SP ORIGINAL DATE:	September 5, 2018
SP AMENDMENT #:	
SP AMENDMENT DATE:	

SITE PLAN

BLOCK IDENTIFICATION

LICENCE NO.:	FDU:	LOCATION:	MAPSHEET NUMBER:	BLOCK NUMBER:
NRFL A75807	**Ts'elxwéyeqw**	**Chilliwack Valley**	**92H.004**	**PF1**
LATITUDE: Deg: **49⁰** Min: **04' 38"**	LONGITUDE: Deg: **121⁰** Min: **20' 41"**		UTM: Zone: **10** East: **620874** North: **5437370** NAD: **83**	
SEED PLANNING ZONE: **Submaritime**	ELEVATION RANGE: **1340m – 1460m**	AIR PHOTO No's: **30BCC02025 168, 169**	ASPECT: **Southwest**	TOTAL AREA UNDER THE PLAN (ha): **16.6ha**

ECOLOGICAL CLASSIFICATION AND AREA SUMMARY (FPPR 34(1)(a))

Area Classification								Area Summary (ha)					
SU	Standards ID	BGZ	E.A.	Moist	Nutr	Silv. System	Harv. System	Area	PAS	NP NAT	WTP	Ret. Patch	NAR
1	1010005	MHmm2	05/01/ (07)	4	D	Clearcut with reserves	Ground/ Cable	16.6	1.0		2.6	0.4	12.6
							Area Totals	16.6	1.0		2.6	0.4	12.6

STOCKING STANDARDS (FRPA 29(1) and FPPR 34(1)(b))

FREE GROWING STOCKING REQUIREMENTS

SU	NET AREA TO BE REFORESTED (ha)	REGEN DELAY (yrs)	LATE FREE GROWING (yrs)	MAX CONIFEROUS (st/ha)	POST SPACING DENSITY (st/ha) MIN	MAX
1	12.6	7	20	10,000	900	1500

PREFERRED/ACCEPTABLE SPECIES

SU	PREFERRED SPECIES/MINIMUM HEIGHT (m)	ACCEPTABLE SPECIES/MINIMUM HEIGHT (m)
1	Ba/0.6 Se/1.00 Hm/1.00	Hw/1.00 Cw/1.00 Bl/1.00 Yc/1.00

WELL SPACED TREES/ha

SU	WELL SPACED TREES/ha TARGET	MINIMUM	MIN PREF	MIN HORIZ DISTANCE (m)	HEIGHT RELATIVE TO COMP (% OR cm)
1	900	500	400	2.0	125% (100% for Fireweed)

RATIONALE FOR CHOICE OF STOCKING STANDARDS (Based on resource objectives and site assessment.):

The stocking standard for Block PF1 was selected as per the Approved FSP Stocking Standards (August 21, 2017), the dominant ecological site classification, the pre-harvest tree species composition, and the elevation ranges at which the opening occurs.

SOILS (FPPR Sections 34(1)(b), 35 & 36)

SITE DISTURBANCE

	HAZARD RATINGS (*if logging methods other than cable or aerial are proposed*)			SOIL CHARACTERISTICS (*if temporary access structures are proposed*)			
SU	SOIL COMPACTION	SURFACE SOIL EROSION	SOIL DISPLACEMENT	DEPTH TO UNFAVORABLE SUBSOIL (cm) MIN(cm)	DEPTH TO UNFAVORABLE SUBSOIL (cm) MAX(cm)	TYPE OF UNFAVORABLE SUBSOIL	SEDIMENT DELIVERY RISK
1	L	H	M	30	50	Dense Material/ Bedrock	High

The use of a cable yarding system, as well as dispersed ground-based machine travel, will act to limit soil compaction and displacement. Puncheon should be used in wet areas to avoid rutting then removed as harvesting is completed.

