personnel) Measure 2c (reporting of newly identified invasive plant infestations within 30 days) Measure 2d (receipt and review of invasive plant information packages and monitoring for conformance) 				

– Measure 4 (reporting and/or monitoring of newly identified invasive plant infestations during surveys)
REFER TO THE FOLLOWING FOR ADDITIONAL INFORMATION
SITE PLAN: <ul style="list-style-type: none">– 6.1 Measures to Prevent the Introduction or Spread of Invasive Plants

MIGRATORY BIRD ASSESSMENT

ASSESSMENT SUMMARY		
This proposed development: The following tables summarize the migratory birds assessment: ➤ Refer to: TA0654_Assess_MigratoryBirds		
Development Name	Determination	BMPs Required
Block 1	Rank 4 (moderately high)	One or more BMPs with DoP rank 2
Block 2	Rank 4 (moderately high)	One or more BMPs with DoP rank 2

CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS		
GENERAL - Ideally schedule harvesting for outside of the R2 Restricted Period, May 15 to July 20. If the specified end date is simply not workable, an earlier end date of July 15th may be used as an alternative. If scheduling outside of Restricted Periods is not workable, the following BMPs, which meet or exceed the BMP requirements above, have been/will be applied to this proposed development: - L01 Enduring Nest Identification (DoP Rank 2): Field crews watched for conspicuous and enduring nests during fieldwork. No enduring nests were identified. Contractors and agreement holders undertaking timber harvesting and road construction associated with this proposed development shall follow the Stop Work procedures in EFP 05 Harvesting under the BCTS Environmental Management System (EMS) if a previously unidentified active nest is encountered. If unsure whether a nest is active vs. inactive, follow the Stop Work procedures in EFP 05. - L04 Wildlife Tree, Snag and Stub Retention (unplanned) (DoP Rank 1, 2): Contractors and agreement holders undertaking timber harvesting and road construction associated with this this proposed development shall retain windfirm snags and stubs that do not present a safety hazard as per the Schedule B / Harvest Plan. It is important at all times when planning and implementing activities related to wildlife tree retention to meet WorkSafe BC Regulations. - PI2 Planned Retention (DoP rank 2): Wildlife Tree Retention Areas (WTRAs) have been designated for this TSL, according to FSP Appendix 3, and provide high-value habitat for Migratory Birds. The attributes of these WTRAs are described below within the Support Document. - Follow chance find procedures (Migratory Bird SOP step 16).		
BCTS ACTION ITEMS		
GENERAL - Ensure contractors receive Migratory Bird training requirements (Migratory Bird SOP step 1).		
REFER TO THE FOLLOWING FOR ADDITIONAL INFORMATION		
- None		

RANGE ASSESSMENT

ASSESSMENT SUMMARY
RANGE AGREEMENT HOLDER REFERRALS <p>This proposed development does not overlap active Range Tenures. There are no known natural range barriers associated with the proposed development. No referrals are required.</p>
RANGE OFFICER REFERRALS <p>This proposed development does not overlap active Range Tenures. No referrals are required.</p>
CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS
– None
BCTS ACTION ITEMS
– None
REFER TO THE FOLLOWING FOR ADDITIONAL INFORMATION
SITE PLAN: <ul style="list-style-type: none">– 6.2 Measures to Mitigate the Loss of Natural Range Barriers

RECREATION ASSESSMENT

ASSESSMENT SUMMARY
INTERPRETIVE FOREST SITE, RECREATION SITE OR RECREATION TRAILS IDENTIFIED ON FDU MAPS <p>This proposed development is not within or adjacent to an established interpretive forest site, a recreation site or a recreation trail identified on the FDU maps.</p>

However, the following features are in the general vicinity of the proposed development:

Interpretive Forest Sites: None.

Recreation Sites: Kokanee Area - REC262198

- Overlap/adjacency: Approximately 50 m north of the northern block boundary of Block 2.
- Legal Objectives: This feature does not have any known established legal objected.
- Agreement or Tenure Holder: Not reviewed.
- Management of proposed development in relation to this recreation feature: None.
- Proposed Development may affect this recreation feature (if yes, a FRR Section 16 letter is required): No

Recreation Trails: West Kokanee Creek Trail - REC2223

- Overlap/adjacency: Nearest GIS location is 50 m west of the SW corner of Block 1. It heads west, away from Block 1. The actual trail location is expected to be further west.
- Legal Objectives: This feature does not have any known established legal objected.
- Agreement or Tenure Holder: Not reviewed.
- Management of proposed development in relation to this recreation feature: None
- Proposed Development may affect this recreation feature (if yes, a FRR Section 16 letter is required): No

FRR SECTION 16 AUTHORIZATION

This proposed development: A Forest Recreation Regulation Section 16 authorization letter is not required. The Recreation Officer was not referred under the operational plan.

OTHER RECREATION TRAILS, SITES OR FEATURES

This proposed development is not within or adjacent to a known interpretive forest site, a recreation site or a recreation trail **not** identified on the FDU maps.

However, the following features are in the general vicinity of the proposed development:

Block 2: Forest information sign – A sign about stand dynamics is on the west side of the Kokanee Glacier Park Road, roughly west of Block 2’s FC14. This sign is not designated as an interpretive forest site and it does not appear on the FDU maps.

