

TOW006

☒ Site Plan

(Development Areas & Damaged Timber Salvage ≥1ha)

☐ Salvage Plan

(Damaged Timber Salvage <1ha)

A. Tenure Information

☒ Original: 12/15/2014 (mm/dd/yyyy)

Forest Region		Forest District		License	Cutblock or Road ID
Coast		Haida Gwaii		TFL60	TOW006 and all in block road Rd DAT18: 0+276 to 0+750
CP #		Timbermark(s)		Division	Geographic Location
106		60/106		Haida Gwaii	Datlaman/ Towustasin Hill
Authorizing FSP	Approval Date	Expiry Date	Amended Date	FDU	
Haida Gwaii	November 18, 2011	November 18, 2016	As applicable on date of SP	A	
Landscape Unit		Watershed ID		Sub Unit ID #	
Masset Inlet		Towustasin Hill Residual 3		588 & 736	
Silviculture System					
☐ Clearcut ☒ Clearcut w/ Reserve ☐ Retention ☐ Other:					

B. Site Details

SU Description (Site Plan only)			
ID	NAR (ha)	Description (BEC, Site Series, Elevation, Slope position, aspect, etc.)	
1	19.0	<p>CWHwh1- 01₉₀05₅06₅</p> <p>Stand composition/ timber type of the SU is Ss75Hw25 second growth stand (approx. 65yrs) at 915m³/ha. The stand is predominantly 01 leading site series (ss) with minor 05 and 06 site series at the toe of slopes, adjacent to riparian areas and in wet depressions.</p> <p>Humus form is a mor and the LFH is approximately 10-25cm. The Bm layer is >40cm and becomes more compacted as depth increases. A root restricting layer is at approximately 80cm due to compaction (very little rooting beyond this depth). Soil texture is a SiL to SL with 20-40% coarse fragment content consisting mainly of small gravel.</p> <p>The terrain consists of a gentle bench above a break located roughly from FC 4 running east to FC21. Slopes on this broad bench are from 5-15%. The southern boundary from FC8 to FC12 runs up the toe of a slope and timber will be directionally felled into lead.</p> <p>The microtopography is uneven and mounded due to historic windthrow and logging. The elevation ranges from 100m to 180m with a subtle but northern aspect.</p> <p>Understory vegetation is very sparse and consists of: red huckleberry (L), step moss (H), Lanky moss (H) and Oregon beaked moss (H).</p> <p>Site Class II, Site Index 29 (Ss), Severity Code/Vegetation Complex: L, Soil Moisture Regime: 4 and Nutrient Regime: B. Deer browse is expected to be high.</p>	
Stocking Standards (Site Plan only)		Soil Disturbance Limits (Site Plan only)	
SU	Stocking Standard ID#	Maximum Allowable Soil Disturbance within the NAR	Maximum Extent Soil Disturbance may be Temporarily Exceeded
1	1039574	5%	5%
Maximum allowable soil disturbance within NAR for roadside work area: 25%			
Special Forest Products Stocking Standards rationale: N/A			
Single Entry Dispersed Retention System Stocking Standards: (maximum level permitted is 10% of AAC each year): N/A			

