



BCTS

BC Timber Sales

Chinook

SITE PLAN

CHINOOK

BC TIMBER SALES

Report Date 2016/03/15

TENURE IDENTIFICATION

ORIGINAL

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
A93566	-	SKI537	BB3YM		A	Skidegate Lake	53 07 26 / 131 52 56

AREA UNDER THE PLAN

GROSS AREA (TAUP)	PAS	NP	WTRA / WTP	RESERVES	OTHER	NAR
35.1	1.3	0.0	16.1	0.1	0.0	17.6

ADDITIONAL COMMENTS

OTHER RESOURCES
<p>The long-term management objective for this opening is to be consistent with the results and strategies outlined in the approved BCTS Forest Stewardship Plan for the Haida Gwaii Forest District (last amended November 18, 2011) as well as the Haida Gwaii Land Use Objectives Order (Dated December 16, 2010) (LUO).</p> <p>Standard Unit 1 is 17.6ha NAR and is characteristic of the young/mature O1 site series within the CWHwh1 biogeoclimatic subzone. The preharvest stand is dominated by second growth Sitka spruce and Western hemlock. The understory vegetation is sparse and features mostly Vaccinium and Salal. The herbaceous cover is sparse with mosses being the dominant cover. The overall site is located on moderate to well drained soils on moderately slopping terrain.</p> <p>The topography is characterized with slopes ranging between 0-40%, and the average elevation is ~170m.</p> <p>Note that there are minor differences between the CWHwh1 as described in the LMH#28 and the LMH#68. No stocking standards have been developed as of yet to address the change between these Ecosystem Classification Field Guides. Therefore, site series and stocking standards developed for the CWHwh1 - LMH#28 will be used in the development of this site plan.</p>

SOIL DISTURBANCE

SU	Max. Allowable Soil Disturbance (%)	Max. Amount TAS May Exceed MASD Prior To Rehab (%)	Max. Allowable Soil Disturbance For Roadside Work Areas (%)	Maximum Permanent Access Structures (%)
1	5.0		25.0	7.0
SU	CRITICAL SITE CONDITIONS THAT AFFECT THE TIMING OF OPERATIONS, AND HOW THEY AFFECT THE TIMING			
1	<p>Expect soils located on receiving sites to become saturated during prolonged periods of rainfall. Ground based harvesting throughout the block will avoid saturated conditions that cause excessive rutting or compaction. If rubber tired skidders are used, they must use designated trails to reduce excessive soil compaction. If rutting and/or displacement of the forest floor occurs, machine operations will stop immediately until a suitable strategy (i.e the use of matting or puncheon) is applied or until conditions improve.</p> <p>The BCTS Wet Weather Safety Shutdown Guidelines for the Chinook Business Area will apply to this block. All operations should cease immediately if the operational limits for rainfall is exceeded.</p>			

RESULTS AND STRATEGIES

Annual Reporting and Data Submission	
Result or Strategy Description	Where applicable features prescribed under the LUO are identified (refer to Table 10, attached), and associated no-harvest zone (including cedar reserves), management zones and stand level retention are established or managed by a Plan Holder, the feature(s) and associated no-harvest zones, management zones and stand level retention will be documented and the digital spatial data will be submitted by said Plan Holder by December 31st of each year to the Council of the Haida Nation and to the Province of BC.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>In order to adequately manage and conserve cultural resource values and features, a Cultural Feature Identification (CFI) survey was completed by accredited surveyor Nick Reinhardt, RPF on January 6th, 2016.</p> <p>Only Class 3 Haida Traditional Forest Features were identified in the CFI survey. These included but are not limited to: Skunk Cabbage, Snake Liverwort, Licorice Fern, and Sword Fern.</p> <p>Baxter Creek is classified Type I fish habitat and is situated west of the block.</p> <p>Stream B is classified Type I and II fish habitat and is situated east of the block.</p> <p>Stream C is classified Type I and II fish habitat and is situated north of the block.</p> <p>This block is 35.1ha TAUP, and due to the low cedar composition, the block retention requirement and cedar regeneration commitment as described in Section 7 of the LUO will be not be required.</p> <p>No other applicable features prescribed under the LUO, as per this specific Result and Strategy (Table 10) were identified within or adjacent to the proposed harvest opening.</p> <p>All reserve and management zones will be reported to the CHN at the time of TSL submission.</p>

Aquatic Habitats	
Result or Strategy Description	In upland stream areas, where stream channels are incised, have steep gradients and support riparian plant communities that are dependent on high-humidity microclimates, sufficient trees and vegetation will be retained to maintain said riparian plant community.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>A 300m+ section of Stream A is within Block SKI537. Approximately 80m of this channel forms an incised gully. A gully assessment was made by using the Gully Assessment Procedure Guide. Indications are that the Headwall failure potential is Low, the sidewall failure potential is Low, and the Debris Flow initiation hazard is low. The harvesting management strategy is to clearcut and leave non merchantable vegetation where safe and operationally feasible. It is anticipated that trees within and adjacent to the gully will need to be directionally hand felled for safety purposes. After harvesting is completed, remove all CWD >15cm dbh and material that could alter stream morphology or flow.</p> <p>A Machine Free Zone (MFZ) has been hung 5m off the stream, along both sides of the stream bank. Where a machine cannot reach timber located within the MFZ, it should be hand felled. A designated crossing has been mapped and marked in the field to help retain overall channel and stream bank stability. Where possible, retain non-merchantable timber within the MFZ.</p>
Result or Strategy Description	Prior to development activities within a sensitive watershed, the applicable Plan Holders will form an agreement that documents: a) who is responsible for completing the watershed analysis and any updates that may be required; and b) how the rates of harvesting will be allocated, consistent with Section 6.30; and c) who is responsible for tracking the rates of harvest within the sensitive watershed.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>In order to demonstrate compliance with Section 14 of the Haida Gwaii Land Use Objectives Order (Section 6.30, FSP), a watershed analysis is required to show that greater than 80% of the applicable watershed unit is maintained. This analysis has occurred (Miranda Hawryluk - CCL; January, 2016).</p> <p>The planned harvest area in the Baxter Creek Sensitive Watershed is 100.3ha (SKI506-10.5ha, SKI510-5.4ha, SKI521-3.1ha, SKI22-12.2ha, SKI535-12.9ha, SKI563-22.5ha, SKI537-18.9, and SKIA450 14.8ha). The total area of this watershed is 2,222.5ha, of which, 1,999.1ha is hydrologically recovered. This means that the maximum amount of harvestable area in this watershed is 218.9ha (20% of the total area minus the previous unrecovered area).</p> <p>The expected hydrologically recovered area within this watershed following harvest of this block is equal to 85.4% (1999.1ha - 100.3ha/2222.5ha) and is greater than the 80% minimum allowed for sensitive watershed areas, as per Section 14 of the LUO and is therefore consistent with Section 6.30 of the FSP.</p> <p>However, in compliance with Section 14 (6.30 FSP) of HGLUOO, a watershed >500ha may only be harvested at a rate of 5% of the total watershed area over a 5 year period. Therefore, the current 5 year period allows for a rate of 111.8ha, bringing the total area remaining for this period is to 11.5ha (111.8ha - 100.3ha).</p> <p>Rates of harvest will be reported in the FSP Group Ledger.</p>
Result or Strategy Description	Prior to development activities within a watershed sub-unit, the applicable Plan Holders will form an agreement that documents: a) who is responsible for completing the watershed analysis and any updates that may be required; and b) how the rates of harvesting will be allocated, consistent with the watershed sub-unit analysis; and c) who is responsible for tracking the rates of harvest within the watershed sub-unit.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>In order to demonstrate compliance with Section 13 of the Haida Gwaii Land Use Objectives Order, a watershed analysis is required to show that greater than 70% of the applicable Upland Stream Area is recovered. This analysis has occurred (Miranda Hawryluk - CCL; December, 2016).</p> <p>The planned harvest area in watershed sub-unit #397 is 48.1ha (SKI506-1.7ha, SKI510-5.4ha, SKI535-7.3ha, SKI537-18.9ha and SKIA450-14.8ha). The total upland stream area of this sub-unit is 507.0 ha, of which, 439.8 ha is hydrologically recovered. This means that the maximum amount of harvestable area in this sub-unit is 84.9ha (30% of the total upland stream area minus the previous unrecovered area).</p> <p>The expected hydrologically recovered area within this sub-unit following harvest of this block is equal to 77.3% (439.8ha - 48.1ha)/507.0ha and is greater than the 70% minimum allowed for upland stream areas, as per Section 13(1) of the LUO.</p> <p>Proportionate to other licensees in the area, BCTS will have -11.6 ha of available harvest area after accounting for the 48.1 ha planned for all proposed blocks. The additional 11.6 ha will come out of the other plan holders apportionment.</p> <p>Rates of harvest will be reported in the FSP Group Ledger.</p>
Result or Strategy Description	Where upland streams are direct tributaries to Type I or II fish habitat, sufficient vegetation, which may include trees, will be retained to maintain stream bank and channel stability, as determined by a qualified professional.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>Stream A is an upland stream that begins on the eastern block edge the and flows west towards and into Baxter Creek.</p> <p>A Machine Free Zone (MFZ) has been hung 5m off the stream, along both sides of the stream bank. Where a machine cannot reach timber located within the MFZ, it should be hand felled. A designated crossing has been mapped and marked in the field to help retain overall channel and stream bank stability. Where possible, retain non-merchantable timber within the MFZ.</p>
Result or Strategy Description	With reference to individual development areas, where naturally occurring AFUs occur, any forest located within in the AFU will be retained and a 1.5 tree-length (minimum width) management zone, measured from the outer edge of the AFU, will be established to protect the AFU.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There is no AFU located within or immediately adjacent to the proposed harvest area.

Result or Strategy Description	<p>With reference to individual development areas, where Type I fish habitat occurs,it will be retained and a 2.0 tree-length (minimum width) riparian no-harvest zone, measured from the outer edge of the Type I habitat, will be maintained to protect the Type I fish habitat, subject to all of the following:</p> <p>a) Where necessary to address site specific values, the Type I no-harvest zone identified under Section 6.17 above, may be increased or decreased by up to 0.5 tree-lengths, measured from the outer edge of the no-harvest zone, provided that there is no net loss of Type I no-harvest zone area within the development area.</p> <p>b) Within an individual development area, up to 5% of the total area of the Type I habitat no-harvest zone may be altered or removed, provided that:</p> <p>i) the integrity of the Type I fish habitat is maintained; and</p> <p>ii) the alteration or removal is required for road or bridge construction, or to address a safety concern and no practicable alternative exists; or</p> <p>iii) the alteration or removal may be for a purpose other than those listed in Sub-section ii) above, provided the reasons are consistent with the outcome of a completed intergovernmental process.</p>
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>Baxter Creek is classified Type I fish habitat, as per Section 10 of the LUO. The no-harvest zone is maintained for both features in excess of the required 2.0 tree length (80.0m) established under Section 10(3) of the LUO.</p> <p>Streams C & B are classified Type I and II fish habiat, as per Section 10 of the LUO. The no harvest zone maintained for the Type I habitat is in excess of the required 2.0 tree length (80.0m) established under Section10(3) of the LUO. The no harvest zone maintained for the Type II habitat is 1.0 tree lengths (40.0m) with an additional 0.5 tree length management zone (20.0m) established under Section 10 (3)(5) of the LUO.</p> <p>Tree heights were selected using the dominant site series of the block (CWHwh1 - 01 - young/mature stand) and the tree-heights established in Schedule 5 of the LUO.</p> <p>Road SPUR 30C-1 intersects with Stream C. The planned disturbance to the no-harvest zone due to road construction over Type I fish habitat is 0.78 ha. A total of 15.66ha of the no-harvest zone of Type I fish habitat has been retained within WTRA to offset this disturbance and maintain the integrity of the no-harvest zone. Therefore, 4.6% (0.78ha/(0.78ha + 15.66ha)) of the no-harvest zone within the development area will be altered. This complies with LUO Section 10(5).</p>
Result or Strategy Description	<p>With reference to individual development areas, whereType II fish habitat occurs, it will be retained and a 1.0 tree-length (minimum width) riparian no-harvest zone, measured from the outer edge of the Type II habitat, will be maintained to protect the Type II fish habitat. Adjacent the no-harvest zone a 0.5 tree- length (average width) management zone will be established to protect the no-harvest zone, subject to all of the following:</p> <p>a) Within an individual development area, up to 5% of the total area of the Type II habitat no-harvest zone may be altered or removed, provided that the integrity of the Type II fish habitat is maintained.</p> <p>b) Within an individual development area, the total area of the Type II habitat management zone may be reduced by up to 20%, measured in hectares.</p> <p>c) The retention of trees within the management zone will be based on consideration of the likelihood of damages to the no-harvest zone caused by windthrow.</p>
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>Streams B&C are classified Type I and II fish habitat, as per Section 10 of the LUO. The no harvest zone maintained for the Type I habitat is in excess of the required 2.0 tree length (80.0m) established under Section10(3) of the LUO. The no harvest zone maintained for the Type II habitat is 1.0 tree lengths (40.0m) with an additional 0.5 tree length management zone (20.0m) established under Section 10 (3)(5) of the LUO.</p> <p>There are no plans to reduce the Type II no-harvest zone or the management zone.</p>
Result or Strategy Description	<p>Within each sensitive watershed indicated on LUO Schedule 7, and where development areas are proposed by a Plan Holder, harvest rates will be consistent with the following:</p> <p>a) For watersheds >= 500ha, up to 5% of the watershed area may be harvested in a 5-year period.</p> <p>b) For watersheds < 500ha, up to 10% of the watershed area may be harvested in a 10-year period.</p> <p>c) Despite Sub-sections a) and b) above, no harvesting will occur in sensitive watersheds with an ECA >= 20%</p> <p>d) Harvest rates and ECAs will be based on the watershed analysis required under Section 6.29, above.</p>
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>In order to demonstrate compliance with Section 14 of the Haida Gwaii Land Use Objectives Order (Section 6.30, FSP), a watershed analysis is required to show that greater than 80% of the applicable watershed unit is maintained. This analysis has occurred (Miranda Hawryluk - CCL; January, 2016).</p> <p>The planned harvest area in the Baxter Creek Sensitive Watershed is 100.3ha (SKI506-10.5ha, SKI510-5.4ha, SKI521-3.1ha, SKI22-12.2ha, SKI535-12.9ha, SKI563-22.5ha, SKI537-18.9, and SKIA450 14.8ha). The total area of this watershed is 2,222.5ha, of which, 1,999.1ha is hydrologically recovered. This means that the maximum amount of harvestable area in this watershed is 218.9ha (20% of the total area minus the previous unrecovered area).</p> <p>The expected hydrologically recovered area within this watershed following harvest of this block is equal to 85.4% (1999.1ha - 100.3ha/2222.5ha) and is greater than the 80% minimum allowed for sensitive watershed areas, as per Section 14 of the LUO and is therefore consistent with Section 6.30 of the FSP.</p> <p>However, in compliance with Section 14 (6.30 FSP) of HGLUOO, a watershed >500ha may only be harvested at a rate of 5% of the total watershed area over a 5 year period. Therefore, the current 5 year period allows for a rate of 111.8ha, bringing the total area remaining for this period is to 11.5ha (111.8ha - 100.3ha).</p> <p>Rates of harvest will be reported in the FSP Group Ledger.</p>