License – License of Occupation

This proposed development is not within or adjacent to a known License of Occupation area.

CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS

RECOMMENDATIONS FOR MANAGING PUBLIC SAFETY

The road systems in the area are frequently used by ATVs, snowmobiles, hikers, hunters, mountain bikers, berry pickers, campers and outdoor enthusiasts. The following recommendations are made to assist in ensuring public safety.

- Keep roads free of debris and in good working order. Operations must be conducted to ensure public safety.
- Use appropriate radio communication when traveling along roads.
- Post clear signage informing the public of harvesting and/or hauling activities. Signage content must follow WorkSafeBC regulations. The placement of signage must be strategic in terms of the location of operational activities and must specifically address the expectation of industrial operations.

BCTS ACTION ITEMS

- None

REFER TO THE FOLLOWING FOR ADDITIONAL INFORMATION

SITE PLAN:

- 5.7 Recreation Resources

RIPARIAN ASSESSMENT

ASSESSMENT SUMMARY

FSP 5.3.1.5 RESULT 1

FPPR SECTIONS 47, 48, & 49

This proposed development: Riparian area classification has been done in accordance with FPPR Sections 47, 48 and 49.

FPPR SECTION 50 (RESTRICTIONS IN A RMA)

This proposed development has roads that will be constructed within Riparian Management Areas (RMAs) of classified riparian features.

Block 1: Kokanee6500 (crossing S6-1 sunset Creek, S6-3, S6-5, and S6-6)

- o There is no other practicable option for locating the road FPPR 50(1)(b).
- o The road is required as part of a stream crossing FPPR 50(1)(c).

Block 2: None

FPPR SECTION 51 (RESTRICTIONS IN A RRZ)

This proposed development is not within or adjacent to any Riparian Reserve Zones (RRZs). There are no requirements under FPPR Section 51 that are applicable to this proposed development.

FPPR SECTION 52(2) (RESTRICTIONS IN A RMZ, STREAM BANK AND CHANEL STABILITY)

This proposed development is not within or adjacent to any Riparian Management Zones (RMZs) for S4, S5 or S6 that

- (a) are a direct tributary to S1, S2 or S3 streams, FPPR 52(2)(a), or
- (b) flow directly into the ocean FPPR 52(2)(b)&(c).

There are no requirements under FPPR 52(2) that are applicable to this proposed development.

FPPR SECTION 53 (TEMPERATURE SENSITIVE STREAMS)
This proposed development: Is not within or adjacent to any Riparian Management Areas (RMAs) for any temperatures sensitive streams as there are no temperature sensitive streams designated within any of the FDUs identified in the FSP as of the submission date of the FSP. There are no requirements under FPPR 53 that are applicable to this proposed development.

FSP 5.3.1 5 RESULT 2B - RIPARIAN ASSESSMENT
This proposed development:
A Riparian Assessment was completed for the proposed development. For the purposes of FSP 5.3.1 5 Result 2b, all tree retention levels within all RMZs inside a cutblock were met. Results are summarized within the Riparian Assessment.

➤ **Refer to: TA0654_Assess_Riparian**

CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS

SITE PLAN REQUIREMENTS
5.3.1.5 Water, Fish, Wildlife and Biodiversity within Riparian Areas

- Strategy 2e (falling/yarding/skidding away from riparian features)
- Strategy 2f (removing introduced slash and debris from stream channels)
- Strategy 2h (designated crossings)
- Strategy 2g (limiting coarse woody debris and sediment inputs to streams)

GENERAL

- Hand-falling may be required in areas.
- All natural drainage patterns (incl. watercourses, seepages, & dry swales/gullies) must be maintained & left free of debris (slash/soil) that could result in redirection of surface runoff.
- Minimize crossings of MFZ areas.
- Culvert installation must be consistent with Construction Summary tables, or as otherwise directed by a QRP.

FPPR Section 50 (Restrictions in a RMA).
Block 1: Kokanee6500 (stream crossing of S4-1)

- Do not carry out road maintenance activities beyond the clearing width of the road, except as necessary to maintain a stream crossing. FPPR 50(2).
- Do not remove gravel or other fill from within a riparian management area in the process of constructing, maintaining or deactivating a road, unless FPPR 50(3),
 - (a)the gravel or fill is within a road prism,
 - (b)the gravel or fill is at a stream crossing, or
 - (c)there is no other practicable option.

BCTS ACTION ITEMS

SITE PLAN REQUIREMENTS
5.3.1.5 Water, Fish, Wildlife and Biodiversity within Riparian Areas

- Strategy 2c (ongoing monitoring of stream function)

GENERAL

- Review the requirements above with Contractors and Agreement Holders during pre-works.