TOW006

C. FSP Results & Strategies				
Results and Strategies Applicable to the Site (for amendments, the listed R/S apply only to the amended areas, unless otherwise stated. Refer to the original SP/ Salvage Plan to see how the R/S apply to the original harvest area).				
R/S ID#	R/S Title	Applicable (Y/N)		How Results or Strategies apply to the site (include rationale for not applicable, where required.)
Cedar Stewardship Areas (CSA)				
6.1	no harvesting	☐ Y	☒ N	There are no CSAs adjacent to the block.
6.2, a-d	harvesting with limitations	☐ Y	☒ N	<p>If harvesting is proposed within a CSA, R/S 6.2 a through e must be addressed.</p> <p>☐ a. intergovernmental process completed by group Plan Holders; and</p> <p>☐ b. proposed harvesting is <10% of total and <250ha in 10 years; and</p> <p>☐ c. proposed harvesting is proportional across LUs; and</p> <p>☐ d. group ledger reviewed (updated annually minimum).</p> <p>Not applicable (see 6.1)</p>
6.2e	consultation with adjacent tenure holders	☐ Y	☒ N	<p>Where CSAs overlap adjacent tenures outside of the plan area, consultation is required to ensure harvest limits are not exceeded.</p> <p>Not applicable (see 6.1)</p>
Cultural Feature Identification				
6.3 and 6.4a	Cultural Feature Identification Survey	☒ Y	☐ N	<p>Required prior to commencing harvesting or road construction activities in a development area.</p> <p>A Cultural Features Identification Survey was completed for TOW006 with field work completed on Oct 26, 2014 by James Hageman, Guy Lawson and Doug White. The report identified the following:</p> <p>HTHFs: None</p> <p>HTFFs:</p> <p>Class 1: None</p> <p>Class 2: Yellow Pond Lily</p> <p>Class 3: Bracken Fern, Old man's beard, Oregon beaked-moss, Oval-leaved blueberry, Running club-moss and Snake liverwort</p> <p>CMTs: None</p> <p>Monumental Cedar</p> <p><120cm dbh: None</p> <p>>120cm dbh: None</p> <p>Cultural cedar stands: None</p> <p>Yew Patches/Stems: None / None</p>
Haida Traditional Heritage Feature (HF)				
6.4b, c	potential HF – AIA required	☐ Y	☒ N	<p>☐ b. AIA completed; and</p> <p>☐ c. HF confirmed to be present and of continued importance</p> <p>Refer to R/S 6.5 and 6.6 for applicable requirements/ management requirements.</p> <p>No Traditional Heritage Features were found</p>
6.5	Class 1 HF – 500m no harvest zone	☐ Y	☒ N	Not applicable (see 6.4)

TOW006

6.5, a-b	Class 1 HF – reduction to no harvest zone	☐ Y	☒ N	☐ a. Intergovernmental Process required. Reduction required for road access, other infrastructure, or to address a safety concern and no other practicable option exists; or ☐ b. Reduction up to 0.5 tree lengths, provided no net loss. Not applicable (see 6.4)
6.6	Class 2 HF – 100m (avg. width) no harvest zone	☐ Y	☒ N	Where a Class 2 HTHF Karst Feature is identified, R/S 6.79 also applies. Not applicable (see 6.4)
6.6, a-b	Class 2 HF – alteration, removal or reduction to no harvest zone	☐ Y	☒ N	☐ a. Intergovernmental Process completed. Reduction required for road access, other infrastructure, or to address a safety concern and no other practicable option exists; or ☐ b. reduction up to 0.5 tree lengths provided no net loss. Not applicable (see 6.4)
Haida Traditional Forest Features (FF)				
6.7	Class 1 FF – 1.0 tree length (avg. width) no harvest zone	☐ Y	☒ N	No class 1 traditional forest features were found.
6.7	Class 1 FF – 1.0 tree length (avg. width) management zone	☐ Y	☒ N	Not applicable (see 6.7)
6.7a	Class 1 FF – reductions to management zone	☐ Y	☒ N	☐ a. up to 0.5 tree lengths, provided no net loss; or ☐ b. Intergovernmental Process required. Reduction required for road access, other infrastructure, or to address a safety concern and no other practicable option exists. Integrity of the FF must be maintained. Not applicable (see 6.7)
6.8	Class 2 FF – retain >50% and maintain integrity	☒ Y	☐ N	Focus stand level retention areas on Class 2 FF, adjust operational boundaries or consider modifying harvest practices in the vicinity to protect integrity. Yellow pond lily was located within the block and is retained within a small wetland at FC A1.
6.9	Class 3 FF – retain and protect to extent practicable	☒ Y	☐ N	Where practicable, focus stand level retention on Class 3 FF. Six types of class 3 forest features were found during the CFI survey: Bracken Fern, Old man's beard, Oregon beaked-moss, Oval-leaved blueberry, Running club-moss and Snake liverwort. The species are also found within the WTRA, retention and LUO reserves associated with the block.
Cedar Retention				
6.10, (i), (ii)	cedar retention required	☐ Y	☒ N	Where development areas are calculated per the FSP to be: ☐ (i) >10ha, pre-harvest cedar >30%; or ☐ (ii) ≤10ha, pre-harvest cedar >60% If (i) or (ii) applies, then refer to 6.10 a through d. The harvest area is a second growth SsHw stand with no cedar content recorded.
6.10, a-d	retain 15% cedar composition	☐ Y	☒ N	☐ a. Prioritize allocation of retention requirements to no harvest zones, management zones and stand level retention areas designated for other objectives ☐ b. Additional areas are required beyond existing no harvest zones to meet the 15% requirement (if yes, refer to 6.10c and d). ☐ c. Minimum patch size is 1.0ha. Where practicable, cedar areas are large and contiguous. ☐ d. retain a range of pre-harvest diameters. Not applicable (refer to 6.10)