SOIL DISTURBANCE LIMITS (FPPR Section 35)

SU	MAXIMUM ALLOWABLE SOIL DISTURBANCE WITHIN THE NET AREA TO REFOREST (%)	MAXIMUM EXTENT SOIL DISTURBANCE LIMITS MAY BE TEMPORARILY EXCEEDED TO CONSTRUCT TEMPORARY ACCESS STRUCTURES (%)
1	5	-

COMMENTS:

Statlu Environmental Consulting Ltd (Ryan Kremsater; Dated July 25, 2018) has completed a Terrain Stability Hazard Assessment (TSHA). Block PF1 has a 'LOW' terrain stability hazard for ground-based harvesting and no boundary adjustments are recommended. Large boulders with diameters up to 2 m are a worker safety hazard and need to be considered in the harvest plan.

Prescriptions from the TSFA relating to road construction methods are included in the Road Site Plan. The TSFA is included in the Site Plan file.

MAXIMUM PROPORTION OF TOTAL AREA UNDER PLAN ALLOWED FOR PERMANENT ACCESS **(FPPR Section 36)**: 6.0%
COMMENTS (i.e., permanent structures, including existing access, roads, landings, special stream crossing, etc.):

Permanent Access Structures Area Calculation:
Road PF1000: 1076mx9.5m = 1.0ha

The maximum proportion of total area designated for permanent access does not exceed the allowable 7% as designated in FPPR (Section 36).

MAXIMUM ALLOWABLE SOIL DISTURBANCE FOR ROADSIDE WORK AREAS

ROADSIDE HARVESTING OPERATIONS, INCLUDING DECKING, PROCESSING, LOADING AND ANY ASSOCIATED DEBRIS DISPOSAL OR PILING OPERATIONS WITHIN THE NET AREA TO BE REFORESTED MUST NOT CAUSE THE AMOUNT OF SOIL DISTURBANCE TO EXCEED: **25%**

WILDLIFE (FPPR Section 7(2))

GRIZZLY BEAR *(Ursus arctos)* **Not applicable.** Wildlife Habitat Areas (WHA) for Grizzly Bear have not been established within the Ts'elxwéyeqw FDU.
COASTAL GIANT SALAMANDER *(Dicamptodon tenebrosus)* **Applicable.** Wildlife Habitat Areas (WHA) for Coastal Giant Salamander have been established within the Ts'elxwéyeqw FDU. This block is not located within or adjacent to a Coastal Giant Salamander WHA.
PACIFIC WATER SHREW *(Sorex bendirii)* **Applicable.** Wildlife Habitat Areas (WHA) for Pacific Water Shrew have been established within the Ts'elxwéyeqw FDU. This block is not located within or adjacent to any of these WHA(s).
TALL BUGBANE *(Actaea elata)* **Applicable.** Wildlife Habitat Areas (WHA) for Tall Bugbane have been established within the Ts'elxwéyeqw FDU. This block is not located within or adjacent to any of these WHA(s).
COASTAL TAILED FROG *(Ascaphus truei)* **Not applicable.** Wildlife Habitat Areas (WHA) for Coastal Tailed Frog have not been established within the Ts'elxwéyeqw FDU.
SPOTTED OWL *(Strix occidentalis)* **Applicable.** Wildlife Habitat Areas (WHA) for Spotted Owl have been established within the Ts'elxwéyeqw FDU. This block is not located within or adjacent to any of these WHA(s).
MOUNTAIN GOAT *(Oreamnos americanus)* **Applicable.** Mountain Goat Winter Range (GWR) areas have been established within the Ts'elxwéyeqw FDU. This block is not located within or adjacent to any of these Goat Winter Range habitat areas.
BLACK-TAILED AND MULE DEER *(Odocoileus hemionus sp.)* **Applicable.** Deer Winter Range (DWR) areas have been established within the Ts'elxwéyeqw FDU. This block is not located within or adjacent to any of these Deer Winter Range habitat areas.