REFER TO THE FOLLOWING FOR ADDITIONAL INFORMATION

SITE PLAN

- 5.3.1.5 Water, Fish, Wildlife and Biodiversity within Riparian Areas

SUPPORT DOCUMENT

- Terrain Assessment Summary
- Watershed Assessment Summary

SOIL ASSESSMENT

ASSESSMENT SUMMARY								
HAZARD RATINGS					SOIL CHARACTERISTICS			
Block	SU	Soil Comp	Soil Disp	Soil Erosion	Depth to Unfavourable Subsoil		Type of Unfavourable Subsoil	Sediment Delivery Risk (Community Watersheds)
					Min. (cm.)	Max. (cm.)		
1	1	M	M	H	61	90	Boulders	NA
	2	L	H	H	30	60	Clean sand	NA
	3	L	H	H	61	90	Boulders	NA
	4	M	M	H	61	90	Boulders	NA
2	1	M	M	H	33	90	None noted	NA
	2	M	M	H	35	90	None noted	NA
<p>Block 1: No SP Plot was completed within SU4. SU1 Plot 1 is 30m uphill of this SU; data from this plot was applied to SU4.</p> <p>SENSITIVE SOILS This proposed development does not have any SUs predominantly composed of sensitive soils.</p>								

CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS
SITE PLAN REQUIREMENTS 5.1 Soils <ul style="list-style-type: none"> – Strategy 3 (construction of an excavated or bladed trail or road not previously identified in this plan) – Strategy 4 (documentation, notification, and adherence to assessments)
BCTS ACTION ITEMS
<ul style="list-style-type: none"> – None
REFER TO THE FOLLOWING FOR ADDITIONAL INFORMATION
SITE PLAN <ul style="list-style-type: none"> – 5.1 Soils – 5.8.1 Road Maintenance – 5.8.2 Road Deactivation – 5.8.3 Revegetation Following Road Construction and Deactivation

TERRAIN ASSESSMENT

ASSESSMENT SUMMARY
<p>TERRAIN STABILITY ASSESSMENT MODEL</p> <p>The BCTS Terrain Stability Management Model was applied for this proposed development. Less than 5% of this proposed development’s HUs overlap Potentially Unstable Terrain Polygons, and less than 1% overlaps Unstable Terrain Polygons. The Terrain Stability Decision & Documentation Tool was completed on Aug 11, 2017 by Richard Cane, RPF of Atlas Information Management and indicated that an assessment was required.</p> <p><i>TSA REPORT</i></p> <p>A Terrain Stability Assessment was completed by Sitkum Consulting Ltd.(Marc Deschênes, B.Eng., C.A.A Professional Member) on March 28, 2020. All changes suggested by Sitkum in developing the final TSA Report have been incorporated into this TSL.</p> <p>All relevant Landslide Hazards, Partial Risks, Residual Risks, Analysis and Assessments are estimated to be Low to Very Low.</p> <p>➤ Refer to: TA0654_Assess_TSA</p> <p><i>TSA ADDENDUM</i></p> <p>TA0654 has been modified since the TSA was completed. Beginning segments of the Kokanee6500 and Kokanee8100 roads have since been designated as BCTS FSRs to be constructed in advance of TSL operations. Documentation and Mapping in the TSA do not reflect this updated configuration. Email correspondence with Sitkum has been filed as an addendum to the TSA to reconcile construction recommendations for the Kokanee8100 FSR where the construction is no longer to a temporary standard.</p> <p>➤ Refer to : TA0654_Assess_TSA_Addendum</p> <p><i>PROHIBITIONS REGARDING THE CONSTRUCTION OF EXCAVATED OR BLADED TRAILS OR ROADS NOT PREVIOUSLY IDENTIFIED IN THIS PLAN</i></p> <p>The circumstances for prohibiting the construction of excavated or bladed trail or roads not previously identified in this plan were not identified during the assessment.</p>
CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS
SITE PLAN REQUIREMENTS 5.1 Soils <ul style="list-style-type: none"> – Strategy 3 (construction of an excavated or bladed trail or road not previously identified in this plan) – Strategy 4 (documentation, notification, and adherence to assessments) GENERAL <ul style="list-style-type: none"> – Refer to the TSA Report in its entirety, including: <ul style="list-style-type: none"> – Section 5.0 RECOMMEDATIONS: for recommendations to reduce the likelihood of redirected runoff and landslide initiation. – Appendix B – Road Construction Recommendations Summary Table: for summarized specific road construction recommendations. – Appendix C – Figures. – Refer to the TSA Addendum for additional road construction recommendations for the Kokanee6500 FSR – Follow TSA Report recommendations unless otherwise directed and documented by a Qualified Registered Professional (QRP).
BCTS ACTION ITEMS
GENERAL <ul style="list-style-type: none"> – Review the requirements with Contractors and Agreement Holders during pre-works.
REFER TO THE FOLLOWING FOR ADDITIONAL INFORMATION
SITE PLAN RESULTS AND STRATEGIES SECTIONS <ul style="list-style-type: none"> – 5.1 Soils – 5.4.1 Water in Community Watersheds – 5.4.2 Consumptive Use Streams – 5.8.1 Road Maintenance – 5.8.2 Road Deactivation – 5.8.3 Revegetation Following Road Construction and Deactivation

SUPPORT DOCUMENT <ul style="list-style-type: none"> – Riparian Assessment Summary – Watershed Assessment Summary