TOW006

6.11	cedar regeneration – pre-harvest cedar >20%	☐ Y	☒ N	<p>Pre-Harvest cedar is calculated using cruise compilation measured in percent of cedar sph, not including dead potential or dead useless. Where pre-harvest composition is >20%, the following regeneration strategies apply:</p> <p>☐ Minimum post harvest cedar composition is based on the pre-harvest composition as calculated according to the FSP.</p> <p>☐ a. strive to meet commitment through natural regen or planting</p> <p>☐ b. Where deer browse hazard is mod-high, planted cedar will be protected</p> <p>☐ c, d, e. these requirements are not applicable at the SP level, they refer to regeneration criteria, due dates, fill plant requirements, etc.</p> <p>Not applicable (refer to 6.10)</p>
6.12	cedar regeneration – pre-harvest cedar >20%	☐ Y	☒ N	<p>The cedar regeneration thresholds may be lower than those established in R/S 6.11 Table 9, provided the new requirement is consistent with the outcome of a completed intergovernmental process.</p> <p>The harvest area is a second growth SsHw stand with no cedar content recorded in the cruise.</p>
6.13	yew patches - stand level retention	☐ Y	☒ N	No yew patches were noted within the CFI survey.
6.13a	yew patches - reduced retention rationale	☐ Y	☒ N	<p>Alteration or removal is permitted to accommodate operational requirements for road and bridge construction and no practicable alternative exists.</p> <p>Not applicable (refer to 6.13)</p>
6.14	yew (not patches) – stand level retention	☐ Y	☒ N	<p>Incorporate retention of yew (not in patches) into existing retention areas, where practicable.</p> <p>Not applicable (refer to 6.13)</p>

Cultural Cedar Stands, CMTs & Monumental Cedar

6.15	0.5 tree length no harvest zone	☐ Y	☒ N	This result or strategy does not apply as no Cultural Cedar Stands, CMTs & Monumental Cedar were identified within the stand.
6.15b	reduction to no harvest zone	☐ Y	☒ N	<p>Intergovernmental Process required. Reduction required for road access, other infrastructure, or to address a safety concern and no other practicable option exists. Integrity of the cultural cedar stand, CMT or monumental cedar must be maintained.</p> <p>Not applicable (refer to 6.15)</p>
6.15	1.0 tree length (avg. width) management zone	☐ Y	☒ N	Not applicable (refer to 6.15)
6.15a	alteration or removal of cultural cedar stand, CMT or monumental cedar	☐ Y	☒ N	<p>Intergovernmental Process required. Reduction required for road access, other infrastructure, or to address a safety concern and no other practicable option exists. Logs must be provided to the Haida Nation.</p> <p>Not applicable (refer to 6.15)</p>
6.15c	reduction to management zone	☐ Y	☒ N	<p>Intergovernmental Process required. Reduction is required to address operational constraints or a safety concern. Integrity of the management zone must be maintained.</p> <p>Not applicable (refer to 6.15)</p>
6.16, a-b	Monumental Cedar <120cm not within cultural cedar stand –removal	☐ Y	☒ N	<p>☐ If removal is planned, the greater of 10% (measured in stems per hectare) or one monumental cedar must be retained in the development area.</p> <p>☐ a. Intergovernmental Process is completed and confirms not required for cultural use; or</p> <p>☐ b. Intergovernmental Process completed. Reduction required for road access, other infrastructure, or to address a safety concern. Logs must be offered to the Haida Nation or other special measures may be identified though the IGP</p> <p>Not applicable (refer to 6.15)</p>