WATER AND FISH (FPPR Sections 12(3), 12.1(2), 47-51, 52(2) &53)

Stream, Wetland or Lake Identification	Riparian or Lake Class	Reserve Zone Width (m)	Management Zone Width (m)	% Basal Area Retention	Prescription
Streams 1, 1B	**S5**	-	**30**	**75%**	Gullied S5 reaches that connect to Stream 6. These are located outside of the boundary, and a majority of the RMA is located outside of the harvest area. Fall Away/Yard Away, and maintain as many non-merch stems and understory vegetation as possible within the RMA. Inspect the streams post-harvest and remove large woody debris inadvertently introduced to the stream during harvesting activities. The gully section adjacent to the harvest area shall be monitored for windthrow-related damage during future silviculture surveys, and mitigation measures prescribed if there is a risk of debris flow or significant sedimentation to the streams. Refer to the Road Site Plan for Terrain Hazard Assessments Recommendations regarding the stream crossing for PF1000.
Streams 5, 6	**S5**	-	**30**	**75%**	Gullied S5 reaches located outside of the boundary; a majority of the RMA is located outside of the harvest area. Fall Away/Yard Away, and maintain as many non-merch stems and understory vegetation as possible within the RMA. Inspect the streams post-harvest and remove large woody debris inadvertently introduced to the stream during harvesting activities. The gully section adjacent to the harvest area shall be monitored for windthrow-related damage during future silviculture surveys, and mitigation measures prescribed if there is a risk of debris flow or significant sedimentation to the streams.
Stream 2,4,7	**S6**	-	**20**	**20%**	Small -Moderately sized S6 streams located within the harvest Area. Fall and Yard Away and maintain as many non-merch stems and understory vegetation as possible within the RMA. Maintain a 5m Machine Free Zone on both sides of the stream channels (High stump non-merch stems along the MFZ). Remove woody debris from the streams post-harvest.

WILDLIFE AND BIODIVERSITY – LANDSCAPE LEVEL (FPPR Sections 12.1(3), 64 & 65)

This block is composed of a single harvest area equal to 16.6ha (TAUP) and 12.6ha (NAR). This block is not located adjacent to any existing or planned blocks, and therefore meets the criteria outlined in Section 65(2)(b) of the FPPR.

WILDLIFE AND BIODIVERSITY – STAND LEVEL (FPPR Sections 12.1(4) & 67)

A 2.6ha Wildlife Tree Retention Area has been identified in the area adjacent to FC11 to FC15 (See Map) to assist in meeting the Wildlife Tree Patch retention requirements within the MHmm2 biogeoclimatic subzone (8% Retention) as specified in Objective #2 of the "Legal Objectives – Chilliwack Landscape Unit" (Effective: June 24, 2005). The Wildlife Tree Patch, which is equal to 15.7% of the TAUP, is similar to the adjacent standard unit in terms of tree species composition, stand structural characteristics and ecological classification.

VISUAL QUALITY (GAR Section 17)

This development is not located within a Visual Sensitivity Unit (VSU) Polygon with an established Visual Quality Objective (VQO). A visual impact assessment is not required.

CULTURAL HERITAGE RESOURCES (FPPR Section 10)

Block PF1does not fall within any Traditional Use Polygons, and an Archeological Impact Assessment is not required for this development, as per engagement with the People of the River Referrals Office, completed June 18, 2018. No archaeological features or materials were identified within the harvest area during field activities, and no further archaeological work is recommended for PF1.

Should unanticipated cultural materials or features (including archaeological materials, culturally modified trees, or human remains) be encountered during timber harvesting and related activities, all work in the immediate area will cease and the Ts'elxwéyeqw Tribes, the Archaeology Branch and an appropriate archaeologist, as deemed by the Ts'elxwéyeqw Tribes or the TFLP, will be contacted.

INVASIVE PLANTS AND RANGE BARRIERS (FPPR Section 17)

A review of the Invasive Alien Plan Program (IAPP) Map Display (September 5, 2018) shows instances of the following invasive plants along the Chilliwack Lake FSR, which is to be used to access the opening: Scotch Broom, Common Tansy, Tansy Ragwort, St. John's Wort, Himalayan Blackberry, Cutleaf Blackberry, Bull Thistle, Oxeye Daisy. Attention to the presence of these species should be considered when engaging in harvesting as well as road maintenance and construction associated with this opening.