VISUAL ASSESSMENT

ASSESSMENT SUMMARY
<p>VISUAL ASSESSMENT</p> <p>This proposed development is mostly overlapped by areas with an Established Visual Quality Objective: Visual Landscape Inventory (VLI) Polygons #97 and #99. These polygons have an Established Visual Quality Objective (EVQO) of <i>Partial Retention</i>. The only area in the development that is not overlapped by one of those polygons, is approximately 6.6 ha in the SW of Block 1 (see SP map). That area does not have an EVQO.</p> <p>A Visual Impact Assessment was completed by Coastfor Enterprises (VIA-1004), based on the Forest and Range Evaluation Program (FREP) Protocol for Visual Quality Effectiveness Evaluation Procedures and Standards. The final determination of the VIA was:</p> <p>The altered forest landscape resulting from the Proposed Development, when considered alongside the existing alterations, meets the <i>Partial Retention</i> category of altered forest landscape as defined in FPPR 1.1, as seen from all identified Significant Public Viewpoints. The resultant altered forest landscape will be:</p> <ul style="list-style-type: none"> (i) easy to see, (ii) medium in scale, and (iii) natural and not rectilinear or geometric in shape <p>This altered forest landscape falls below the upper confines of the <i>Partial Retention</i> category of altered forest landscape applicable to the scenic area.</p> <p>➤ Refer to: TA0654_Assess_Visual</p>
CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS
<ul style="list-style-type: none"> – None
BCTS ACTION ITEMS
<ul style="list-style-type: none"> – None
REFER TO THE FOLLOWING FOR ADDITIONAL INFORMATION
<p>SITE PLAN:</p> <ul style="list-style-type: none"> – 5.5. Visual Quality - Scenic Areas and Visual Quality Objectives

WATERSHED ASSESSMENT

ASSESSMENT SUMMARY
<p>HYDROLOGIC / EQUIVALENT CLEARCUT AREA ASSESSMENT</p> <p>This proposed development: The 20170511_WADF_LLA (Landscape Level Analysis), which includes this proposed development, was completed by BCTS on June 5, 2017 and includes ECA analyses. Those analyses were informally updated by BCTS in May of 2017. This proposed development is located within the Kokanee Creek Watershed and the Kokanee Main sub-basin, for which the updated post-harvest ECAs are 5.7% and 2.4%, respectively. These low ECA values represent a low hydrological risk. Based on this information, BCTS made the decision <u>not</u> to complete a full hydrological assessment.</p> <p>COMMUNITY WATERSHEDS</p> <p>This proposed development is not located within a Community Watershed.</p> <p>FPPR SECTIONS 60(2), 61, 62, & 63:</p> <p>There are no requirements under these FPPR Sections that are applicable.</p> <p>DOMESTIC WATERSHEDS</p> <p>This proposed development overlaps the Kokanee Main Domestic Watershed.</p> <p>DOMESTIC WATER LICENSES</p> <p>This proposed development: There are no PODs or water lines within or adjacent to this proposed development. The nearest “licensed waterworks” are numerous domestic water licenses about 5 km downstream on S5-1 Kokanee Creek after the class change to S3 below an identified barrier to fish passage.</p> <p>FPPR SECTION 59 (PROTECTING WATER QUALITY):</p> <p>Primary forest activity will not cause material that is harmful to human health to be deposited in, or transported to, water that is diverted for human consumption by a licensed waterworks.</p> <p>FPPR SECTIONS 60(1) (LICENSED WATERWORKS):</p> <p>Primary forest activity will not damage a licensed waterworks.</p> <p>CONSUMPTIVE USE STREAMS</p> <p>This proposed development: This proposed development: An assessment was performed to identify any Consumptive Use Streams and Streamside Management Zones, located within or adjacent to the proposed development, per the criteria in KBHLPO Objective 6. The following stream segments s meets the definition of Consumptive Use Streams with Streamside Management Zones. The segments are described below, progressing from the catchment outflow towards the headwaters.:</p> <ol style="list-style-type: none"> Blocks 1& 2: S5-1 Kokanee Creek <ul style="list-style-type: none"> o Above a Habitat Wizard identified barrier to fish passage (falls, UTM 11U 490361 E, 5495809 N), where the FPPR Section 47stream classification changes from S3 (or possibly S2/S1B, irrelevant) to S5

<ul style="list-style-type: none"> o Below the stream order change from 5 to 4, where two fourth order streams meet (UTM 11U 488951 E, 5506415 N). <p>➤ Refer to: TA0654_Assess_Watershed_ConsumptiveUseStreams</p> <p><i>KBHLOP OBJECTIVE 6 SPECIFIC MEASURES TO SAFEGUARD WATER LICENSED FOR HUMAN CONSUMPTION WITHIN STREAMSIDE MANAGEMENT ZONES</i></p> <p>This proposed development does not overlap any Streamside Management Zones. There are no requirements under KBHLPO Objective 6 that are applicable to this cutblock.</p>
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CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS

<p>SITE PLAN REQUIREMENTS</p> <ul style="list-style-type: none"> – None <p>GENERAL</p> <ul style="list-style-type: none"> – Refer to the TSA and those sections within this Support Document for any identified risks and mitigating factors to minimize those risks. – Forest activities are not expected to damage or cause harmful material to be deposited in, or transported to these water licenses. Regardless, using normal good harvesting and road-building practices will minimize any potential impact. Poor practices can easily lead to sedimentation and other impacts to water quality to the domestic water licenses. – Post-harvest rehabilitation including water control is important in controlling impacts to water sources.
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BCTS ACTION ITEMS