Result or Strategy Description	<p>Within each sensitive watershed indicated on LUO Schedule 7, and where development areas are proposed by a Plan Holder, the Plan Holders will do the following:</p> <p>a) A watershed analysis will be completed by a qualified person that indicates the watershed ECA condition.</p> <p>b) The Plan Holders will maintain, on an ongoing basis, a group ledger which tracks the development activities within the sensitive watersheds.</p>
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>In order to demonstrate compliance with Section 14 of the Haida Gwaii Land Use Objectives Order (Section 6.30, FSP), a watershed analysis is required to show that greater than 80% of the applicable watershed unit is maintained. This analysis has occurred (Miranda Hawryluk - CCL; January, 2016).</p> <p>The planned harvest area in the Baxter Creek Sensitive Watershed is 100.3ha (SKI506-10.5ha, SKI510-5.4ha, SKI521-3.1ha, SKI22-12.2ha, SKI535-12.9ha, SKI563-22.5ha, SKI537-18.9, and SKIA450 14.8ha). The total area of this watershed is 2,222.5ha, of which, 1,999.1ha is hydrologically recovered. This means that the maximum amount of harvestable area in this watershed is 218.9ha (20% of the total area minus the previous unrecovered area).</p> <p>The expected hydrologically recovered area within this watershed following harvest of this block is equal to 85.4% (1999.1ha - 100.3ha/2222.5ha) and is greater than the 80% minimum allowed for sensitive watershed areas, as per Section 14 of the LUO and is therefore consistent with Section 6.30 of the FSP.</p> <p>However, in compliance with Section 14 (6.30 FSP) of HGLUOO, a watershed >500ha may only be harvested at a rate of 5% of the total watershed area over a 5 year period. Therefore, the current 5 year period allows for a rate of 111.8ha, bringing the total area remaining for this period is to 11.5ha (111.8ha - 100.3ha).</p> <p>Rates of harvest will be reported in the FSP Group Ledger.</p>
Result or Strategy Description	<p>Within each watershed sub-unit indicated on LUO Schedule 6, and where development areas are proposed by a Plan Holder, the Plan Holders will do the following, subject to Section 6.24, below:</p> <p>a) a watershed analysis will be completed by a qualified person that indicates the watershed condition and the upland stream area; and</p> <p>b) Plan Holders will ensure that rates of harvesting within a watershed sub-unit are consistent with the watershed analysis results and that >70% of the forest, measured in hectares, in the upland stream area is hydrologically recovered; and</p> <p>c) the Plan Holders will maintain a group ledger, updated annually at a minimum, that tracks the development activities within watershed sub-units.</p>
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>In order to demonstrate compliance with Section 13 of the Haida Gwaii Land Use Objectives Order, a watershed analysis is required to show that greater than 70% of the applicable Upland Stream Area is recovered. This analysis has occurred (Miranda Hawryluk - CCL; December, 2016).</p> <p>The planned harvest area in watershed sub-unit #397 is 48.1ha (SKI506-1.7ha, SKI510-5.4ha, SKI535-7.3ha, SKI537-18.9ha and SKIA450-14.8ha). The total upland stream area of this sub-unit is 507.0 ha, of which, 439.8 ha is hydrologically recovered. This means that the maximum amount of harvestable area in this sub-unit is 84.9ha (30% of the total upland stream area minus the previous unrecovered area).</p> <p>The expected hydrologically recovered area within this sub-unit following harvest of this block is equal to 77.3% (439.8ha - 48.1ha)/507.0ha and is greater than the 70% minimum allowed for upland stream areas, as per Section 13(1) of the LUO.</p> <p>Proportionate to other licensees in the area, BCTS will have -11.6 ha of available harvest area after accounting for the 48.1 ha planned for all proposed blocks. The additional 11.6 ha will come out of the other plan holders apportionment.</p> <p>Rates of harvest will be reported in the FSP Group Ledger.</p>
Result or Strategy Description	<p>Despite Section 6.18 above, the combined area of the Type II habitat no-harvest and management zones may be further reduced, provided:</p> <p>a) the reduced area is consistent with the outcome of a completed intergovernmental process; and</p> <p>b) the total amount of mature and old forest in the Type II habitat no-harvest and management zones within the development area is reduced by <= 20%, measured in hectares; and</p> <p>c) the integrity of the Type II habitat is maintained; and</p> <p>d) an adaptive management plan is developed, documented and implemented prior to reducing the size of the Type II reserve and management zones under Section 6.19.</p>
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no Type II stream non-harvest/ management zones being altered within the development area; therefore, the result or strategy does not apply.
Result or Strategy Description	Despite Section 6.20 above, within an individual development unit, the amount of mature and old forest within the AFU management zone(s) may be reduced by up to 10%, measured in hectares.
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There is no AFU located within or adjacent to this block; therefore, the result or strategy does not apply.
Result or Strategy Description	<p>Despite Section 6.23, <70% of the forest, measured in hectares, in the upland stream area maybe retained, provided that the Plan Holders ensure the following, subject to Section 6.26, below:</p> <p>a) the revised upland stream area retention percentage is consistent with the outcome of a completed intergovernmental process; and</p> <p>b) a watershed assessment is completed by a qualified professional that indicates the watershed sub- unit sensitivity to forest development and disturbance; and the amount, type and distribution of forest cover that is required to sustain natural hydrological and fluvial process; and</p> <p>c) the rates of harvesting within a watershed sub-unit are consistent with the watershed assessment results provided in Sub-section 6.25b); and</p> <p>d) an adaptive management plan is developed, documented and implemented prior to reducing the upland stream area retention percentage below 70%, measured in hectares.</p>
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There is no plan to reduce the hydrologically recovered upland stream area in watershed Sub-Unit #397 below the 70% threshold as per Section 13(1) of the LUO; therefore, the result or strategy does not apply.

Result or Strategy Description	<p>Despite Section 6.30 above, for a given sensitive watershed, Plan Holders may maintain a rate of harvest and/ or an ECA that exceeds the thresholds indicated, provided the Plan Holder ensure the following:</p> <p>a) the revised rate of harvest and/ or ECA threshold is consistent with the outcome of a completed intergovernmental process; and</p> <p>b) a watershed sensitivity assessment is completed by a qualified professional that indicates the watershed sensitivity to past, current and proposed forest development and disturbance; and the amount, type and distribution of forest cover that is required to sustain natural hydrological and fluvial process; and</p> <p>c) the rates of harvesting within a watershed sub-unit are consistent with the watershed assessment results provided in Sub-section b), above; and</p> <p>d) an adaptive management plan is developed, documented and implemented prior to increasing the rate of harvest and/ or ECA for the watershed.</p>
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no plans to increase the rate of harvest or the ECA beyond the current thresholds; therefore, the result or strategy does not apply.
Result or Strategy Description	<p>In addition to Section 6.21 above, within an individual development unit, the amount of mature and old forest within the AFU management zone(s) may be reduced by an additional 10%, measured in hectares, provided that:</p> <p>a) sufficient functional riparian forest is retained to protect the integrity of the AFU; and</p> <p>b) an adaptive management plan is developed, documented and implemented prior to reducing the size of the AFU management zone(s) under Section 6.22 above.</p>
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There is no AFU located within or adjacent to this block; therefore, the result or strategy does not apply.
Result or Strategy Description	<p>Where Plan Holders are proposing to increase the rate of harvest and/or the ECA, within a given sensitive watershed, prior to undertaking the steps required under Section 6.32 above, the applicable Plan Holders will form an agreement that documents:</p> <p>a) who is responsible to complete the process outlined in Sub-sections 6.32a) through 6.32d) above; and</p> <p>b) how the rates of harvesting will be allocated, consistent with the assessment; and</p> <p>c) who is responsible for tracking the rates of harvest within the watershed.</p>
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no plans to increase the rate of harvest or the ECA beyond the current thresholds; therefore, the result or strategy does not apply.
Result or Strategy Description	<p>Where Plan Holders are proposing to reduce the upland stream retention within a watershed sub-unit, prior to reducing the upland stream area below 70%, measured in hectares, the applicable Plan Holders will form an agreement that documents:</p> <p>a) who is responsible to complete the process outlined in Sub-sections 6.25a) through 6.25d) above; and</p> <p>b) how the rates of harvesting will be allocated, consistent with the assessment; and</p> <p>c) who is responsible for tracking the rates of harvest within the watershed sub-unit.</p>
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There is no plan to reduce the hydrologically recovered upland stream area in watershed Sub-Unit #397 below the 70% threshold as per Section 13(1) of the LUO; therefore, the result or strategy does not apply.
Biodiversity Objectives	
Result or Strategy Description	Where development activities are proposed within a forest area that is classified as a rare or common site-series, consistent with LUO Schedule 10, Plan Holders will retain an amount (measured in hectares) of old forest greater than or equal to the applicable target listed for said site-series in Schedule 10, consistent with Section 6.37 above.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>This block is located within the Skidegate Lake Landscape Unit and the CWHwh1 (01) biogeoclimatic subzone and site series. The Old Forest Target for stands within this Landscape unit is 3147.0 ha as outlined in Schedule 10 of the Haida Gwaii Land Use Objectives Order. The analysis recently completed by Zimmfor Management Services Ltd. indicates that 2,432ha of Old Forest currently exists within reserve. A total of 715ha is required to meet the target set in the LUO. Within the TSA, there is 130ha of Old forests that exists outside reserves.</p> <p>Within the TSA, 130ha of CWHwh1(01) Old Forests exists. A total of 36ha of Old Forests within the TSA is required to be retained to meet LUO targets. BCTS's proportional share of this deficit is 15.48ha. This deficit has been retained within the WTRA associated with TSL A93565.</p> <p>Block SKI537 is characterized by 2nd growth timber, and the harvesting of these areas will not impact the amount of existing Old Forest within the Skidegate Landscape Unit and the CWHwh1 (01) biogeoclimatic subzone and site series. Additionally, no Old Forests exist adjacent to the block that would contribute to meeting the LUO targets. However, the 16.1ha WTRA established adjacent to this block encompasses 2nd growth forest that may contribute to the LUO targets in the long term.</p> <p>Retained area's contributing to Eco Rep will be reported in the group ledger.</p>
Result or Strategy Description	<p>Where practicable,old forest areas that are retained consistent with Section 6.37 above,will include habitat for local species at risk and regionally important wildlife, including, but not limited to:</p> <p>a) Northern Goshawk nesting and foraging habitat; and</p> <p>b) Marbled Murrelet nesting habitat, Great Blue heron nesting habitat, and Northern Saw-whet Owl core nesting areas; and</p> <p>c) Black Bear dens and denning habitat.</p>
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The 16.1ha of WTRA established for this block, while not considered 'old forest', may include future habitat for local species at risk and/or regionally important wildlife.