If infestations occur as a result of primary forest activities associated with this development, invasive materials (plants and/or seeds) will be destroyed through control measures and practices that include hand weeding, hand pulling, burning, and herbicide treatment. See the "Reforestation" section for brushing requirements and restrictions for the area.

Measures to limit the spread and/or establishment of invasive plants caused by the Licensee's forest practices are outlined in Section 2.3.1 of the Forest Stewardship Plan (August 21, 2017).

RECREATION RESOURCES AND FEATURES (FRPA Section 56)

There are no designated Recreation Sites, Trails, or Interpretive Forests in the vicinity of Block PF1.

RESOURCE FEATURES (FPPR Section 70(1))

No Karst features were identified during fieldwork activities.

If unanticipated Karst features are discovered during harvest, all work in the area to have the features properly assessed for safety and significance.

COARSE WOODY DEBRIS MANAGEMENT STATEGIES (FPPR Section 68)

A minimum of 4 logs per hectare, each being a minimum of 5m in length and 30 cm in diameter at one end, will be retained as per FPPR Section 68(a).

MAP ATTACHMENT

The Site Plan Map forms an integral part of this Site Plan.

LICENCE NO: NRFL A75807	BLOCK: PF1	MAPSHEET NO: 92H004	PAGE: 5 of 5	RUN DATE: OCTOBER 4, 2018

COMMENTS

This Site Plan is consistent with the Forest Stewardship Plan for Non-Replaceable Forest License (NRFL) A75807, which was approved on August 21, 2017

ADMINISTRATION

Prepared By:	**Chris Gruenwald**	
	Name (Printed)	
Signing RPF:	**Chris Gruenwald**	
	RPF Name (Printed)	
10/04/2018	4438	RPF Signature and Seal
Date Signed (mm/dd/yyyy)	RPF Number	Professional Signature certifies content of the Site Plan is consistent with pertinent British Columbia Forest Legislation.
		"I certify that the work described herein fulfills the standards expected of a member of the Association of British Columbia Forest Professionals and that I did personally supervise the work."
		"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."

Licensee Signature: Kevin Webber — Signature — Oct 4, 2018 — Date Signed (mm/dd/yyyy)

Licensee Signature adopting the Site Plan content and assuming full liability for the implementation of prescriptions and appliance of the objectives contained to the area covered by the site plan.

SITE PLAN SUPPORTING INFORMATION

Block PF1

SITE PLAN PURPOSE

The purpose of the Site Plan is to identify the approximate location of roads and/or block boundaries for cutblocks. It is consistent with the Forest Stewardship Plan (FSP) (Approved August 21, 2017) and identifies how the intended *Results and/or Strategies* outlined in the FSP apply to the site. This attachment serves to support the Site Plan for the noted block.

SUPPORTING INFORMATION

1. TERRAIN/SOILS (FPPR Sections 34(1), 35 & 36)

PF1 has been engineered for a combination of ground-based and cable yarding. As per FPPR 35, soil disturbance is not to exceed 5% of the net area to be reforested (NAR) except in roadside work areas. As defined by Section 35(1) soil disturbance cannot exceed 25% in roadside work areas. This area is defined as one tree length from the edge of the road prism for the purposes of this site plan.

The operations manager shall follow the BCTS Rainfall Shutdown Guidelines for the 'Wet' Zone:
(https://www.for.gov.bc.ca/ftp/TCH/external/!publish/EMS2/Supplements/TCH-Wet-Weather-Shutdown-Guidelines.pdf)

Ground-based machinery should operate on mats and/or logging debris to minimize soil disturbance on wetter sites and operations should be curtailed during extremely wet conditions, as evidenced by standing or running water at the surface. Similarly, puncheon should be utilized throughout the block to minimize soil degradation, particularly in areas of thin soils over bedrock. Rainfall shutdown guidelines will be followed, and operations supervisors must exercise judgment and shut down operations when they observe excessively wet soil conditions, particularly during rain-on-snow events, even if the rainfall shutdown criteria have not been exceeded.