<p>GENERAL</p> <ul style="list-style-type: none"> – Review the requirements with Contractors and Agreement Holders during pre-works. – Continue tracking ECAs in the watershed to ensuring hydrologic risk is being maintained at appropriate levels

REFER TO THE FOLLOWING FOR ADDITIONAL INFORMATION

<p>SITE PLAN</p> <ul style="list-style-type: none"> – 5.4.1 Water in Community Watersheds – 5.4.2 Consumptive Use Streams <p>SUPPORT DOCUMENT</p> <ul style="list-style-type: none"> – Riparian Assessment Summary – Terrain Assessment Summary

WILDLIFE ASSESSMENT

<p>ASSESSMENT SUMMARY</p> <p>FPPR 7(2) NOTICES AND GAR 9-13 ORDERS</p> <p>This proposed development: At the time of signing and sealing of this Support Document, the following Notices under FPPR Section 7(2) and Orders under the GAR Sections 9 to 13 are applicable to the proposed development:</p> <ul style="list-style-type: none"> – Categories of Species at Risk. Made under authority of section 13(1) of the GAR (in effect May 3, 2004, May 30, 2005, Jun 6, 2006 and Jul 18, 2011) – Wildlife Habitat Features in the Kootenay Boundary Region (Order M213). Made under the authority of section 11 (1) of the GAR (in effect Jul 1, 2018). <p><i>WILDLIFE HABITAT FEATURES IN THE KOOTENAY BOUNDARY REGION</i></p> <p>This Order established Wildlife Habitat Features (WHFs) (a) through (n) (e.g. stick nests, cavity nests, burrows, dens, licks, wallows, high value wildlife trees, roosts and springs), wherever they are found within the Kootenay Boundary Regions. These WHFs and this GAR Order relates, but are not limited, to FPPR 72(2).</p> <p>This proposed development:</p> <p>Field crews exhibited due care an attention in watching for suspect WHFs during the normal course of forest development activities and none were identified, either within or adjacent to the proposed development.</p> <p><i>CATEGORIES OF SPECIES AT RISK</i></p> <p>This Order establishes a list of species of wildlife that are a category of species at risk (SAR) that may be affected by forest or range management on Crown land and require protection in addition to that provided by other mechanisms.</p> <p>This proposed development:</p> <p>Field crews exhibited due care an attention in watching for suspect SAR during the normal course of forest development activities and none were identified, either within or adjacent to the proposed development.</p> <p>BC CONSERVATION DATA CENTRE</p> <p>This proposed development: A March 17, 2020 query of the BC Conservation Data Center did not identify any terrestrial species of management concern overlapping or adjacent (within 4kms) to this proposed development.</p> <p>BCTS SPECIES OF MANAGEMENT CONCERN</p> <p>This proposed development: Field work associated with this proposed development did not identify any of the species of management concern recorded within BCTS’ “Species of Management Concern in the Kootenay Business Area” (BCTS, updated 2019).</p>
<p>CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS</p> <p>SITE PLAN REQUIREMENTS</p> <p>5.3.2.4 Species at Risk, Regionally Important Wildlife, Ungulate Winter Range and Wildlife Habitat Areas</p> <ul style="list-style-type: none"> – Strategy 2c (information packages for SAR and wildlife habitat features)

<div><div><div><div><div><div></div></div></div><div><div><div></div></div><div><div></div></div></div><div><div><div></div></div><div><div></div></div></div><div><div><div></div></div></div></div><div>– Strategy 2d (actions related to SAR or wildlife habitat feature identification during active forest development activities)</div></div></div>
<div>5.3.2.5 Encounters with Wildlife Habitat Features</div> <div><div><div></div></div><div><div></div></div></div> <div>– Strategy 2 (actions related to wildlife habitat features not previously identified and accommodated in the plan)</div>

WINDTHROW ASSESSMENT

<div>ASSESSMENT SUMMARY</div>
<div><div>This proposed development: A windthrow assessment was completed for the proposed development. No windthrow concerns were noted in the field.</div><div><div><div></div></div><div><div></div></div></div><div><div><div></div></div><div><div></div></div></div><div>➤ Refer to: TA0654_Bk1_WAW-018_Assess_Windthrow</div><div>➤ Refer to: TA0654_Bk2_WAW-017_Assess_Windthrow</div></div> <div>Windthrow assessment matrices indicate a moderate windthrow hazard for leave trees and block edges. There is low existing blowdown in all blocks. Canadian Wind Energy Atlas data was incorporated into the assessments. Schedule B retention targets windfirm species.</div>
<div>CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS</div>
<div>GENERAL</div> <div><div><div></div></div><div><div></div></div></div> <div>– Develop a safe work when working around leave trees and timbered block edges.</div>