Result or Strategy Description	<p>Where there is insufficient old forest available to meet the requirements under Section 6.38 above, Plan Holders will identify, retain and recruit old forest stands where necessary, through natural processes (passive) and may implement voluntary interventions (active), to meet the representation requirements in the shortest possible timeframe. In order to meet the objective in the shortest possible timeframe, older stands will be chosen before younger stands when identifying recruitment areas.</p> <p>Strategies that will be used to identify, retain and recruit old forest stands include:</p> <p>a) Identifying mature stands (of the appropriate site-series) in the LU that are already constrained for other reasons, and designating them as reserves set aside to meet the ecological representation requirements.</p> <p>b) Where there are not enough mature stands (of the appropriate site-series) in the LU that are already constrained for other reasons, unconstrained stands will be identified and designated as reserves set aside to meet the ecological representation requirements.</p> <p>Where mature stands have been designated as reserves set aside to meet the ecological representation requirements, voluntary management intervention strategies to be used to help recruit old forest stands in the earliest possible timeframe include:</p> <p>i) Fertilization treatments, to help accelerate rates of growth and promote old-growth characteristics.</p> <p>ii) Stand thinning or stand modification treatments to help accelerate rates of growth and promote old-growth characteristics.</p>
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>This block is located within the Skidegate Lake Landscape Unit and the CWHwh1 (01) biogeoclimatic subzone and site series. The Old Forest Target for stands within this Landscape unit is 3147.0 ha as outlined in Schedule 10 of the Haida Gwaii Land Use Objectives Order. The analysis recently completed by Zimmfor Management Services Ltd. indicates that 2,432ha of Old Forest currently exists within reserve. A total of 715ha is required to meet the target set in the LUO. Within the TSA, there is 130ha of Old forests that exists outside reserves.</p> <p>Within the TSA, 130ha of CWHwh1(01) Old Forests exists. A total of 36ha of Old Forests within the TSA is required to be retained to meet LUO targets. BCTS's proportional share of this deficit is 15.48ha. This deficit has been retained within the WTRA associated with TSL A93565.</p> <p>Block SKI537 is characterized by 2nd growth timber, and the harvesting of these areas will not impact the amount of existing Old Forest within the Skidegate Landscape Unit and the CWHwh1 (01) biogeoclimatic subzone and site series. Additionally, no Old Forests exist adjacent to the block that would contribute to meeting the LUO targets. However, the 16.1ha WTRA established adjacent to this block encompasses 2nd growth forest that may contribute to the LUO targets in the long term.</p> <p>Retained area's contributing to Eco Rep will be reported in the group ledger.</p>
Result or Strategy Description	With reference to individual development areas, where red or blue-listed ecological communities >= 0.25ha occur, they will be retained.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	No red or blue listed ecological communities were found within or immediately adjacent to the proposed harvest area of this block.
Result or Strategy Description	<p>Within each Landscape Unit indicated in LUO Schedule10, and where development areas are proposed by a Plan Holder, prior to development activities the Plan Holders will do the following:</p> <p>a) An ecological representation analysis will be completed by a qualified person that indicates the current inventory of old forest by site series and LU.</p> <p>b) For each LU, the applicable Plan Holders will form an agreement that documents:</p> <p>i) who is responsible for completing the ecological representation analysis; and</p> <p>ii) how the required old forest retention will be allocated; and</p> <p>iii) how any required old forest recruitment, consistent with Section 6.40 below, will be allocated; and</p> <p>iv) who is responsible for tracking the old forest retention.</p> <p>c) The Plan Holders will maintain a group ledger, updated annually at a minimum, which tracks the depletions and additions to the old forest inventory by site series and LU.</p>
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>This block is located within the Skidegate Lake Landscape Unit and the CWHwh1 (01) biogeoclimatic subzone and site series. The Old Forest Target for stands within this Landscape unit is 3147.0 ha as outlined in Schedule 10 of the Haida Gwaii Land Use Objectives Order. The analysis recently completed by Zimmfor Management Services Ltd. indicates that 2,432ha of Old Forest currently exists within reserve. A total of 715ha is required to meet the target set in the LUO. Within the TSA, there is 130ha of Old forests that exists outside reserves.</p> <p>Within the TSA, 130ha of CWHwh1(01) Old Forests exists. A total of 36ha of Old Forests within the TSA is required to be retained to meet LUO targets. BCTS's proportional share of this deficit is 15.48ha. This deficit has been retained within the WTRA associated with TSL A93565.</p> <p>Block SKI537 is characterized by 2nd growth timber, and the harvesting of these areas will not impact the amount of existing Old Forest within the Skidegate Landscape Unit and the CWHwh1 (01) biogeoclimatic subzone and site series. Additionally, no Old Forests exist adjacent to the block that would contribute to meeting the LUO targets. However, the 16.1ha WTRA established adjacent to this block encompasses 2nd growth forest that may contribute to the LUO targets in the long term.</p> <p>Retained area's contributing to Eco Rep will be reported in the group ledger.</p>
Result or Strategy Description	<p>Despite Section 6.35 above, the amount of mature or old forest retained in the management zone may be reduced to 60%, measured in hectares, provided that:</p> <p>a) the amount of mature and old forest retained is sufficient to maintain the integrity of the forested swamp; and</p> <p>b) an adaptive management plan is developed, documented and implemented prior to reducing the percentage of mature and old forest below 70%, measured in hectares.</p>
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no forested swamps within or adjacent to this block; therefore, the result or strategy does not apply.
Result or Strategy Description	<p>Despite Section 6.41above, up to 30% of the area of each blue-listed ecological community occurring in a development area may be altered or harvested if:</p> <p>a) the harvesting is required for road access or to address a safety concern; or</p> <p>b) the harvesting is required for another reason than specified in Sub-section a) above, provided that the harvesting is consistent with the outcome of a completed intergovernmental process.</p>
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	No red or blue listed ecological communities were found within or immediately adjacent to the proposed harvest area of this block.

Result or Strategy Description	Despite Section 6.41above, up to 5% of the area of each type of red-listed ecological community occurring in a development area may be altered or harvested if required for road access or to address a safety concern.
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	No red or blue listed ecological communities were found within or immediately adjacent to the proposed harvest area of this block.
Result or Strategy Description	With reference to individual development areas, where forested swamp areas >=0.25ha occur, they will be retained and a 1.5 tree-length (average width) management zone will be established to protect the forested swamp.
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no forested swamps within or adjacent to this block; therefore, the result or strategy does not apply.
Result or Strategy Description	Within management zone established under Section 6.34 above, >70% of the forest, measured in hectares, will be retained as mature or old forest.
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no forested swamps within or adjacent to this block; therefore, the result or strategy does not apply.
Community Watershed	
Result or Strategy Description	Prior to development activities within a community watershed, the applicable Plan Holders will form an agreement that documents: a) who is responsible for completing the watershed assessment and any updates that may be required; and b) how the rates of harvesting will be allocated, consistent with the watershed analysis; and c) who is responsible for tracking the rates of harvest within the community watershed.
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This block is not located within a community watershed.
Result or Strategy Description	Prior to proposing primary forest activities within a community watershed to which section 8.2 of the FPPR applies, the Plan Holders will do all of the following: a) ensure a watershed assessment is completed by a qualified professional that assesses the current watershed condition; the potential impacts on water quality, water quantity, including risks to public health, and timing of water flows from primary forest activities; and provides a potential schedule for harvesting within the community watershed that maintains the community watershed¿s values; and b) ensure that primary forest activities are consistent with any recommendations made in the watershed assessment, and c) ensure the watershed assessment indicated in Sub-section a) above, is updated by a qualified professional at least every five years, unless no additional primary forest activities are proposed; and d) maintain a group ledger, updated annually at a minimum, which tracks the development activities within the community watershed.
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This block is not located within a community watershed.
Cultural Heritage Resources	
Result or Strategy Description	The FSP Holders will submit maps for all proposed development areas to the Council of the Haida Nation, 30 days prior to cutting authority submission, or 30 days prior Timber Sale posting/approval by the BC Timber Sales Manager.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	BCTS has submitted maps, assessments, and digital data of the planned development area to the Haida Gwaii Solutions Table to review. This block was accepted by both the CHN and government members of the Haida Gwaii Solutions Table on March 3rd, 2016
Result or Strategy Description	The FSP Holders will,at a minimum of once annually, provide the Council of the Haida Nation with an opportunity to share information regarding cultural heritage resources that are the focus of traditional use and continued importance to the Haida Nation. Plan Holders will: a) identify areas where harvesting and/ or road construction activities are planned and request information respecting cultural heritage resources that are the focus of traditional use and continued importance within the identified areas; and b) keep a record of any information provided by the Haida First Nation on cultural heritage resources that are the focus of traditional use and continued importance within the Plan Area; and c) document how management activities will attempt to accommodate cultural heritage resources that are the focus of traditional use and continued importance, or why efforts to accommodate the traditional use were not made.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	BCTS has submitted maps, assessments, and digital data of the planned development area to the Haida Gwaii Solutions Table to review. All cultural features and resources identified during the development of this project will be delivered to the CHN by the end of the calendar year. This block was accepted by both the CHN and government members of the Haida Gwaii Solutions Table on March 3rd, 2016

Cultural Objectives	
Result or Strategy Description	<p>"Haida Traditional Heritage Features" are defined in the LUO as being those features listed in Schedule 2 of the LUO. However, in order to be measureable in the context of the FSP approval process, the features listed as HTHFs (Class 1 and Class 2) in the LUO are considered to be those that are of continued cultural significance to the Haida Nation, determined by using the following strategies:</p> <p>a) Potential HTHFs will be identified and assessed through the Cultural Features Identification Survey, completed by qualified surveyors.</p> <p>b) Where potential HTHFs are identified, AIAs will be completed, and the significance of the identified feature will be determined.</p> <p>c) Where identified features are deemed to be of continued cultural significance in the AIA, they will be classed as HTHFs and managed accordingly.</p>
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>No Haida Traditional Heritage Features were identified during the CFI survey completed by accredited surveyor Nick Reinhardt, RPF on January 6th, 2016.</p> <p>The discovery of previously unidentified cultural heritage or archaeological features must be immediately reported to the District Manager and the Council of the Haida Nation (CHN). All forest development activities will halt or be modified to the extent necessary to protect the discovered feature(s).</p>
Result or Strategy Description	<p>Prior to commencing harvesting or road construction activities in a development area, the applicable FSP Holder will ensure that a Cultural Features Identification Survey has been completed for the proposed area by a surveyor certified by the Council of the Haida Nation.</p>
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>In order to adequately manage and conserve cultural resource values and features, a Cultural Feature Identification (CFI) survey was completed by accredited surveyor Nick Reinhardt, RPF on January 6th, 2016.</p>
Result or Strategy Description	<p>Where Class 1 HTFFs are identified, they will be retained and a 1.0 tree-length (average width) no-harvest zone, measured from the edge of the HTHF, will be maintained to protect the HTFF. Adjacent the no- harvest zone a 1.0 tree-length (average width) management zone, measured from the edge of the no- harvest zone, will be established to protect the no-harvest zone, subject to a) and b), below.</p> <p>a) Where necessary to address site specific values, the Class 1 HTFF management zone identified under Section 6.7 above, may be decreased by up to 0.5 tree-lengths from the outer edge of the management zone, provided that there is no net loss of management zone area within the development area.</p> <p>b) The area of the management zone may be reduced, if necessary for road access, other infrastructure or to address safety concerns, provided that:</p> <p>i) the integrity of the HTFF is maintained; and</p> <p>ii) the size of the management zone is consistent with the outcome of a completed intergovernmental process.</p>
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>No Class 1 HTFFs were identified during the CFI survey completed by accredited surveyor Nick Reinhardt, RPF on January 6th, 2016.</p> <p>The discovery of previously unidentified cultural heritage or archaeological features must be immediately reported to the District Manager and the Council of the Haida Nation (CHN). All forest development activities will halt or be modified to the extent necessary to protect the discovered feature(s).</p>
Result or Strategy Description	<p>Where Class 1 HTHFs are identified, they will be retained and a 500m (minimum width) no-harvest zone, measured from the edge of the HTHF, will be maintained to protect the HTHF, subject to a) and b), below.</p> <p>a) Where a reduction in the no-harvest zone is required for road access, other infrastructure, or to address a safety concern and no practicable alternative exists, a Plan Holder may reduce the size of the no-harvest zone consistent with the outcome of a completed intergovernmental process.</p> <p>b) Where necessary to address site specific values, the no-harvest zone may be decreased by up to 0.5 tree-lengths from the outer edge of the zone, provided that there is no net loss of no-harvest zone area within the development area. Site specific values will be determined by the signing Forester and documented within the Site Plan.</p>
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>No Class 1 HTHFs were identified during the CFI survey completed by accredited surveyor Nick Reinhardt, RPF on January 6th, 2016.</p> <p>The discovery of previously unidentified cultural heritage or archaeological features must be immediately reported to the District Manager and the Council of the Haida Nation (CHN). All forest development activities will halt or be modified to the extent necessary to protect the discovered feature(s).</p>
Result or Strategy Description	<p>Where Class 2 HTFFs are identified within a development area, >= 50% of the identified occurrences will be retained and their integrity protected. Stand level retention will be retained where required, to maintain the integrity of the HTFF. Additional strategies for preserving the integrity of HTFFs include the following:</p> <p>a) adjusting operational boundaries to exclude HTFF areas; and</p> <p>b) modifying harvesting practices in the vicinity of HTFFs.</p>
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>No Class 2 HTFFs were identified during the CFI survey completed by accredited surveyor Nick Reinhardt, RPF on January 6th, 2016.</p> <p>The discovery of previously unidentified cultural heritage or archaeological features must be immediately reported to the District Manager and the Council of the Haida Nation (CHN). All forest development activities will halt or be modified to the extent necessary to protect the discovered feature(s).</p>

Result or Strategy Description	<p>Where Class 2 HTHFs are identified, they will be retained and a 100m (average width) no-harvest zone, measured from the edge of the HTHF, will be maintained to protect the HTHF, subject to a) and b), below.</p> <p>a) Where alteration, removal or reduction of the Class 2 HTHF or no-harvest zone is required for road access, other infrastructure, or to address a safety concern and no practicable alternative exists, a Plan Holder may alter, remove or reduce the HTHF and/ or the size of the no-harvest zone consistent with the outcome of a completed intergovernmental process.</p> <p>b) Where necessary to address site specific values, the no-harvest zone may be decreased by up to 0.5 tree-lengths from the outer edge of the zone, provided that there is no net loss of no-harvest zone area within the development area. Site specific values will be determined by the signing Forester and documented within the Site Plan.</p> <p>Where the Class 2 HTHF is a "Karst Feature", it will be also be subject to Section 6.80, below.</p>
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>No Class 2 HTHFs were identified during the CFI survey completed by accredited surveyor Nick Reinhardt, RPF on January 6th, 2016.</p> <p>The discovery of previously unidentified cultural heritage or archaeological features must be immediately reported to the District Manager and the Council of the Haida Nation (CHN). All forest development activities will halt or be modified to the extent necessary to protect the discovered feature(s).</p>
Result or Strategy Description	Where Class 3 HTFFs are identified within a development area, they will be retained and protected within established stand level retention to the extent practicable. The percentage of HTFF occurrences that are protected within a given development area will range from 0-100%, depending on the location of the HTFFs and the location of stand level retention that is established to meet other objectives.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	Skunk Cabbage, Snake Liverwort, Licorice Fern, and Sword Fern were identified during the CFI survey completed by accredited surveyor Nick Reinhardt, RPF on January 6th, 2016.. The 16.1 ha WTRA associated with this block contains scattered occurrences of these features. In addition, any Class 3 HTFFs that are discovered during harvesting of this block should be retained where practicable.
Result or Strategy Description	<p>Where western yew patches are identified within a development area,they will be protected by establishing stand level retention areas, subject to:</p> <p>a) western yew patches may be altered or removed to accommodate operational requirements for road and bridge construction, where no practicable alternative exists.</p>
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	No Western Yew patches were identified during the CFI survey completed by accredited surveyor Nick Reinhardt, RPF on January 6th, 2016.
Result or Strategy Description	Where yew trees are identified within a development area and do not meet the definition of a western yew patch, the trees will be incorporated within stand level retention areas, where practicable.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	No individual Western Yew tree's were identified during the CFI survey completed by accredited surveyor Nick Reinhardt, RPF on January 6th, 2016.
Result or Strategy Description	<p>Despite Section 6.1 above, circumstances may arise where harvesting within Cedar Stewardship Area(s) (CS Area) for commercial purposes is desired. Where harvesting is proposed within a CS Area, the Plan Holders will ensure all of the following:</p> <p>a) any proposed harvest activities with CS Areas are consistent with the outcome of an intergovernmental process, completed by the Plan Holders as a group; and</p> <p>b) ensure the total CS Area area harvested is less than or equal to 10% of the total of all CS Areas (2,536.3ha, as indicated in Table 8, below), and that no more than 250ha is harvested in a 10 year period; and</p> <p>c) the CS Area harvest within a given Landscape Unit, for each 10 year period, will be proportional to the occurrence of CS Areas within the LU (see Table 7, below); and</p> <p>d) the Plan Holders will maintain a group ledger, updated annually at a minimum, which tracks any CS Area harvest activities; and</p> <p>e) where CS Areas overlap tenures outside of the Plan Area, the Plan Holders will make reasonable efforts to consult with the relevant tenure holder(s) to ensure that CS Area harvest level do not exceed the limits described in b) and c), above.</p> <p>Tables 7 and 8 are attached.</p>
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The pre-harvest cedar composition for the proposed developmentare is less than 20%; therefore the result or strategy does not apply.
Result or Strategy Description	Plan Holders will not harvest within CS Areas (as identified in the LUO, Schedule 3).
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This block is not located within, or adjacent to a Cedar Stewardship Area, as per Section 6.1 and Schedule 3 of the LUO; therefore, a result or strategy does not apply.
Result or Strategy Description	The cedar regeneration requirement for a given cutblock may be lower than those set in Section 6.11 above, provided that the new requirement is consistent with the outcome of a completed intergovernmental process.
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The preharvest cedar composition for the proposed development area is less than 20%; therefore, the result or strategy does not apply.