Statlu Environmental Consulting Ltd (Ryan Kremsater; Dated July 25, 2018) has completed a Terrain Stability Hazard Assessment (TSHA). Block PF1 has a 'LOW' terrain stability hazard for ground-based harvesting and no boundary adjustments are recommended. Large boulders with diameters up to 2 m are a worker safety hazard and need to be considered in the harvest plan. Refer to the Statlu report for more detailed information.

Prescriptions from the TSFA relating to road construction methods are included in the Road Site Plan. The TSFA is included in the Site Plan file

The maximum proportion of total area designated for permanent access does not exceed the allowable 7% (FPPR Section 36).

2. WILDLIFE (FPPR Section 7(2))

Wildlife Habitat Areas (WHA's) for Coastal Giant Salamander, Pacific Water Shrew, Tall Bugbane, and Spotted Owl have been established within the Ts'elxwéyeqw FDU; this development is not located within any of these WHA's.

PF1 is not located within 500m of an established Winter Range Habitat Area for Mountain Goat or Deer.

Bear Den:

A bear den was identified ~7m below PF1000 station B64. This feature should be retained; if it can't be left standing for safety reasons, high stump the feature at 3metres.

Species at Risk:

During fieldwork activities, no red or blue listed species (as identified in the Species and Ecosystem Explorer) were identified within this development. This block overlaps with CDC masked occurrence polygons (Checked October 4, 2018), and it has been confirmed by the CDC that the species in question is not located within or adjacent to this development.

In addition, no nests used by Birds of Prey were identified within or adjacent to the harvest area during fieldwork activities. If a nest is identified during road construction or harvesting activities, work will immediately cease and the TTML Forest Manager will be notified so that the nest site can be properly assessed

3. WATER AND FISH (FPPR Sections 12(3), 12.1(2), 47-51, 52(2) & 53)

Streams were classified by Dunham and Associates, based on stream gradient and width (Sec 47). This development is not located adjacent to a Wetland (Sec 48) or Lake (Sec 49). Roads constructed within the RMZ are required as part of a stream crossing (Sec 50). Trees will not be removed from an RRZ of a stream (Sec 51). As per Section 52(2) streams within the harvest area were assessed based on factors outlined in FPPR Schedule 1 Section 2, and it was determined that trees do not contribute significantly to the maintenance of Stream Channel or Bank Stability. There are no temperature sensitive streams located within/adjacent to this development (Sec 53).

Refer to the Road Site Plan for Terrain Hazard Assessments Recommendations regarding the stream crossing for PF1000.

There are no water licenses within the vicinity of this development.

See the Water and Fish section of the Site Plan document for specific prescriptions and harvesting recommendations associated with each feature

4. WATERSHEDS

This block is not located within a community watershed.

5. RECREATION

53150 – The Recreation Features include Vegetation Features – Regenerating Stand (E02), Mixed Coniferous/Deciduous Forest (E05), while Recreation Activities including 4-Wheel Driving (m03) and Snowmobiling (m05).

This development is not adjacent to any recreation trails.

6. VISUAL RESOURCE MANAGEMENT

This development is not located within a Visual Sensitivity Unit (VSU) Polygon with an established Visual Quality Objective (VQO). A visual impact assessment is not required.

7. CULTURAL HERITAGE

Block PF1 does not fall within any Traditional Use Polygons, and an Archeological Impact Assessment is not required for this development, as per engagement with the People of the River Referrals Office, completed June 18, 2018. No archaeological features or materials were identified within the harvest area during field activities, and no further archaeological work is recommended for PF1.

Should unanticipated cultural materials or features (including archaeological materials, culturally modified trees, or human remains) be encountered during timber harvesting and related activities, all work in the immediate area will cease and the Ts'elxwéyeqw Tribe, the Archaeology Branch and an appropriate archaeologist, as deemed by the Ts'elxwéyeqw Tribe or the TFLP, will be contacted.