LICENSE & TENURE HOLDERS ASSESSMENT

<div>ASSESSMENT SUMMARY</div>
<div><div>TRAPLINE LICENSES</div><div>This proposed development overlaps Trapline Tenure TR0418T003. Referrals were not provided because there was no listing in the trappers contact list.</div></div> <div><div>GUIDE OUTFITTER LICENSES</div><div>This proposed development does not overlap a Guide Outfitting Tenure.</div></div> <div><div>PRIVATE LAND TENURES</div><div>This proposed development is not adjacent to any private land.</div></div>
<div>CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS</div>
<div>GENERAL</div> <div><div><div></div></div><div><div></div></div></div> <div>– Contractors and Agreement Holders should confirm action items related to License & Tenure Holders during pre-works.</div>

RESERVE / RETENTION INFORMATION

WILDLIFE TREE RETENTION

ASSESSMENT SUMMARY						
<div>GROUPED WILDLIFE TREE RETENTION AREAS (WTRA)</div> <div><div>➤ Refer to:</div><div>TA0654_Bk1_WAW-018_WTRA_Cards</div><div>TA0654_Bk1_WAW-018_WTRA_Photos</div><div>TA0654_Bk2_WAW-017_WTRA_Cards</div><div>TA0654_Bk2_WAW-017_WTRA_Photos</div></div> <div>This Proposed Development:</div>						
2(a). WTRAs (Inside or attributed to the block)						
Block	I.D.#	Area (ha)	Inventory Label	RESULT S Reserve Type	RESULT S Objective Code	Description (The composition is based on the Mature Dominate Species from the WTRA Assessment Cards)
1	1	3.2	37466426 FdiHw(EpBl) 645-0/19 sl	WTRA	RMA	<p>This WTRA slightly south of the center of the block. It is comprised of approximately: Fd 30%, Cw 20%, Hw 20%, At 10%, Ep10% and Bl 10%, at 23-30 m tall with 40-60 cm DBH, 0-20% CC and 800 sph. The primary purposes of this WTRA are:</p> <div><div>1.</div><div>To preserve the vast majority of S6-3 and S6-4’s RMAs.</div></div> <div><div>2.</div><div>To remove an avalanche path from the HU.</div></div> <div><div>3.</div><div>To remove a steep gully from the HU.</div></div> <div><div>4.</div><div>To remove low volume/productivity area from the HU.</div></div> <div><div>5.</div><div>To preserve other high value wildlife trees.</div></div> <div><div>6.</div><div>To improve visual quality.</div></div>
	2	0.1	39036734 HwCw(AtFdiLwPli) 536-0/18 \$	WTRA	RMA	<p>This WTRA is in the north eastern block corner. It is comprised of approximately: Hw 50%, Cw 40% and At 10%, at 25-32+ m tall with 25-35+ cm DBH, 60% CC and 600 stems/ha. The primary purposes of this WTRA are:</p> <div><div>1.</div><div>To preserve part of S6-2’s RMA.</div></div> <div><div>2.</div><div>To preserve other high value wildlife trees.</div></div> <div><div>3.</div><div>To preserve habitat for wildlife and migratory birds.</div></div> <div><div>4.</div><div>To improve visual quality.</div></div>
1	WTRA Total	3.3				
2	1	3.5	39177763 HwCw(Fdi) 636-0/12	WTRA	RMA	<p>This WTRA is just south of the center of the block. It is comprised of approximately: Cw 50%, Hw 40% and At 10%, at 20-30 m tall with 20-40 cm DBH, 10% CC and 200 stems/ha. The primary purposes of this WTRA are:</p> <div><div>1.</div><div>To preserve S6-2’s RMA.</div></div> <div><div>2.</div><div>To remove an avalanche path from the HU.</div></div> <div><div>3.</div><div>To remove low volume/productivity area from the HU.</div></div> <div><div>4.</div><div>To preserve habitat for wildlife and migratory birds.</div></div> <div><div>5.</div><div>To improve visual quality.</div></div>
	2	0.7	39177763 HwCw(Fdi) 636-0/12	WTRA	RMA	<p>This WTRA is just west of the center of the block. It is comprised of approximately: Cw 40%, Hw 40%, Fd 10% and At 10% at 23-30 m tall with 33-50 cm DBH, 20% CC and 1,000 stems/ha. The primary purposes of this WTRA are:</p> <div><div>1.</div><div>To preserve some of S6-1’s RMA.</div></div> <div><div>2.</div><div>To remove a potential avalanche path from the HU.</div></div> <div><div>3.</div><div>To remove low volume/productivity area from the HU.</div></div> <div><div>4.</div><div>To preserve habitat for wildlife and migratory birds.</div></div>