Result or Strategy Description	<p>Where cultural cedar stands, CMTs, or monumental cedar greater than 120cm (measured at dbh) are identified, they will be retained and a 0.5 tree-length (minimum width) no-harvest zone will be maintained to protect identified feature. The no-harvest zone will be protected by establishing a 1.0 tree-length (average width) management zone, measured from the outer boundary of the no-harvest zone, subject to a), b) and c), below.</p> <p>a) Where alteration or removal of a cultural cedar stand, CMT or monumental cedar is required for road access, other infrastructure, or to address a safety concern, and no practicable alternative exists, a Plan Holder may alter or remove the cultural cedar stand, CMT or monumental cedar consistent with the outcome of a completed intergovernmental process, and the harvested CMT or monumental cedar is made available to the Haida Nation.</p> <p>b) Where a reduction in the size of the no-harvest zone is required for road access, other infrastructure, or to address a safety concern, and no practicable alternative exists, a Plan Holder may reduce the area of the no-harvest zone(s) consistent with the outcome of a completed intergovernmental process, and provided the integrity of the cultural cedar stand, CMT or monumental cedar is maintained.</p> <p>c) Where a reduction in the size of the management zone is necessary to address operational constraints or a safety concern, a Plan Holder may reduce the area of the management zone(s) consistent with the outcome of a completed intergovernmental process, and provided the integrity of the management zone is maintained.</p>
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	No cultural cedar stands, CMTs or monumental cedar greater than 120cm were identified within or adjacent to the development area; therefore, the result or strategy does not apply.
Result or Strategy Description	<p>Where development areas are either:</p> <p>i) > 10ha and the pre-harvest cedar (western redcedar and yellow cedar) content >30%; or</p> <p>ii) <= 10ha and the pre-harvest cedar (western redcedar and yellow cedar) content >60%;</p> <p>then Plan Holders will retain a minimum of 15% of the combined pre-harvest cedar composition of the development area, measured in hectares.</p> <p>The pre-harvest cedar composition will be determined by calculating the weighted average cedar content for the entire development area as indicated on the inventory mapping for the polygons in the development area. The areas that contribute to the cedar retention requirements will be calculated by summing the weighted cedar content for the contributing areas, in hectares, based on the inventory mapping for the applicable polygons.</p> <p>Plan Holders will meet the 15% cedar retention requirement using all of the following strategies:</p> <p>a) Areas designated to contribute to the cedar retention requirements will be first be located within no-harvest zones, management zones and stand level retention areas already designated for other objectives.</p> <p>b) Where existing cedar reserves are insufficient to meet the cedar retention requirements, then additional cedar retention areas will be retained.</p> <p>c) Cedar retention areas will located such that the retention areas are large and contiguous to the extent practicable. Cedar retention areas that contribute to meeting the 15% retention requirement will be > 1.0ha in size.</p> <p>d) Within the areas that contribute to the cedar retention requirement, a range of diameters of redcedar and yellow cedar will be retained which are representative of the pre-harvest area, as documented by the signing Forester in the Site Plan documents.</p>
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The preharvest cedar composition for the proposed development area is less than 20%; therefore, the result or strategy does not apply.
Result or Strategy Description	<p>Where development areas have pre-harvest cedar (western redcedar and yellow cedar)composition greater than 20% in the harvested area, as indicated in the cruise compilation (measured in percent of cedar sph, not including dead potential or dead useless), then the Plan Holder will regenerate the area according to the minimum post-harvest cedar composition and strategies listed below (see Table 8 attached), subject to Section 6.12.</p> <p>The cedar commitment will be determined on a cutblock by cutblock basis. The cedar regeneration requirement for a cutblock will be calculated by multiplying the NAR times the appropriate Minimum Post-Harvest Cedar Composition, as indicated in Table 8, below. Location of planted cedar within the cutblock will be at the discretion of the prescribing Forester, and consistent with approved stocking standards.</p> <p>Plan Holders will use the following strategies to meet the objective:</p> <p>a) Plan Holders will strive to meet the cedar commitment through planting and/ or natural regeneration.</p> <p>b) Where deer browse hazard is moderate to high, planted cedar trees will be protected. Protection measures may include coning, scented deterrents, or caging.</p> <p>c) For areas that have been planted with cedar, where the cedar content falls below 80% of the Minimum Post-Harvest Cedar Composition requirement, the area will be fill-planted once. The cedar content will be assessed using Plan Holder survey information.</p> <p>d) Cedar acceptability criteria will be as follows:</p> <p>i) Regenerated cedar will only be accepted if they are of good form and vigour (refer to Appendix B).</p> <p>ii) Regenerated cedar will only be accepted if they are >= 1.2m tall.</p> <p>e) The cedar regeneration obligation due-date will be no sooner than 6 years, and no later than 20 years, post-harvest commencement. Plan Holders will complete cedar obligation surveys and data will be declared within the Ministry of Forests RESULTS system.</p> <p>Should the full cedar regen obligation not be fully met at the time of assessment, the amount of cedar regenerated will be accepted, provided that a) through c) from above have been completed, and the obligation will be deemed to have been met, with no further actions required.</p>
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The preharvest cedar composition for the proposed development area is less than 20%; therefore, the result or strategy does not apply.
Result or Strategy Description	<p>Where monumental cedar are identified in a development area, and are not located within a cultural cedar stand and are < 120cm (measured at dbh), they may be harvested, subject to:</p> <p>a) the applicable Plan Holder completing an intergovernmental process confirming that the monumental cedar is not required for cultural use; or</p> <p>b) the applicable Plan Holder completing an intergovernmental process confirming that harvesting the monumental cedar is required for road access, other infrastructure, or to address a safety concern and the Plan Holder will make the monumental cedar available to the Haida Nation, or other specific measures will be identified.</p> <p>Where monumental cedar are harvested under Section 6.16, the greater of 10% (measured in stems per hectare), or one monumental cedar will be retained within the development area.</p>
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	No cultural cedar stands, CMTs or monumental cedar greater than 120cm were identified within or adjacent to the development area; therefore, the result or strategy does not apply.

Forest Reserves	
Result or Strategy Description	Plan Holders will retain all the Forest Reserves, as shown on LUO Schedule 8.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This block is not located within an identified Forest Reserve polygon.
Result or Strategy Description	Despite Section 6.58 above, the area of an individual Forest Reserve may be reduced by up to 5%, provided that: a) applicable results and strategies within this FSP address the target requirements indicated in LUO Schedules 9 and 10; and b) the remaining Forest >= 5.0ha; and c) the reduction is necessary to: i) accommodate operational requirements for road or bridge construction, where no practicable alternative exists; or ii) accommodate road maintenance, deactivation, removal of danger trees, brushing and clearing within a right-of way, or for safety purposes, on any existing road under active tenure; or iii) to mitigate the impact of windthrow.
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This block is not located within an identified Forest Reserve polygon; therefore, the result or strategy does not apply.
Result or Strategy Description	Despite Section6.58 above, a portion of a Forest Reserve may be moved to another location within the same Landscape Unit, provided that: a) the alteration of the Forest Reserve is consistent with the outcome of a completed intergovernmental process; and b) applicable results and strategies within this FSP (i.e., Marbled Murrelet and Ecological Representation) address all of the target requirements indicated in LUO Schedules 9 and 10 for the applicable LU; and c) the portion removed is <=20 ha; and d) the areas retained are > 200m in width; and e) the relocation does not result in any Forest Reserve that is < 5.0ha; and f) the relocation follows the recommendations of an assessment completed by a qualified professional which focuses on identifying candidate reserve areas consistent with meeting the LUO objectives established for Marbled Murrelet nesting habitat and ecological representation.
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This block is not located within an identified Forest Reserve polygon; therefore, the result or strategy does not apply.

Measures for Preventing the Introduction or Spread of Invasive Plants																																																	
Result or Strategy Description	<p>7.0 Measures for Invasive Plants FRPA s. 47; FPPR s. 17 Sections 7.1 through 7.8 apply to FDU A. Table 11: Invasive Plants known to occur in the Plan Area, including high-priority species</p> <table><tr><th>Common Name</th><th>Scientific Name</th><th>High Priority Invasive Plant Species on the Haida Gwaii?</th></tr><tr><td>Gorse</td><td>Ulex europaeus</td><td>Y</td></tr><tr><td>Scotch Broom</td><td>Cytisus scoparius</td><td>Y</td></tr><tr><td>Japanese Knotweed</td><td>Polygonum cuspidatum</td><td>Y</td></tr><tr><td>Yellow Flag Iris</td><td>Iris pseudacorus</td><td>Y</td></tr><tr><td>Common Tansy</td><td>Tanacetum vulgare</td><td>Y</td></tr><tr><td>Meadow Hawkweed</td><td>Hieracium pilosella</td><td>Y</td></tr><tr><td>Orange Hawkweed</td><td>Hieracium aurantiacum</td><td>Y</td></tr><tr><td>Marsh Plume Thistle</td><td>Cirsium palustre</td><td>Y</td></tr><tr><td>Tansy Ragwort</td><td>Senecio jacobaea</td><td>Y</td></tr><tr><td>Himalayan Knotweed</td><td>Polygonum polystachyum</td><td>Y</td></tr><tr><td>Spotted Hawkweed</td><td>Hieracium maculatum</td><td>Y</td></tr><tr><td>Canada Thistle</td><td>Cirsium arvense</td><td></td></tr><tr><td>Bull Thistle</td><td>Cirsium vulgare</td><td></td></tr><tr><td>Common Burdock</td><td>Arctium minus</td><td></td></tr><tr><td>Oxeye Daisy</td><td>Chrysanthemum leucanthemem</td><td></td></tr></table> <p>Where the introduction or spread of invasive plants is likely the result of forest practices of a Plan Holder, the Plan Holder will do the following, unless the Plan Holder deems the area to be an active running surface:</p> <p>Training</p> <p>7.1 Provide appropriate personnel training in the recognition of invasive plants that are, or may potentially be within (i.e., known to occur in adjacent areas) the Plan area. Training will include the use of the provincial IAPP application, map display and Report-A-Weed form and procedures.</p> <p>Monitoring & Reporting</p> <p>7.2 Monitor for the presence of invasive plant species during forest development fieldwork, silviculture surveys, routine inspections and general travel. Where new invasive plant incidences are identified, they will be reported within 30 days to the NWIPC, or by filing a report in the IAPP application directly.</p> <p>7.3 Where new occurrences of invasive plants are detected (either a newly introduced plant species, or a new location of a plant species known to already exist within the Plan Area), the site will be assessed by trained personnel. Where practicable, an appropriate action plan will be prepared and implemented to address the invasive plant occurrence. Action plans may include working with government agencies to develop and implement an eradication or management plan.</p> <p>Sanitation & Disposal</p> <p>7.4 Recommend their logging and road building contractors to inspect vehicles and equipment, particularly tracks and undercarriages, for the presence of plant parts and that equipment be cleaned prior to leaving an area that is known to contain priority invasive plant species.</p> <p>7.5 Where invasive plant material is disposed of it will be disposed of in a landfill or by burning, to the extent practicable.</p> <p>Re-vegetation</p> <p>7.6 For newly (after the date of Plan commencement) developed areas (roads and cutblocks) that result in exposed mineral soils (where contiguous area is greater than 0.1ha, with a contiguous minimum width of 5m, excluding the running surface of a road), the Plan Holder will do the following:</p> <ul style="list-style-type: none">a) re-vegetate the exposed area as climatic and soil conditions allow and within one year of disturbance, if:<ul style="list-style-type: none">i) the disturbed area is not to be reforested and is not the running surface of a road; andii) the soil disturbance is likely to result in the introduction or spread of the established invasive plants; andiii) re-vegetating the site will materially reduce that likelihood of the spread of the invasive plants.b) monitor the seeded areas for one year from the date of initial seeding to determine if the seed germinates to the extent necessary to occupy the areas of exposed soil; andc) if within one year of the area being initially seeded, the seed does not germinate to the extent necessary to occupy the areas of exposed soil, the Plan Holder will re-seed the area as soon as practicable. Where seeding alone is not successful, fertilization and scarification treatments will be considered, where feasible. <p>7.7 For re-vegetation, Plan Holders will use Common No. 1 Forage Mixture (according to Canada’s Seeds Regulations), or better.</p> <p>Roadside Brushing</p> <p>7.8</p>	Common Name	Scientific Name	High Priority Invasive Plant Species on the Haida Gwaii?	Gorse	Ulex europaeus	Y	Scotch Broom	Cytisus scoparius	Y	Japanese Knotweed	Polygonum cuspidatum	Y	Yellow Flag Iris	Iris pseudacorus	Y	Common Tansy	Tanacetum vulgare	Y	Meadow Hawkweed	Hieracium pilosella	Y	Orange Hawkweed	Hieracium aurantiacum	Y	Marsh Plume Thistle	Cirsium palustre	Y	Tansy Ragwort	Senecio jacobaea	Y	Himalayan Knotweed	Polygonum polystachyum	Y	Spotted Hawkweed	Hieracium maculatum	Y	Canada Thistle	Cirsium arvense		Bull Thistle	Cirsium vulgare		Common Burdock	Arctium minus		Oxeye Daisy	Chrysanthemum leucanthemem	
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Applies:	YES																																																
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>A review of the Invasive Alien Plant Program - No invasive species were identified within or in close proximity to the development area. However several invasive plants were identified in the IAPP along the South Bay Mainline, which will likely be the primary hauling route. The species identified were: Burdock species (BU), Canada thistle (CT), Bull thistle (BT), Sow thistle species (SO), and Oxeye daisy (OD).</p> <p>The Chinook Invasive Plant Best Management Practices guidelines apply. Grass seeding disturbed areas with a sod grass native seed, or a coastal agronomic seed Mixture Common #1 Forage or better shall occur post harvest to eliminate potential invasive plant seed beds.</p> <p>No invasive plant species were observed within this block during field engineering or while collecting data for the preparation of this Site Plan.</p>																																																
Recreation Resources																																																	
Result or Strategy Description	<p>Prior to proposing timber harvest or road construction in an area adjacent to a designated recreation site or trail with established objectives, the Plan Holder will consult with the government agency responsible for the recreation site or trail, to ensure that the proposed activity will be conducted in accordance with the established objectives applicable to the area.</p>																																																
Applies:	YES																																																
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>No designated recreation sites or trails are found within or immediately adjacent to the proposed harvest area of this block.</p>																																																
Result or Strategy Description	<p>Where "non-motorized access" is the applicable established objective for the designated recreation site or trail, and proposed new road construction will provide motorized access to the recreation resource, the Plan Holder will:</p> <ul style="list-style-type: none">a) deactivate the road, within one year following completion of primary forest activities, to a condition which re-establishes the degree of motorized access similar to that which existed prior to harvest operations; orb) obtain written approval from the government agency responsible for the recreation site or trail, to maintain access for further operations or activities, and the access will be established as per the approval.																																																
Applies:	YES																																																
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>No designated recreation sites or trails are found within or immediately adjacent to the proposed harvest area of this block.</p>																																																