8. RANGE

There is no range use in the vicinity of this block.

9. OTHER RESOURCES

Windthrow:

A windthrow assessment was completed by Cascadia Environmental Services (Sept 1, 2018). There is a 'Low Level' level of existing windthrow along the southwestern edge of PF1, which is adjacent to an existing cutblock (Blk 1) which is downwind of the anticipated dominant wind direction (southwesterly from Chilliwack Lake). Two boundary sections (FC2 – FC8/FC16 – FC18) have been assessed as having a 'High' windthrow risk, due to proximity to Gullied Terrain. These sections were inspected during Site Plan Fieldwork, and have been assessed to be windfirm, based on the gully wall features (40% Slopes), Stand Characteristics (Large Trees, multi-story canopy), and proximity to prevailing winds (southwesterly). No further action is required at this time. However, these sections should be monitored for windthrow-related damage during future silviculture surveys, and mitigation measures prescribed if there is a risk of debris torrents.

Karst:

No Karst features were identified within the development of this harvest block.

If any Karst features are discovered during harvest, all work in the area to have the features properly assessed for safety and significance.

10. FOREST HEALTH MANAGEMENT STRATEGIES

No large root rot pockets were identified within this development. Areas identified during falling operations should be mapped and planted with Western Red Cedar/Yellow Cedar

A moderate level of Hemlock Dwarf mistletoe was observed within this development. Any Western Hemlock regeneration tallied during future silviculture surveys should not be classified as preferred/acceptable, if located within 15m of a standing Hemlock with visible mistletoe infection.

Ts'elxwéyeqw TRIBE

REFORESTATION PRESCRIPTION
Block PF1

ECOLOGICAL CLASSIFICATION AND AREA SUMMARY (FPPR Section 34(1)(a))

Area Classification								Area Summary (ha)					
SU	Standards ID	BGZ	E.A.	Moist	Nutr	Silv. System	Harv. System	TAUP	PAS	NP NAT	WTP	Ret. Patch	NAR
1	1010005	MHmm2	05/01/ (07)	4	D	Clearcut with reserves	Ground/Cable	16.6	1.0		2.6	0.4	12.6
							Area Totals	16.6	1.0	--	2.6	0.4	12.6

SITE PREPERATION TREATMENTS

SU	Preferred Treatment			Alternate Treatment		
SU	TECHNIQUE	METHOD	PLANNED OFFSET	TECHNIQUE	METHOD	PLANNED OFFSET
1	-	-	-	-	-	-

PREFERRED SITE PREP TREATMENT COMMENTS:
No site preparation treatment is anticipated to be required.

ALTERNATE SITE PREP TREATMENT COMMENTS:
No site preparation treatment is anticipated to be required.

STOCKING STANDARDS (FRPA 29(1) and FPPR 34(1)(b))

FREE GROWING STOCKING REQUIREMENTS

SU	NET AREA TO BE REFORESTED (ha)	REGEN DELAY (yrs)	LATE FREE GROWING (yrs)	MAX CONIFEROUS (st/ha)	POST SPACING DENSITY (st/ha)	
					MIN	MAX
1	12.6	7	20	10,000	900	1500

PREFERRED/ACCEPTABLE SPECIES

SU	PREFERRED SPECIES/MINIMUM HEIGHT (m)	ACCEPTABLE SPECIES/MINIMUM HEIGHT (m)
1	Ba/0.6 Se/1.00 Hm/1.00	Hw/1.00 Cw/1.00 Bl/1.00 Yc/1.00

WELL SPACED TREES/ha

SU	WELL SPACED TREES/ha				HEIGHT RELATIVE TO COMP (% OR cm)
	TARGET	MINIMUM	MIN PREF	MIN HORIZ DISTANCE (m)	
1	900	500	400	2.0	125% (100% for Fireweed)

RATIONALE FOR CHOICE OF STOCKING STANDARDS (Based on resource objectives and site assessment.):
The stocking standard for Block PF1 was selected as per the Approved FSP Stocking Standards (August 21, 2017), the dominant ecological site classification, the pre-harvest tree species composition, and the elevation ranges at which the opening occurs.