						5. To preserve other high value wildlife trees. 6. To improve visual quality.
	3	0.9	39177763 HwCw(Fdi) 636-0/12	WTRA	TER	This WTRA is in the NE section of the block. It is comprised of approximately: Cw 60%, Hw 20%, Fd 10% and Sx 10% at 22-25+ m tall with 20-30+ cm DBH, 75% CC and 900 stems/ha. The primary purposes of this WTRA are: 1. To retain stems in an area that could become an avalanche initiation zone if it were harvested. 2. To remove area with insufficient deflection from a cable HU. 3. To preserve some of the area around NCD-7. 4. To preserve habitat for wildlife and migratory birds. 5. To preserve other high value wildlife trees. 6. To improve visual quality.
	4	0.2	39177763 HwCw(Fdi) 636-0/12	WTRA	TER	This WTRA is in the NE section of the block. It is comprised of approximately: Cw 70%, Fd 20% and Hw 10% at 24-26+ m tall with 25-35+ cm DBH, 70% CC and 1,100 stems/ha. The primary purposes of this WTRA are: 1. To retain stems in what could become an avalanche initiation zone if it were harvested. 2. To preserve some of the area around NCD-2. 3. To preserve habitat for wildlife and migratory birds. 4. To preserve other high value wildlife trees. 5. To improve visual quality.
	5	0.5	39177763 HwCw(Fdi) 636-0/12	WTRA	TER	This WTRA is just SE of the center of the block. It is comprised of approximately: Cw 40%, Hw 40%, Fd 10% and At 10% at 25-30 m tall with 30-40 cm DBH, 50% CC and 600 stems/ha. The primary purposes of this WTRA are: 1. To retain stems in what could become an avalanche initiation zone if it were harvested. 2. To preserve some of the area around NCD-1. 3. To preserve habitat for wildlife and migratory birds. 4. To preserve other high value wildlife trees. 5. To improve visual quality.
2	WTRA Total	5.8				

DISPERSED WILDLIFE TREE RETENTION

Contribution of areas of individual trees and clumps or patches (disbursed retention) which are less than 0.25 ha in size that will contribute to the required WTRA percentage on the basis of the total basal area of the trees retained divided by the average basal area of the associated forest type (FSP 5.3.1.7 Strategy 2c). Calculations below are made at the block level, which as a weighted average of the forest types within each block, is in compliance with the FSP.

Block	NAR (ha)	Retained BA (m2/ha)	Total BA (m2/ha)	BA % Retained	BAREA* (ha)
1	18.8	0.0	44.8	0%	0.0
2	27.8	1.1	46.6	2%	0.7
Green Cells Auto-Calculate					

* Basal Area Retention Equivalent Area = $\frac{\text{Retained } m^2/ha \text{ (block level from Leave Tree Report)}}{\text{Total } m^2/ha \text{ (block level from Full Compilation)}} * NAR$

BLOCK AND TSL LEVEL WTRA RETENTION CALCULATIONS

Block	NAR + PAS Area (ha)	Grouped WTRA (ha)	Dispersed WTRA (ha) (BAREA)	Total WTRA Area (ha)	WTRA % of NAR + PAS
1	20.1	3.3	0.0	3.3	16.4%
2	29.1	5.8	0.7	6.5	22.3%
TSL Total	49.2	9.1	0.7	9.8	19.9%
Green Cells Auto-Calculate					

CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS
SITE PLAN REQUIREMENTS 5.3.1.7 Wildlife and Biodiversity – Stand Level <ul style="list-style-type: none"> – Strategy 3 (prior authorization for altering to a WTRA) – Strategy 4 (reasons for altering a WTRA) – Strategy 5 (documenting alterations to a WTRA and replacement WTRA)
BCTS ACTION ITEMS
– None
REFER TO THE FOLLOWING FOR ADDITIONAL INFORMATION
SITE PLAN: – 5.3.1.7 Wildlife and Biodiversity – Stand Level

RESERVES

ASSESSMENT SUMMARY						
RESERVES						
2(a). Reserves (Inside or attributed to the block)						
Block	I.D.#	Area (ha)	Inventory Label	RESULTS Reserve Type	RESULTS Objective Code	Comments
1	1	7.1	37466426 FdiHw(EpBl) 645-0/19 sl	Group	TIM	<p>The primary purposes of this reserve are:</p> <ol style="list-style-type: none"> 1. To remove potential avalanche paths from the HU. 2. To remove low volume/productivity area from the HU. 3. To preserve the vast majority of S6-5 and S6-6’s RMAs, and some of the area around NCD-4. 4. To preserve habitat for wildlife and migratory birds. 5. To preserve high value wildlife trees. 6. To preserve visual quality. <p>This Reserve will NOT be locked up as a WTRA and will be eligible for harvesting after green-up of the surrounding HU.</p>
2	1	1.9	40477565/L PliSeBl 732-0/13 He, sl \$103	Group	TIM	<p>The primary purposes of this reserve are:</p> <ol style="list-style-type: none"> 1. To remove low volume/productivity area from the HU. 2. To remove a potential avalanche path from the HU. 3. To preserve some of S6-1’s RMA, and some of the area around NCD-8. 4. To preserve habitat for wildlife and migratory birds. 5. To preserve high value wildlife trees. 6. To preserve visual quality. <p>This Reserve will NOT be locked up as a WTRA and will be eligible for harvesting after green-up of the surrounding HU.</p>
	2	3.7	40477565/L PliSeBl 732-0/13 He, sl \$103	Group	TIM	<p>The primary purposes of this reserve are:</p> <ol style="list-style-type: none"> 1. To remove low volume/productivity area from the HU. 2. To remove a potential avalanche path from the HU. 3. To preserve some of S6-1’s RMA, and some of the area around NCD-8. 4. To preserve habitat for wildlife and migratory birds. 5. To preserve high value wildlife trees. 6. To preserve visual quality. <p>This Reserve will NOT be locked up as a WTRA and will be eligible for harvesting after green-up of the surrounding HU.</p>
CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS						
– None						
BCTS ACTION ITEMS						
– None						