Recruitment in No-harvest Zones, Mgmt Zones and Stand Level Retention	
Result or Strategy Description	Where some or all of the no-harvest zones, management zones or stand level retention areas established under the applicable LUO objectives (refer to Table 9, attached) have been previously altered or harvested, the Plan Holders will provide for recruitment of mature and old forest (functional riparian forest for Sections 6.17, 6.18, 6.20) in the no-harvest zone, management zone or stand level retention area, as applicable, through natural processes (passive recruitment) and may promote recruitment through voluntary interventions (active recruitment). For the management zones associated with Cultural Cedar Stands, CMTs and Monumental Cedar, the Plan Holders will maintain or recruit, in the shortest possible timeframe, at least 90% of the forest as mature and old forest, through natural processes (passive) and may promote recruitment through voluntary interventions (active). Where the recruitment strategy is to use natural processes (passive), Plan Holders will not harvest any of the existing mature or old forest in the management zone until the 90% threshold has been attained.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no no-harvest zones, management zones, or stand level retention areas in the vicinity of this block that have been previously altered. The retention strategy for Block SKI537 will follow the requirements described in Section 7(1) of the LUO.
Resource Features	
Result or Strategy Description	Where karst Resource Features are encountered during primary forest activities, they will be managed as per Section 6.6 above. Regardless of the outcome of the inter-governmental process, karst Resource Features will not be damaged or rendered ineffective, consistent with FPPR s. 70 (1).
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	No karst features were identified within or adjacent to this block during field engineering or collection of data for this Site Plan.
Riparian Management	
Result or Strategy Description	For Type I fish habitat, Type II fish habitat, upland streams, and wetlands and lakes that do not meet the definition of Type I or II fish habitat, as defined in the LUO; Plan Holders adopt the FPPR requirements in relation to restrictions within a riparian management area.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	NCD 1 does not meet the definition of Type I fish habitat, or Type II fish habitat; therefore, has been managed for in accordance with the FPPR requirements for which there are no restrictions within the riparian area. A Machine Free Zone (MFZ) has been hung at 5m along both sides of NCD1 within the block. Where a machine cannot reach timber located with the MFZ, it should be hand felled.
Result or Strategy Description	Retention of trees within riparian management zones will be as follows: a) For Type I and Type II fish habitat, the retention of trees within riparian management zones is detailed in Sections 6.17 and 6.18, above, respectively. b) For Upland Streams, the retention of trees within riparian management zones, measured in basal area, will range from 0-100%, as deemed appropriate by the signing Forester and documented within the Site Plan. Additional factors for riparian retention for Upland Streams are detailed in Section 6.27 and 6.28, above. c) For wetlands and lakes that do not meet the definition of Type I or II fish habitat, as defined in the LUO, with respect to FPPR s. 12(3), unless specific wildlife and/ or biodiversity values are identified in the riparian management area of a wetland or lake, retention of trees within the RMZ will be based on consideration of the likelihood of damages to the riparian feature or RRZ caused by windthrow. Basal area retention will range from 0-100%, as deemed appropriate by the signing Forester and documented within the Site Plan.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	Baxter Creek and streams B and C, are classified as Type I fish habitat, as per Section 10 of the LUO. A no-harvest zone of 2.0 tree length (80.0m for the 01 site series) established under Section 10(3) of the LUO. Baxter creek and Streams B&C are external to block SKI537, but stream C is crossed by road SPUR30C-1. Tree heights were selected using the dominant site series of the block (CWHwh1 - 01 - mature stand) and the tree-heights established in Schedule 5 of the LUO. Streams B and C also have a section that is classified as Type II fish habitat, as per Section 11 of the LUO. A no-harvest zone of 1.0 tree length (40.0m) and a management zone of 0.5 tree length (20.0m) have been established on either side of each stream as per Schedule 5 (CWHwh1 - 01 site series - mature stand) of the LUO. There is one upland stream; Stream A, that exists adjacent and within Block SKI537. A Machine Free Zone has been hung along both sides of stream within the block section of stream A. Non-merchantable timber within the harvest area will be retained within 10m of the stream bank where operationally feasible.
Result or Strategy Description	Where a lake meets the definition of Type I or II fish habitat, as defined in the LUO, then the lake is classed as Type I or II Fish habitat and managed accordingly, otherwise Plan Holders adopt the FPPR requirements in relation to lake riparian classes and minimum zone widths.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no lake features within, or immediately adjacent to this block; therefore, the result or strategy does not apply.
Result or Strategy Description	For wetlands and lakes that do not meet the definition of Type I or II fish habitat, as defined in the LUO, Plan Holders adopt the FPPR requirements in relation to restrictions within a riparian reserve zone.
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no wetlands and or lakes that do not meet the definition of of Type I or II fish habitat within or adjacent to the harvest area. Therefore, the Result and Strategy does not apply.
Result or Strategy Description	Where a wetland meets the definition of Type I or II Fish Habitat, as defined in the LUO, then the wetland is classed as Type I or II Fish habitat and managed accordingly, otherwise, Plan Holders adopt the FPPR requirements in relation to wetland riparian classes and minimum zone widths.
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no wetlands and or lakes that meet the definition of of Type I or II fish habitat within or adjacent to the harvest area. Therefore, the Result and Strategy does not apply.

Soil Objectives	
Result or Strategy Description	The Plan Holders undertake (FPPRs.12.1(1)) to comply with the legislated requirements setting limits for soil disturbance and for permanent access structures as outlined in FPPR s. 35 and 36.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	<p>This block and the associated road network is consistent with Section 35 and 36 of the FPPR. As per Section 35, due to the standard units being predominantly comprised of sensitive soils, a maximum 5% soil disturbance, and a maximum roadside disturbance limit of 25% is permitted.</p> <p>The total area in permanent access stuctures is 1.3ha which is equal to 3.7% of the 35.1haTAUP, and within the maximum allowable limit of 7%, as per Section 36.</p>
Visual Objectives	
Result or Strategy Description	<p>The Plan Holders will conduct road construction or timber harvesting activities within Scenic Areas such that they conform to the established VQO¿s, unless it is for the following exceptional circumstances beyond the control of the Plan Holders:</p> <p>a) it is to recover timber damaged from natural causes and the action must be completed expeditiously; or</p> <p>b) the activities are otherwise required by government.</p> <p>If harvesting and/ or road building occurs and the VQO is exceeded, as per subsections a), or b) above, then the Plan Holder will ensure that good design principles are followed and the VQO is exceeded to the minimum amount required.</p>
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There are no established Visual Quality Objectives (eVQO) in the planned harvest area of this block.
Wildlife & Biodiversity - Landscape Level	
Result or Strategy Description	The Plan Holders undertake (FPPR s.12.1(3)) to comply with the legislated requirements in relation to harvesting adjacent to another cutblock (FPPR s. 65), subject to Section 6.73, below.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This block is consistent with Section 65 of the FPPR; in that, the total NAR for this block is < 40ha, and is not adjacent to a nonconforming cutblock, as per Section 65 (3). Planned block SKI510 is greater than 300m from this block's havest area and does not meet the definition of being "adjacent".
Result or Strategy Description	The Plan Holders undertake (FPPRs.12.1(3)) to comply with the legislated requirements in relation to maximum cutblock size (FPPR s. 64).
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This block is consistent with Section 64 of the FPPR; in that, the total NAR for this block is < 40ha, and is not adjacent to a nonconforming cutblock, as per Section 65 (3). Planned block SKI510 is greater than 300m from this block's havest area and does not meet the definition of being "adjacent".
Result or Strategy Description	<p>As per FPPR sec.12.4(2), the Plan Holders will adhere to FPPR s.65 for all areas within FDU A,with the following exceptions, which will only apply to the Plan Area within the Eden Lake Landscape Unit, as shown on LUO Schedule 1:</p> <p>a) Section 65 (3)(a) is replaced with: at least 75% of the net area to be reforested of the existing cutblock is stocked such that the average height of the well-spaced trees is a minimum of the free growing height as specified in the approved Stocking Standards, located in Appendix C; and</p> <p>b) Section 65 (3)(b)(ii) is stocked such that the average height of the well-spaced trees is a minimum of the free growing height as specified in the approved Stocking Standards, located in Appendix C.</p>
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This block is located within the Skidegate Lake Landscape Unit; therefore, the result or strategy does not apply.
Wildlife & Biodiversity - Stand Level	
Result or Strategy Description	The Plan Holders undertake (FPPR s.12.1(4)) to comply with the legislated requirements in relation to wildlife tree retention (FPPR. s. 66) and restriction on harvesting in a wildlife tree retention area (FPPR. s. 67). In regards to the FPPR requirements for wildlife tree retention, each Plan Holder is individually responsible for meeting the requirements and tracking their wildlife tree retention areas.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	There is 16.1ha of WTRA that is established adjacent to the block boundary and is equal to 45.9% of the TAUP. There are no plans to harvest any area within the WTRA (FPPR.s.66). The WTRA is ecologically and structurally similar to the preharvest condition of the block and serves to maintain the integrity of Type I fish habitat and Class 3 HTFF's adjacent to the block.
Wildlife Habitat Areas and General Wildlife Measures	
Result or Strategy Description	In respect of the WHAs, the Plan Holders will comply with the applicable GWMs, as per FPPR s.69.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This block is not located within a Northern Goshawk WHA.
Result or Strategy Description	In respect of the WHAs, the Plan Holders will comply with the applicable GWMs, as per FPPR s.69.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This block is not located within a Northern Goshawk WHA.

Wildlife Objectives	
Result or Strategy Description	Despite Sections 6.50 and 6.51above, Northern Goshawk reserves (LUOSch.12) and no-harvest zones may be reduced, provided that: a) the reduction is consistent with the outcome of a completed intergovernmental process; and b) the reduction is required for road access, where no practicable alternative exists, or to address a safety concern; and c) the reduction does not occur during Northern Goshawk breeding season; and d) there is no net loss to the Northern Goshawk reserve area.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	No Northern Goshawk nests were identified within, or adjacent to the proposed harvest opening during field engineering or collection of data for this Site Plan.
Result or Strategy Description	For each LU, and where development areas are proposed by a Plan Holder, the applicable Plan Holders will do the following, prior to development activities within the applicable LU: a) a Marbled Murrelet nesting habitat retention inventory will be completed; and b) Applicable Plan Holders will form an agreement that documents how the required Marbled Murrelet nesting habitat retention will be allocated and who is responsible for tracking the nesting habitat retention within the LU, as indicated in Section 6.48c), above.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The Zimmfor analysis - September 2015, shows the MAMU Nesting Habitat Requirement for the TSA as being in a 33ha deficit for the Skidegate Lake Landscape Unit. However, there is no MAMU habitat, as identified under Schedule 9 of the LUO, that is within or adjacent to the development area. In addition, the forest composition within the proposed development area does not meet the qualifications as MAMU habitat.
Result or Strategy Description	For the purposes of recruiting future Black Bear den sites, where practicable: a) suitable western redcedar or yellow-cedar will be retained within the management zone identified in Section 6.44 above; and b) trees, snags, stumps and logs >80cm in diameter will be retained within stand level retention associated with the development area.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The WTRA for allocated for this block may contain trees, snags and stumps suitable for future Black Bear den sites.
Result or Strategy Description	Plan Holders will retain all Northern Goshawk reserves as shown on LUO Schedule 12.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This block is not within an identified Northern Goshawk reserve as shown on Schedule 12 of the LUO.
Result or Strategy Description	Plan Holders will retain all Northern Saw-whet Owl reserves, as shown on LUO Schedule 12
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	This block is not located within an identified Northern Saw-Whet Owl reserve area as shown on Schedule 12 of the LUO.
Result or Strategy Description	Where a Plan Holder discovers a new potential Great Blue Heron nest site, the Plan Holder will: a) cease harvesting and road-building activities within a 350m radius of the potential nest immediately and report the location of the potential nest to the Council of the Haida Nation and the Province of BC as soon as practicable; and b) have the nest and surrounding area assessed by a qualified professional; and c) where the qualified professional determines the nest to be a Great Blue Heron nest, a no-harvest zone will be established consistent with 6.53 above; and d) the location of the confirmed nest will be reported to the Council of the Haida Nation and the Province of BC as soon as practicable; and e) unless confirmed by a qualified professional to be inactive three consecutive years during the Great Blue Heron Breeding season (reconfirmed annually), a restricted activity zone will be maintained during the breeding season, with a minimum radius of 150m measured from the edge of the no- harvest zone.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	Where a new potential Great Blue Heron nest site is discovered within or adjacent to this block, the Plan Holder will follow the strategies outlined in Section 6.54 of the approved Haida Gwaii Forest Stewardship Plan - November 2011.
Result or Strategy Description	Where a Plan Holder discovers a new potential Northern Saw-whet Owl nest that is outside of the LUO Schedule 12 reserves, the Plan Holder will: a) cease harvesting and road-building activities within a 180m radius of the potential nest immediately and report the location of the potential nest to the Council of the Haida Nation and the Province of BC as soon as practicable; and b) have the nest and surrounding area assessed by a qualified professional; and c) where the qualified professional determines the nest to be a Northern Saw-whet Owl nest, a no- harvest zone will be established around the nest site that is a minimum of 10ha and centred on the nest; and d) the location of the confirmed nest will be reported to the Council of the Haida Nation and the Province of BC as soon as practicable.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	Where a new potential Northern Saw-whet Owl nest is found during harvest activities, the Plan Holder will follow the strategies outlined in Section 6.54 of the approved Haida Gwaii Forest Stewardship Plan - November 2011.