REGENERATION METHOD(S)

	Preferred Method			Alternate Method		
SU	TECHNIQUE	METHOD	PLANNED OFFSET	TECHNIQUE	METHOD	PLANNED OFFSET
1	Natural Regeneration	Container	1-2	Fill plant	Container	4-5 YRS

COMMENTS:
SU 1 – This development has been prescribed for Natural Regeneration, based on the pre-harvest stand of Mountain Hemlock and Amabillis Fir. Complete initial regen survey after 3 years and fill plant as necessary.

COMMENTS:
Fill plant as indicated by stocking surveys.

SEEDLING REQUIREMENTS – N/A at this time

SU	SPECIES	STOCK			AMOUNT (K)	SEEDLOT NUMBER	SOW (HVST +/-)	PLANT (HVST +)	PLANT SEASON
		AGE	TYPE	CTNR					
1	--	--	--	--	--	--	--	--	--

Elevation of NAR: 300 - 500m

BRUSHING

	PREFERRED METHOD			ALTERNATE METHOD		
SU	TECHNIQUE	METHOD	PLANNED OFFSET	TECHNIQUE	METHOD	PLANNED OFFSET
1	**Chemical or Manual**	**Backpack or Brushsaw**	**3-5 YRS**	**Chemical**	**Backpack**	**3-5 YRS**

COMMENTS:
SU 1 (MHmm2)(05): M(Site Index Class = IV = <12)
Moderate Competing Vegetation Severity Rating.
The Competing Vegetation Severity Rating and Vegetation Complex were determined to be 'Moderate' & '6' based on the biogeoclimatic subzone and site series. Based on observations of existing stand Block 1 it is expected that competing vegetation will include alder, mountain ash and to a lesser extent false azalea and blueberry. Based on observations made of existing cutblocks in the area, the brush hazard is expected to be 'Moderate' for this development. If deemed to be required, a chemical application using a backpack or a manual brushing treatment is recommended.

If brush competition is identified during stocking/brushing surveys, appropriate measures will be taken to ensure stands will reach free growing status within prescribed time frame windows.

COMMENTS:
Same as preferred option.

FOREST HEALTH

Preferred Method

COMMENTS:
No large root rot pockets were identified within this development, as Douglas-fir does not make up a significant component of the pre-harvest stand. Areas identified during falling operations should be mapped and planted with 100% Western Red Cedar and/or Yellow Cedar.

Alternate Method

COMMENTS:
Fill plant as indicated by stocking surveys.

SU	TECHNIQUE	METHOD	PLANNED OFFSET	TECHNIQUE	METHOD	PLANNED OFFSET
1	Plant	Container	1-2	Fill Plant	Container	4-5 YRS

PRE-HARVEST STAND DESCRIPTION AND GENERAL BLOCK COMMENTS

Pre-Harvest Stand Composition: Hm-55% Ba-27% Hw –11% Yc – 5% Cw-2%

The well-developed understory vegetation that was observed within pre-harvest stand was composed of dull Alaskan Blueberry, false azalea, Red Huckleberry, Foam Flower, Oak Fern, and Bunchberry. Pipe cleaner moss and lanky moss make up the moss layer. The pre-harvest stand volume as determined by the timber cruise is approximately 643m^3/ha.

Planting:

This development has been prescribed for Natural Regeneration, based on the pre-harvest stand of Mountain Hemlock and Amabillis Fir. Complete initial regen survey after 3 years and fill plant as necessary.

Brush:

Brush is expected to be a concern for the future regenerating stand, based primarily on observations and ecological site classification. If deemed necessary, a brushing treatment will be carried out as required ensuring tree survival and vigour. See the 'Brushing' section above for details.

Soils:

Soils are moderately deep (30cm to 50cm) with minor colluvium present throughout the opening. The soil texture was determined to be SL, while the coarse fragment content was found to be approximately 15%.