REFER TO THE FOLLOWING FOR ADDITIONAL INFORMATION																
– None																

ACCESS SUMMARY

PERMANENT ACCESS STRUCTURES

ASSESSMENT SUMMARY																
PERMANENT ACCESS STRUCTURES																
Block		PAS Limit Without		Planned Roads				Planned Trails				Planned Landings			Est. PAS	
#	Gross Block Area (ha)	% of GBA	Area of GBA (ha)	Rd. Name	Length (m)	Width (m)	Area (ha)	Trail Name / #	Length (m)	Width (m)	Area (ha)	# Landings	Size (ha)	Area (ha)	Total Area (ha)	% of Total Blk Area
1	30.5	7%	2.14	Kokane6500	938	14	1.31	None			0.00	0		0.00	1.31	4.3%
2	40.5	7%	2.84	Kokanee8100	180	9	0.16	None			0.00	0		0.00	1.33	3.3%
				Kokanee8500	1,210	9	1.09	None			0.00	0		0.00		
				Kokanee8510	90	9	0.08	None			0.00	0		0.00		
Green Cells Auto-Calculate																

Note: The spatially derived PAS on the Site Plan Map is the actual PAS calculation. However, the tabular calculations above provide General context for these values; lengths and widths have been adjusted to ensure the final areas match the spatially derived PAS.

FPPR SECTION 36 (PERMANENT ACCESS STRUCTURE LIMITS):
This proposed Development: The maximum amount of area in a cutblock that can be occupied by permanent access structures (PAS), without a rationale, is 7%. The PAS associated with this cutblock is less than 7%.

CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS																
SITE PLAN REQUIREMENTS																
5.1 Soils																
– Result or Strategy 1 (FPPR section 35 permanent access structure limit requirements)																
5.8.1 Road Maintenance																
– FPPR Section 79 (FPPR required road maintenance)																
– Strategy 1 (site plan required road maintenance)																
5.8.2 Road Deactivation																
– FPPR Section 82 (FPPR required road deactivation)																
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TEMPORARY ACCESS STRUCTURES

ASSESSMENT SUMMARY																
TEMPORARY ACCESS STRUCTURES																
Pre-Rehabilitation Maximum Allowable Soil Disturbance (MASD) Calculations for Planned Temporary Access Structures																
Block & SU		MASD Final Limit		MASD Temp Exceeded		Planned Roads				Planned Trails				Est. Pre-Rehab Soil Disturbance		
SU	NAR (ha)	% of NAR	Area (ha)	% of NAR	Area (ha)	Rd. Name	Length (m)	Width (m)	Area (ha)	Trail Name / #	Length (m)	Width (m)	Area (ha)	Area (ha)	% of NAR	
Bk1 SU1	4.0	10%	0.40	5%	0.20	KLR22873_1Kokane6500	130	10	0.13	None	-	-	0.00	0.13	3.3%	
Bk1 SU2	5.7	10%	0.57	5%	0.29	None	-	-	0.00	None	-	-	0.00	0.00	0.0%	
Bk1 SU3	6.7	10%	0.67	5%	0.34	None	-	-	0.00	None	-	-	0.00	0.00	0.0%	
Bk1 SU4	2.4	10%	0.24	5%	0.12	KLR22873_1Kokane6500	200	10	0.20	None	-	-	0.00	0.20	8.3%	
Bk2 SU1	21.0	10%	2.10	5%	1.05	KLR22873_3Kokane8510	286	10	0.29	None	-	-	0.00	0.29	1.4%	
BK2 SU2	6.8	10%	0.68	5%	0.34	KLR22873_2Kokane8100	265	10	0.27	2 yarder & 1 backspars trails	170	5	0.09	0.35	5.1%	
Green Cells Auto-Calculate																
<p>FPPR SECTION 35 (SOIL DISTURBANCE LIMITS):</p> <p>This proposed Development: SUs associated with this cutblock are not predominantly comprised of sensitive soils. The maximum allowable soil disturbance (MASD) limit is therefore 10% of the NAR. The MASD limit for roadside work areas is 25%. The pre-rehabilitation soil disturbance estimate, resulting from planned temporary access structures, is less than the MASD limit for all SUs. Soil disturbance has been estimated based on planned temporary access structures only. Temporary access structures may exceed the MASD by a maximum of 5% of the area covered by SUs (excluding the roadside work area). Any excess must be rehabilitated prior to the regeneration date.</p> <p>Temporary landings have been excluded from these soil disturbance calculations as these are considered "roadside work areas" for which limits are calculated separately under FPPR Section 35. Any planned temporary trail lengths within temporary landings are also considered part of the “roadside work areas” and have been excluded from the above calculations.</p> <p>FRPA SECTION 52 (UNAUTHORIZED TIMBER HARVESTING):</p> <p>This proposed development has no planned trails external to cutblocks requiring a FRPA Section 52 authorization.</p>																
CONTRACTOR AND AGREEMENT HOLDER ACTION ITEMS																
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ADMINISTRATION

☒ ORIGINAL

☐ AMENDMENT#

RPF PRINTED NAME	RPF'S SIGNATURE & SEAL
RICHARD CANE, RPF	
DATE SIGNED	
06May2021	
<p>"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."</p>	