Result or Strategy Description	Where a Plan Holder discovers a potential Northern Goshawk nest that outside of the LUO Schedule12 reserves, the Plan Holder will do all of the following: a) cease harvesting and road-building activities within 800m of the potential nest immediately and report the location of the potential nest to the Council of the Haida Nation and the Province of BC as soon as practicable; and b) have the nest and surrounding area assessed by a qualified professional; and c) where the qualified professional determines the nest to be a Northern Goshawk nest, a no-harvest zone will be established around the nest site, that is a minimum of 200ha and that maximizes the best available nesting and foraging habitat available, to protect the integrity of the nest site, consistent with the assessment and recommendations of a qualified professional; and d) the location of the confirmed nest will be reported to the Council of the Haida Nation and the Province of BC as soon as practicable; and e) unless the nest is confirmed by a qualified professional to be inactive during the Northern Goshawk breeding season (reconfirmed annually), a restricted activity zone will be maintained during the breeding season, with a minimum radius of 800m around the nest site.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	If a plan holder discovers a potential Northern Goshawk nest within, or in the vicinity of this block, the strategies outlined in Section 6.51 of the approved Haida Gwaii Forest Stewardship Plan - November 2011 will apply.
Result or Strategy Description	Where practicable, Northern Saw-whet Owl core nesting areas will be identified and retained within stand level retention and other no-harvest or management zone areas and distributed across the landscape, with a target maximum inter-patch spacing of 1,400m.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	If Northern Saw-whet Owl core nesting areas are identified during harvesting of this block, the Plan Holder will follow the strategies outlined in Section 6.57 of the approved Haida Gwaii Forest Stewardship Plan - November, 2011.
Result or Strategy Description	With reference to individual development areas, where Black Bear dens occur,they will be retained and a 20m (minimum width) no-harvest zone will be maintained to protect the den. The no-harvest zone will be protected by establishing a 1.0 tree-length (average width) management zone, measured from the outer edge of the reserve zone.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	No Black Bear Dens were identified within, or adjacent to this block during the completion of the CFI, field engineering, or collection of data for this Site Plan.
Result or Strategy Description	With reference to individual development areas, where Great Blue Heron nest sites occur they will be retained and a 350m (minimum width) no-harvest zone, measured from the edge of the nest site, will be maintained to protect the nest site. Additionally, the no-harvest zone will be >= 45ha in size.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	Where a new potential Great Blue Heron nest site is discovered within or adjacent to this block, the Plan Holder will follow the strategies outlined in Section 6.54 of the approved Haida Gwaii Forest Stewardship Plan - November 2011.
Result or Strategy Description	Within each Landscape Unit ,and where development areas are proposed by a Plan Holder, prior to development activities, the Plan Holders will: a) retain an amount of Marbled Murrelet nesting habitat within each LU greater than or equal to the LU target area listed in LUO Schedule 9; and b) ensure the nesting habitat referred to in Sub-section a) above, is within the areas shown in LUO Schedule 11; or may be a different area than identified in LUO Schedule 11, provided the nesting habitat is Class 1 or 2, as identified by a qualified professional; and c) maintain a group ledger, updated annually at a minimum, which tracks the depletions and additions to the Marbled Murrelet nesting habitat retention inventory, by LU.
Applies:	YES
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	The Zimmfor analysis - September 2015, shows the MAMU Nesting Habitat Requirement for the TSA as being in a 33ha deficit for the Skidegate Lake Landscape Unit. However, there is no MAMU habitat, as identified under Schedule 9 of the LUO, that is within or adjacent to the development area. In addition, the forest composition within the proposed development area does not meet the qualifications as MAMU habitat.
Result or Strategy Description	Despite Section 6.44 above, alteration or removal of a Black Bear den or its no-harvest zone, or both may occur, provided that: a) the alteration and, or removal is consistent with the outcome of a completed intergovernmental process; and b) the alteration and/ or removal is required for road access or to address a safety concern; and c) the alteration or removal does not occur during the winter hibernation season.
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	No Black Bear Dens were identified within the proposed harvest opening during the completion of the CFI survey, field engineering or collection of data for this Site Plan; therefore, the result or strategy does not apply.
Result or Strategy Description	Despite Section 6.44 above, alteration or removal of trees within the management zone may occur, outside of the winter hibernation season, consistent with any of the following: a) the alteration and/ or removal is required to accommodate operational requirements for road or bridge construction and no practicable alternative exists; or b) for any existing road under active tenure, the alteration and/ or removal is required to accommodate: road maintenance, deactivation, the removal of danger trees, brushing and clearing within a right-of-way, for safety purposes; or c) the alteration and/ or removal is required to mitigate the impact of windthrow.
Applies:	NO
How Result or Strategy Applies to the Site (or Rationale if it does not apply)	No Black Bear Dens were identified within the proposed harvest opening during the completion of the CFI survey, field engineering or collection of data for this Site Plan; therefore, the result or strategy does not apply.

STOCKING REQUIREMENTS

SU	NAR	STANDARDS ID #	OTHER PERFORMANCE STANDARDS
1	17.6	1039575	Sitka Spruce: On marginal sites: CHWwh1 01s, where Ss is accepted, it will only be accepted to a maximum of 50% of the minimum stocking density. Furthermore, on these sites, Ss will be limited in terms of its acceptance at regen and Free-Growing to microsites that are medium or better, in terms of productivity (Soil Nutrient Regimes C-E). Sitka spruce will be targeted on elevated and productive microsites. In terms of elevation, Ss will be focused on lower elevation sites (especially in the MH subzone) and planted within the applicable elevation range for the stock.yLodgepole Pine: On marginal sites: CHWwh1 01s where Plc is accepted, it will only be accepted to a maximum of 50% of the minimum stocking density. Furthermore, on these sites, Plc will be limited in terms of its acceptance at regen and Free-Growing to microsites that are medium or poorer, in terms of productivity (Soil Nutrient Regimes A-C). Lodgepole pine will be targeted on depressional, folisolic and other poor productivity microsites. yNatural red alder ingress will be defaulted to a preferred species on all sites within 3 metres of any stream banks where harvesting is permissible.
COMMENTS	As outlined in Section 7 (3) of the Haida Gwaii Land Use Objectives Order and the Haida Gwaii Approved FSP Section 6.11, where the pre-harvest composition of Western red cedar and Yellow cedar is greater than 20% in the total harvest area, regeneration efforts must ensure adequate composition of these species following harvest. Block SKI537 has less than 1% Cw/Yc composition based on sph, not including dead potential or dead useless, as per Section 6.11 of the approved FSP. Therefore, Section 7(3) of LUO does not apply for block SKI537. Planting SU1 (17.62 ha) - 01 Site Series: Ss = 1000 stems/ha (17,620 stems total) Density: 1000 stems/ha Season: Spring/Fall The stocking standard selected is based on the dominant site series for the CWHwh1 biogeoclimatic subzone. Hemlock naturals are expected to regenerate from low to moderate levels following harvest within the block. A site preparation treatment is not expected to be required. If planting is not prompt or stock failures occur and competing vegetation has time to establish, a manual treatment may be undertaken prior to planting.		

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2016 03 15	YES

RPF PRINTED NAME	RPF'S SIGNATURE and SEAL
Nick Reinhardt	 <div>Digitally signed by G. Nick Reinhardt DN: cn=G. Nick Reinhardt, o=Chartwell Consultants Ltd, ou=RPF# 4830, email=nreinhardt@chartwell-consultants.com, c=CA Location: North Vancouver Date: 2016.03.15 14:58:08 -07'00'</div>
DATE SIGNED	
2016/03/15	
I certify that the work described herein fulfils standards expected of a member of the Association of British Columbia Forest Professionals, and that I did personally supervise the work.	

Map attached forms an integral part of the site plan.

SUPPORT DOCUMENT

ORIGINAL

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
A93566	-	SKI537	BB3YM		A	Skidegate Lake	53 07 26 / 131 52 56

ASSESSMENTS

VISUAL IMPACT ASSESSMENT INFORMATION
There are no established Visual Quality Objectives (eVQO) in the planned harvest area.
PEST INCIDENCE SURVEY INFORMATION
Pest Specific Comments
Pest Code: AD Common Name: Deer Browse Percent Stand(s) Affected within the Block - Pre-harvest: 0% Post-harvest: 10%
Forest Health Comments
Damage Code: NW Name: Windthrow Percent Stand Affected Within the Block - Pre-harvest: <10% Post-harvest: 5-15%
Damage Code: DMH Name: Hemlock dwarf mistletoe Percent Stand Affected Within the Block - Pre-harvest: <25% Post-harvest <10% Any hemlock advanced regeneration >3m should be cut.
ARCHAEOLOGICAL IMPACT ASSESSMENT INFORMATION
In order to adequately manage and conserve cultural resource values and features, a Cultural Feature Identification (CFI) survey was completed by accredited surveyor Nick Reinhardt, RPF on January 6th, 2016. No features were identified during the survey. A Cultural Values Map supplied by the CHN has revealed no known occurrences of cultural features relative to this block. The discovery of previously unidentified culturally heritage or archaeological features must be immediately reported to the District Manager and the Council of the Haida Nation (CHN). All forest development activities will be halted or modified to the extent necessary to protect the discovered feature(s)
TERRAIN STABILITY FIELD AND GULLY ASSESSMENTS INFORMATION
Terrain Stability Comments
No indicators of slope instability were noted during block engineering or collection of data for this site plan, and a Terrain Stability Hazard Assessment was not undertaken.
Gully Comments
A 300m+ section of Stream A is within Block SKI537. Approximately 80m of this channel forms an incised gully. A gully assessment was made by using the Gully Assessment Procedure Guide. Indications are that the Headwall failure potential is Low, the sidewall failure potential is Low, and the Debris Flow initiation hazard is low. The harvesting management strategy is to clearcut and leave non merchantable vegetation where safe and operationally feasible. It is anticipated that trees within and adjacent to the gully will need to be directionally hand felled for safety purposes. After harvesting is completed, remove all CWD >15cm dbh and material that could alter stream morphology or flow.
VEGETATION
☐ SU1: CWHwh1 (01) Severity Rating: Medium Anticipated Vegetation Complex: (4) Salal Salal Cover and Average Height (m): <15% - 0.3m height

RIPARIAN ASSESSMENTS
Management Strategies
<p>Type I Fish Habitat: Baxter Creek and Stream B&C are all classified as Type I fish habitat, as per Section 10 of the LUO. A no-harvest zone of 2.0 tree length (80.0m for the 01 mature site series) has been established under Section 10(3) of the LUO.</p> <p>Tree heights were selected using the dominant site series of the block (CWHwh1 - 01 - young/mature).</p> <p>Type II Fish Habitat: Streams B and C have a section classified as Type II fish habitat, as per Section 11 of the LUO. A no-harvest zone of 1.0 tree length (40.0m) and a management zone of 0.5 tree length (20.0m) has been established on either side of each stream, as per Schedule 5 (CWHwh1 - 01 site series - young/mature) of the LUO.</p> <p>Active Fluvial Units: There are no Active Fluvial Units occurring within, or adjacent to this block.</p> <p>Upland Stream Areas: There is one upland streams; stream A, that exists immediately adjacent and within Block SKI537. A 300m+ section of Stream A is within Block SKI537. Approximately 80m of this channel forms an incised gully. A gully assessment was made by using the Gully Assessment Procedure Guide. Indications are that the Headwall failure potential is Low, the sidewall failure potential is Low, and the Debris Flow initiation hazard is low. The harvesting management strategy is to clearcut and leave non merchantable vegetation where safe and operationally feasible. It is anticipated that trees within and adjacent to the gully will need to be directionally hand felled for safety purposes. After harvesting is completed, remove all CWD >15cm dbh and material that could alter stream morphology or flow.</p>

Riparian I.D. and Class	RMA	SU	WIDTH (m)	BA or SPH Retained	Comments (Indicate if in a Community Watershed)
B S4	RMZ		20.0		This section of stream B is classified as Type II fish habitat. A 20.0m management zone has been maintained on this stream. No harvesting will occur within this RMZ as part of this Site Plan.
	RRZ		40.0		This section of stream B is classified as Type II fish habitat. A 40.0m reserve zone has been maintained on this stream. No harvesting will occur within this RRZ as part of this Site Plan.
B S3	RRZ		80.0		Stream B is classified as Type I fish habitat. A 80.0m reserve zone has been maintained on this stream. No harvesting will occur within this RRZ as part of this Site Plan.
C S4	RMZ		20.0		This section of Stream C is classified as Type II fish habitat. A 20.0m management zone has been maintained on this stream. No harvesting will occur within this RMZ as part of the Site Plan.
	RRZ		40.0		This section of Stream C is classified as Type II fish habitat. A 40.0m reserve zone has been maintained on this stream. No harvesting will occur within this RRZ as part of the Site Plan.
C S3	RRZ		80.0		This section of Stream C has been classified as Type I fish habitat as defined by the LUO. A 80m RRZ has been maintained on the stream. 0.78 ha of the reserve zone is planned to be disturbed as part of the road construction of SPUR 30C-1. Fall away, yard away whenever possible.
Baxter Creek S2	RRZ		80.0		Baxter Creek is classified as Type I fish habitat. A 80.0m reserve zone has been maintained on this stream. No harvesting will occur within this RRZ as part of this Site Plan.
A S6	MFZ		10.0		Stream A is an upland stream. A Machine Free Zone (MFZ) has been hung along the edge of Stream A. Where a machine cannot reach timber located with the MFZ, it should be hand felled.
NCD1 NCD	MFZ		10.0		A Machine Free Zone (MFZ) has been hung along the edge of NCD1. Where a machine cannot reach timber located with the MFZ, it should be hand felled.

SOIL ASSESSMENT							
HAZARD RATINGS				SOIL CHARACTERISTICS			
SU	Soil Comp	Soil Erosion	Soil Disp	Depth To Unfavourable Subsoil		Type of Unfavourable Subsoil	Sediment Delivery Risk (Community Watersheds)
				Min(cm)	Max(cm)		
1	M	H	L	200.0	400.0	R	

COMMENTS
<p>Soil disturbance limits are 5% based on a majority of the block being comprised of sensitive soils.</p> <p>Permanent Access Structure Calculation</p> <p>Standard Unit 1:</p> <p>Spur 30C-1 (New construction) - 790m*10m = 0.79ha Spur 30C-1 (Existing) - 92m*15m = 0.14ha Spur 3C-2 - 228m*10m = 0.23ha Landings (3) - 20m*20m = 0.12ha</p> <p>Total = 1.3ha</p> <p>Block total --> 1.3ha / 35.1ha = 3.7%</p> <p>The total area in permanent access structures is equal to 3.7% of the TAUP and is within the maximum allowable limit of 7%.</p>

RESERVE / RETENTION INFORMATION

WTRA / WTP (INSIDE OR ATTRIBUTED TO THE BLOCK)						
I.D.#	Area	Description				
WTRA	16.1	<p>The WTRA meets the legal requirement for establishing Wildlife Tree Retention (WTRA), as per Section 7 of the LUO. The total area established as WTRA for this block is 16.1ha which is equal to 45.9% of the TAUP. The WTRA is structurally and ecologically similar to the preharvest condition of the proposed harvest opening and is spatially adjacent to the block.</p> <p>The coarse woody debris for the WTRA is approximately 150 stems/ha. The snag composition of the WTRA is approximately 100 stems/ha (based on the cruise compilation for the harvest unit), and will contribute to coarse woody debris management targets.</p>				
OTHER RESERVE AREAS (INSIDE OR ATTRIBUTED TO THE BLOCK)						
I.D.#	Area	Description				
RET	0.1	Retention patch A encompasses a wet, water receiving site that flows into NCD1. Fall away, yard away where practicable.				
GROUP WTRA / WTP AND SITE DEG. CALCULATION (to be retained on the first block of the Permit only)						
Block	Gross Cutblock Area	WTRA / WTP	%	BEC	Perm Access	%
SB7800_FLTC_ROW	0.0	0.0	0.0		0.0	0.0
SKI506	11.4	0.9	8.0	CWH/wh/1	0.7	6.1
SKI510	16.8	11.5	68.0	CWH/wh/1	0.6	3.6
SKI510_TFL_ROW	0.0	0.0	0.0		0.0	0.0
SKI521	7.4	4.3	57.8	CWH/wh/1	0.2	2.7
SKI535	16.4	3.6	21.6	CWH/wh/1	0.5	3.0
SKI536	28.9	6.4	22.1	CWH/wh/1	1.6	5.5
SKI537	35.1	16.1	45.9	CWH/wh/1	1.3	3.7
Total # of Blocks: 8	116.1	42.7	36.8		4.9	4.2

SUPPORTING INFORMATION

HLP/FSP CONSIDERATIONS
Wildlife/Endangered Species Comments
<p>No Species At Risk (SAR) were observed within the block during field engineering or while collecting data for the preparation of this Site Plan. A review of the Conservation Data Center and the BC Ecosystems Explorer revealed that no SAR polygons overlapped this block.</p> <p>Marbled Murrelet (MAMU) Nesting Habitat: The Zimmfor analysis - September 2015, shows the MAMU Nesting Habitat Requirement for the TSA as being in a 33ha deficit for the Skidegate Lake Landscape Unit. However, there is no MAMU habitat, as identified under Schedule 9 of the LUO, that is within or adjacent to the development area. In addition, the forest composition within the proposed development area does not meet the qualifications as MAMU habitat.</p> <p>Northern Saw-whet Owl Nesting Habitat: No Northern Saw-whet Owl Nesting Habitat, as identified in Section 22 of the Haida Gwaii LUO, was found within, or nearby the proposed harvest opening.</p> <p>Northern Goshawk Habitat: No Northern Goshawk Habitat, as identified in Section 20 and Schedule 12 of the Haida Gwaii LUO, was found within, or nearby the proposed harvest opening.</p> <p>Great Blue Heron Nesting Habitat: No Great Blue Heron Nesting Habitat, was observed within this opening.</p> <p>Black Bear Dens: No Black Bear Dens were identified within, or adjacent to this block during the completion of the CFI, field engineering, or collection of data for this Site Plan.</p> <p>No other mapped known locations of species and ecological communities at risk within or immediately adjacent to this block, as per the 'Conservation Data Center' database (http://www.env.gov.bc.ca/cdc/), were identified as of the date of this Site Plan. No SAR, as per the 'BC Species and Ecosystems Explorer' website (http://www.env.gov.bc.ca/atrisk/toolintro.html) and the Chinook Business Area SAR list, were observed within the proposed opening during field engineering or while collecting data for the preparation of this Site Plan.</p>
Range Comments
N/A
Fisheries Comments
<p>Type I Fish Habitat: Baxter Creek and Streams B and C are classified as Type I fish habitat, as per Section 10 of the LUO. A no-harvest zone of 2.0 tree length (60.0m for the 01 site series) has been established under Section 10(3) of the LUO.</p> <p>Tree heights were selected using the dominant site series of the block (CWHwh1 - 01 - young/mature) and the tree-heights established in Schedule 5 of the LUO.</p> <p>Type II Fish Habitat: Streams B and C have a segment that is classified as Type II fish habitat, as per Section 11 of the LUO. A no-harvest zone of 1.0 tree length (40.0m) and a management zone of 0.5 tree length (20.0m) have been established on either side of the stream, as per Schedule 5 (CWHwh1 - 01 site series - young/mature) of the LUO.</p> <p>Active Fluvial Units: There are no active fluvial units occurring with, or adjacent to this block.</p> <p>Upland Stream Areas: Stream A is an upland stream that begins on the eastern block edge the and flows west towards and into Baxter Creek. A Machine Free Zone (MFZ) has been hung 5m off the stream, along both sides of the stream bank. Where a machine cannot reach timber located within the MFZ, it should be hand felled. A designated crossing has been mapped and marked in the field to help retain overall channel and stream bank stability. Where possible, retain non-merchantable timber within the MFZ. A 300m+ section of Stream A is within Block SKI537. Approximately 80m of this channel forms an incised gully. A gully assessment was made by using the Gully Assessment Procedure Guide</p> <p>Riparian Features Classified by FPPR: NCD 1 does not meet the definition of Type I fish habitat, or Type II fish habitat; therefore, has been managed for in accordance with the FPPR requirements for which there are no restrictions within the riparian area. A Machine Free Zone (MFZ) has been hung at 5m along both sides of NCD1 within the block. Where a machine cannot reach timber located with the MFZ, it should be hand felled.</p>
Watersheds/Hydro Assessments Comments
<p>In order to demonstrate compliance with Section 14 of the Haida Gwaii Land Use Objectives Order (Section 6.30, FSP), a watershed analysis is required to show that greater than 80% of the applicable watershed unit is maintained. This analysis has occurred (Miranda Hawryluk - CCL; January, 2016).</p> <p>The planned harvest area in the Baxter Creek Sensitive Watershed is 100.3ha (SKI506-10.5ha, SKI510-5.4ha, SKI521-3.1ha, SKI22-12.2ha, SKI535-12.9ha, SKI563-22.5ha, SKI537-18.9, and SKIA450 14.8ha). The total area of this subunit is 2,222.5ha, of which, 1,999.1ha is hydrologically recovered. This means that the maximum amount of harvestable area in this watershed is 218.9ha (20% of the total area minus the previous unrecovered area).</p> <p>The expected hydrologically recovered area within this watershed following harvest of this block is equal to 85.4% (1999.1ha - 100.3ha/2222.5ha) and is greater than the 80% minimum allowed for sensitive watershed areas, as per Section 14 of the LUO and is therefore consistent with Section 6.30 of the FSP.</p> <p>However, in compliance with Section 14 (6.30 FSP) of HGLUOO, a watershed >500ha may only be harvested at a rate of 5% of the total watershed area over a 5 year period. Therefore, the current 5 year period allows for a rate of 111.8ha, bringing the total area remaining for this period is to 11.5ha (111.8ha - 100.3ha).</p> <p>Rates of harvest will be reported in the FSP Group Ledger.</p> <p>In order to demonstrate compliance with Section 13 of the Haida Gwaii Land Use Objectives Order, a watershed analysis is required to show that greater than 70% of the applicable Upland Stream Area is recovered. This analysis has occurred (Miranda Hawryluk - CCL; December, 2016).</p> <p>The planned harvest area in watershed sub-unit #397 is 48.1ha (SKI506-1.7ha, SKI510-5.4ha, SKI535-7.3ha, SKI537-18.9ha and SKIA450-14.8ha). The total upland stream area of this sub-unit is 507.0 ha, of which, 439.8 ha is hydrologically recovered. This means that the maximum amount of harvestable area in this sub-unit is 84.9ha (30% of the total upland stream area minus the previous unrecovered area).</p> <p>The expected hydrologically recovered area within this sub-unit following harvest of this block is equal to 77.3% (439.8ha - 48.1ha)/507.0ha and is greater than the 70% minimum allowed for upland stream areas, as per Section 13(1) of the LUO.</p> <p>Proportionate to other licensees in the area, BCTS will have -11.6 ha of available harvest area after accounting for the 48.1 ha planned for all proposed blocks. The additional 11.6 ha will come out of the other plan holders apportionment.</p> <p>Rates of harvest will be reported in the FSP Group Ledger.</p>
Sensitive Areas Comments

<p>Expect soils located on receiving sites to become saturated during prolonged periods of rainfall.</p> <p>Ground based harvesting throughout the block will avoid saturated conditions that cause excessive rutting or compaction. If rubber tired skidders are used, they must use designated trails to reduce excessive soil compaction. If rutting and/or displacement of the forest floor occurs, machine operations will stop immediately until a suitable strategy (i.e the use of matting or puncheon) is applied or until conditions improve.</p> <p>The BCTS Wet Weather Safety Shutdown Guidelines for the Chinook Business Area will apply to this block. All operations should cease immediately if the operational limits for rainfall is exceeded.</p>
<p>Recreation Comments</p>
<p>No designated recreation sites or trails are found within or immediately adjacent to the proposed harvest area of this block.</p>
<p>Cultural Heritage Comments</p>
<p>In order to adequately manage and conserve cultural resource values and features, a Cultural Feature Identification (CFI) survey was completed by accredited surveyor Nick Reinhardt, RPF on January 6th, 2016.</p> <p>No Haida Traditional Heritage Features were identified during the survey.</p> <p>Several occurrences of Class 3 Haida Traditional Forest Features were identified in the CFI survey. These included but are not limited to: Skunk Cabbage, Snake liverwort, licorice fern, and sword fern.</p> <p>Cedar Stewardship Areas: This block is not located within, or adjacent to a Cedar Stewardship Area.</p> <p>A Cultural Values Map supplied by the CHN has revealed no known occurrences of cultural features relative to this block.</p> <p>The discovery of previously unidentified culturally heritage or archaeological features must be immediately reported to the District Manager and the Council of the Haida Nation (CHN). All forest development activities will be halted or modified to the extent necessary to protect the discovered feature(s).</p>
<p>Biodiversity Emphasis/L.U. Comments</p>
<p>This block is 35.1ha TAUP, and the combined composition of Cw, as outlined in the timber cruise compilation, is equal to <10%; therefore, the block retention requirement for this block does not apply, pursuant to Section 7 of the LUO.</p> <p>There is 16.1ha of WTRA that is equal to 46% of the TAUP established adjacent to the block boundary. The WTRA is ecologically and structurally similar to the preharvest condition of the block</p> <p>Western Red Cedar and Yellow Cedar Retention: Due to the low Cedar compistion within the block, the retention requirement and cedar regeneration commitment as described in Section 7 of the LUO will be not be required.</p> <p>Western Yew: There were no Western Yew identified within or adjacent to this block.</p> <p>Forested Swamps: There are no forested swamps within or adjacent to this block.</p> <p>Objectives for Ecological Representation: This block is located within the Skidegate Lake Landscape Unit and the CWHwh1 (01) biogeoclimatic subzone and site series. The Old Forest Target for stands within this Landscape unit is 3147.0 ha as outlined in Schedule 10 of the Haida Gwaii Land Use Objectives Order. The analysis recently completed by Zimmfor Management Services Ltd. indicates that 2,432ha of Old Forest currently exists within reserve. A total of 715ha is required to meet the target set in the LUO. Within the TSA, there is 130ha of Old forests that exists outside reserves.</p> <p>Within the TSA, 130ha of CWHhw1(01) Old Forests exists. A total of 36ha of Old Forests within the TSA is required to be retained to meet LUO targets. BCTS's proportional share of this deficit is 15.48ha. This deficit has been retained as part of the WTRA associated with TSL A93565.</p> <p>Block SKI537 is characterized by 2nd growth timber, and the harvesting of these areas will not impact the amount of existing Old Forest within the Skidegate Landscape Unit and the CWHwh1 (01) biogeoclimatic subzone and site series. Additionally, no Old Forests exist adjacent to the block that would contribute to meeting the LUO targets. However, the 16.1ha WTRA established adjacent to this block encompasses 2nd growth forest that may contribute to the LUO targets in the long term.</p> <p>Retained area's contributing to Eco Rep will be reported in the group ledger.</p> <p>Red-Listed and Blue-Listed Ecological Communities: No occurrences of red or blue listed ecological communities were observed within this opening.</p> <p>Forest Reserves: This block is not located within an identified Forest Reserve polygon.</p>
<p>Other Resources Comments</p>
<p>Windthrow: A majority of this block has a low to moderate windthrow risk rating. Some small sections, including the down wind edges of the retention areas, have a high risk rating. Segments (FC 1-10) are perpendicular to prevailing winds on the upwind direction and the overall windthrow risk is high due to the high stand density along stream reserve zones. Ret. Patch A is poorly adapted for high wind events.</p> <p>Block engineering has been conducted in a manner to mitigate against windthrow by orienting the bulk of the boundary to be parallel or leeward of the prevailing wind directions, while removing larger stems that appear to lack in wind firmness.</p>
<p>ADDITIONAL COMMENTS:</p>

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2016 03 15	YES

HARVEST PLAN

ORIGINAL

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
A93566	-	SKI537	BB3YM		A	Skidegate Lake	53 07 26 / 131 52 56

SILVICULTURE SYSTEMS

SU	SYSTEM	VARIANT	PHASE	RESERVE	Min BA (m2/ha)	Min Residual Density (sph)
1	CCRES			G		
Current Stand Structure/Site Conditions			Standard Unit 1 is 17.6ha NAR and is characteristic of the mature 01site series within the CWHwh1 biogeoclimatic subzone. The preharvest stand is dominated by Sitka spruce and Western hemlock. The understory vegetation is sparse and features mostly Vaccinium spp and Salal. The herbaceous cover is sparse with mosses being the dominant cover. The overall site is located on moderate to well drained soils on moderately slopping terrain. The topography is characterized with slopes ranging between 0-40%, and the average elevation is ~170m			
Silviculture Systems SU Comments						
Min. Characteristics of Leave Trees (Form, Health, Vigour)			The total area established as WTRA for this block is 16.1ha which is equal to 45.8% of the TAUP. The WTRA is structurally and ecologically similar to the preharvest condition of the proposed harvest opening and is spatially adjacent to the block as it encompasses Type I fish habitat of Baxter Creek. The coarse woody debris for the WTRA is approximately 150stems/ha and composed of small, stem exluded material. The snag composition of the WTRA is approximately 100 stems/ha (based on the cruise compilation for the harvest unit), and will contribute to coarse woody debris management targets.			

Additional Comments

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SOIL ASSESSMENT											
SU	HAZARD RATINGS			SOIL DISTURBANCE				SOIL CHARACTERISTICS			
	Soil Comp.	Soil Erosion	Soil Disp.	Max Allow Soil Dist %	Max Allow Max Amount TAS may exceed MASD prior	Max Allow Perm Access Structures %	MASD for Roadside work areas %	Depth to Unfavorable Subsoil		Type of Unfavorable Subsoil	Sediment Delivery Risk (Comm. Watershed)
								Min (cm)	Max (cm)		
1	M	H	L	5.0		7.0	25.0	200.0	400.0	Bedrock	
SU	Critical site conditions that affect the timing of operations and how they affect the timing										
1	Expect soils located on receiving sites to become saturated during prolonged periods of rainfall. Ground based harvesting throughout the block will avoid saturated conditions that cause excessive rutting or compaction. If rubber tired skidders are used, they must use designated trails to reduce excessive soil compaction. If rutting and/or displacement of the forest floor occurs, machine operations will stop immediately until a suitable strategy (i.e the use of matting or puncheon) is applied or until conditions improve. The BCTS Wet Weather Safety Shutdown Guidelines for the Chinook Business Area will apply to this block. All operations should cease immediately if the operational limits for rainfall is exceeded.										

SU MANAGEMENT COMMENTS	
SU	SU Description
1	Standard Unit 1 is 17.6ha NAR characteristic of CWHwh1 biogeoclimatic subzone and is predominantly composed of the mature 01 site series. The preharvest stand is dominated by Sitka spruce and Western hemlock. The understory vegetation is generally sparse, featuring mostly Vaccinium spp and Salal. The herbaceous cover is sparse with mosses being the dominant cover. The overall site is located on moderate to well drained soils on moderately slopping terrain. The topography is characterized with slopes ranging between 0-40%, and the average elevation is ~170m

SOIL MANAGEMENT COMMENTS	
Soil Conservation	
Soil disturbance limits are 5% based on a majority of the block being comprised of sensitive soils.	
Permanent Access Structure Calculation	
Standard Unit 1:	
Spur 30C-1 (New construction) - 790m*10m = 0.79ha Spur 30C-1 (Existing) - 92m*15m = 0.14ha Spur 3C-2 - 228m*10m = 0.23ha Landings (3) - 20m*20m = 0.12ha	
Total = 1.3ha	
Block total --> 1.3ha / 35.1ha = 3.7%	
The total area in permanent access structures is equal to 3.7% of the TAUP and is within the maximum allowable limit of 7%.	
Temporary Access	
Existing old railway grade located in the western corner of Block SKI537, junctioning off road Spur 30C-1 at station 1+342, is 105m in length and currently marked as a trail. Post harvest, the existing grade will need to be rehabilitated and planted.	
Slope Instability	
No indicators of slope instability were noted during block engineering or collection of data for this site plan, and a Terrain Stability Hazard Assessment was not undertaken.	

RIPARIAN ASSESSMENTS					
Management Strategies					
<p>Type I Fish Habitat: Baxter Creek and Stream B&C are all classified as Type I fish habitat, as per Section 10 of the LUO. A no-harvest zone of 2.0 tree length (80.0m for the 01 mature site series) has been established under Section 10(3) of the LUO.</p> <p>Tree heights were selected using the dominant site series of the block (CWHwh1 - 01 - young/mature).</p> <p>Type II Fish Habitat: Streams B and C have a section classified as Type II fish habitat, as per Section 11 of the LUO. A no-harvest zone of 1.0 tree length (40.0m) and a management zone of 0.5 tree length (20.0m) has been established on either side of each stream, as per Schedule 5 (CWHwh1 - 01 site series - young/mature) of the LUO.</p> <p>Active Fluvial Units: There are no Active Fluvial Units occurring within, or adjacent to this block.</p> <p>Upland Stream Areas: There is one upland streams; stream A, that exists immediately adjacent and within Block SKI537. A 300m+ section of Stream A is within Block SKI537. Approximately 80m of this channel forms an incised gully. A gully assessment was made by using the Gully Assessment Procedure Guide. Indications are that the Headwall failure potential is Low, the sidewall failure potential is Low, and the Debris Flow initiation hazard is low. The harvesting management strategy is to clearcut and leave non merchantable vegetation where safe and operationally feasible. It is anticipated that trees within and adjacent to the gully will need to be directionally hand felled for safety purposes. After harvesting is completed, remove all CWD >15cm dbh and material that could alter stream morphology or flow.</p>					
Riparian I.D. and Class	RMA	SU	WIDTH (m)	BA or SPH Retained	Comments (Indicate if in a Community Watershed)
B S4	RMZ		20.0		This section of stream B is classified as Type II fish habitat. A 20.0m management zone has been maintained on this stream. No harvesting will occur within this RMZ as part of this Site Plan.
	RRZ		40.0		This section of stream B is classified as Type II fish habitat. A 40.0m reserve zone has been maintained on this stream. No harvesting will occur within this RRZ as part of this Site Plan.
B S3	RRZ		80.0		Stream B is classified as Type I fish habitat. A 80.0m reserve zone has been maintained on this stream. No harvesting will occur within this RRZ as part of this Site Plan.
C S4	RMZ		20.0		This section of Stream C is classified as Type II fish habitat. A 20.0m management zone has been maintained on this stream. No harvesting will occur within this RMZ as part of the Site Plan.
	RRZ		40.0		This section of Stream C is classified as Type II fish habitat. A 40.0m reserve zone has been maintained on this stream. No harvesting will occur within this RRZ as part of the Site Plan.
C S3	RRZ		80.0		This section of Stream C has been classified as Type I fish habitat as defined by the LUO. A 80m RRZ has been maintained on the stream. 0.78 ha of the reserve zone is planned to be disturbed as part of the road construction of SPUR 30C-1. Fall away, yard away whenever possible.
Baxter Creek S2	RRZ		80.0		Baxter Creek is classified as Type I fish habitat. A 80.0m reserve zone has been maintained on this stream. No harvesting will occur within this RRZ as part of this Site Plan.
A S6	MFZ		10.0		Stream A is an upland stream. A Machine Free Zone (MFZ) has been hung along the edge of Stream A. Where a machine cannot reach timber located with the MFZ, it should be hand felled.
NCD1 NCD	MFZ		10.0		A Machine Free Zone (MFZ) has been hung along the edge of NCD1. Where a machine cannot reach timber located with the MFZ, it should be hand felled.

COARSE WOODY DEBRIS MANAGEMENT STRATEGY INFORMATION		
The coarse woody debris left within the block must be consistent with Section 68 of the FPPR: a minimum of 4 logs per hectare, each being a minimum of 5 m in length and 30 cm in diameter at one end.		
Performance Std. (%) :	Block Target (%):	Coarse Woody Debris (m3/ha):

DEFINITIONS

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2016 03 15	YES

Print off the PAS/TAS table located as an attachment on the Block Details Screen and attach to this prescription.

RPF PRINTED NAME	RPF'S SIGNATURE and SEAL
Nick Reinhardt	
DATE SIGNED	
2016/03/15	
I certify that the work described herein fulfils standards expected of a member of the Association of British Columbia Forest Professionals, and that I did personally supervise the work.	Digitally signed by G. Nick Reinhardt DN: cn=G. Nick Reinhardt, o=Chartwell Consultants Ltd, ou=RPF# 4830, email=nreinhardt@chartwell-consultants.com, c=CA Location: North Vancouver Date: 2016.03.15 14:58:44 -07'00'

SILVICULTURE PLAN

ORIGINAL

LICENCE #	CP	BLOCK	UBI	OPENING NUMBER	FDU	LOCATION	LATITUDE / LONGITUDE
A93566	-	SKI537	BB3YM		A	Skidegate Lake	53 07 26 / 131 52 56

ECOLOGICAL INFORMATION

SU	Ecology Unit	Area	Zone	Subzone	Variant / Phase	Site Series (series - %)	Elevation Avg (m)	Slope Avg (%)	Aspect	Slope Position	Rooting Depth (cm)	Soil Texture
1	A	17.6	CWH	wh	1	01-100	170	20	SW	Middle Slope		

STOCKING REQUIREMENTS				
ASSESSMENT DATES				
Standard Unit	Standards ID	Regen Delay (yrs)	Freegrow Early (yrs)	Freegrow Late (yrs)
1	1039575	6		20
Min/Max Elevation Regime: 120 / 220				

SU : 1 REGENERATION LAYER									
PREFERRED SPECIES			ACCEPTABLE SPECIES			POST SPACING DENSITY(sph)		MAX CONIFEROUS (sph)	
Species		Min Ht. (m)	Footnotes	Species		Min Ht. (m)	Footnotes	Min	Max
								WELL SPACED TREES (sph)	
Cw	Western Red Cedar	1.2						Target Pref/Acc	Minimum Pref/Acc
Ss	Sitka Spruce	3.0							Minimum Pref
Plc	Lodgepole Pine - Coastal	2.0						900	500
Hw	Western Hemlock	2.0						Height Relative to Competition (%)	
								150	

OTHER REQUIRED STOCKING INFORMATION
As outlined in Section 7 (3) of the Haida Gwaii Land Use Objectives Order and the Haida Gwaii Approved FSP Section 6.11, where the pre-harvest composition of Western red cedar and Yellow cedar is greater than 20% in the total harvest area, regeneration efforts must ensure adequate composition of these species following harvest.
Block SKI537 has less than 1% Cw/Yc composition based on sph, not including dead potential or dead useless, as per Section 6.11 of the approved FSP. Therefore, Section 7(3) of LUO does not apply for block SKI537.
Planting SU1 (17.62 ha) - 01 Site Series: Ss = 1000 stems/ha (17,620 stems total) Density: 1000 stems/ha Season: Spring/Fall
The stocking standard selected is based on the dominant site series for the CWHwh1 biogeoclimatic subzone. Hemlock naturals are expected to regenerate from low to moderate levels following harvest within the block.
A site preparation treatment is not expected to be required. If planting is not prompt or stock failures occur and competing vegetation has time to establish, a manual treatment may be undertaken prior to planting.

ACTIVITIES

PLANTING						
Planting(Container - QCI) 2020/03/01 SEASON:						
AREA	PLANTING UNIT	UNIT AREA	SPECIES	COMMENTS	STEMS / HA	TOTAL STEMS
17.6	1	17.6	Sitka Spruce		1000	17620
	LIMITING FACTORS / COMMENTS					
	As outlined in Section 7 (3) of the Haida Gwaii Land Use Objectives Order and the Haida Gwaii Approved FSP Section 6.11, where the pre-harvest composition of Western red cedar and Yellow cedar is greater than 20% in the total harvest area, regeneration efforts must ensure adequate composition of these species following harvest.					
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A site preparation treatment is not expected to be required. If planting is not prompt or stock failures occur and competing vegetation has time to establish, a manual treatment may be undertaken prior to planting						
SILVICULTURE ACTIVITY COMMENTS						
ACTIVITY			COMMENT			

MANAGEMENT STRATEGY

COARSE WOODY DEBRIS MANAGEMENT STRATEGY INFORMATION		
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Performance Std. (%):	Block Target (%):	Coarse Woody Debris (m3/ha):

ADMINISTRATION

Amendment number	Date Typed (Yr Mo Dy)	Map Required?
ORIGINAL	2016 03 15	YES

RPF PRINTED NAME	RPF'S SIGNATURE and SEAL
Nick Reinhardt	
DATE SIGNED	
2016/03/15	
I certify that the work described herein fulfils standards expected of a member of the Association of British Columbia Forest Professionals, and that I did personally supervise the work.	

Digitally signed by G. Nick Reinhardt
DN: cn=G. Nick Reinhardt, o=Chartwell Consultants Ltd, ou=RPF# 4830, email=nreinhardt@chartwell-consultants.com, c=CA
Location: North Vancouver
Date: 2016.03.15 14:59:08 -07'00'