Type I Fish Habitat

TOW006

6.17	2.0 tree length no harvest zone	☐ Y	☒ N	There are no Type I streams associated with or immediately adjacent to the development area.
6.17a, b (i-iii)	alteration or removal of no harvest zone	☐ Y	☒ N	☐ a. +/- 0.5 tree length provided no net loss ☐ b. up to 5% alteration or removal: ☐ (i)-(ii) provided maintain the integrity of the Type I fish habitat and alteration or removal is required for road or bridge construction or to address a safety concern and no other practicable option exists; or ☐ (iii) alteration or removal is for other reason than those listed under 6.16b(i) and Intergovernmental Process completed. Not applicable (refer to 6.17)
Type II Fish Habitat				
6.18	1.0 tree length no harvest zone	☒ Y	☐ N	Two (2) type II streams are located to the west of the block and included within the TAUP being stream 3 and 3Y. Additionally, two more type II streams are located to the north of the block and an additional stream crosses the access road. A no harvest zone (LUO reserve) has been established on the Type II stream using the LUO schedule 5 tree heights of 40m for a zonal (01) site series.
6.18a	up to 5% alteration or removal of no harvest zone	☐ Y	☒ N	Must maintain the integrity of the Type II fish habitat. No alteration or removal is required or planned.
6.18	0.5 tree length (avg. width) management zone	☒ Y	☐ N	A 0.5 TL management zone has been established on the type II streams.
6.18b	up to 20% alteration or removal	☐ Y	☒ N	Percentage removal is to be measures in hectares. No alteration or removal is required or planned.
6.18c	management zone windthrow management	☒ Y	☐ N	Retention of trees in the management zone considers likelihood of damage to no harvest zone caused by windthrow. The 0.5TL management zone was allocated to the type II stream. The location of the stream is windward to the prevailing wind direction and the management zone has been allocated to a windfirm location on the slope break.
6.19 (a-d)	further reductions to combined area of no harvest zone or management zone	☐ Y	☒ N	If further reductions beyond those permitted under 6.17, then Intergovernmental Process is required, the total amount of mature and old forest in the Type II habitat no harvest zone and management zones within the development area is reduced by ≤20% (measured in hectares), the integrity of the Type II habitat is maintained and an adaptive management plan is developed, documented and implemented prior to reducing the no harvest and management zones. No further reductions are needed.
Active Fluvial Units				
6.20	1.5 tree length management zone	☐ Y	☒ N	There are no active fluvial units associated with the development area of TOW006.
6.21	up to 10% alteration or removal of management zone	☐ Y	☒ N	Amount of mature and old forest within the AFU may be reduced by 10% (measured in hectares). Not applicable (refer to 6.17)
6.22 (a, b)	additional 10% alteration or removal of management zone	☐ Y	☒ N	Amount of mature and old forest within the AFU may be reduced by additional 10% (measured in hectares) provided sufficient functional riparian forest is retained to protect the integrity of the AFU and adaptive management plan is developed, documented and implemented prior to reducing the AFU management zone by the additional 10%. Not applicable (refer to 6.17)
Upland Stream Areas				

TOW006

6.24 (a-c)	Plan Holder agreement	☒ Y	☐ N	<p>Prior to development activities within a sub-unit, Plan Holders form an agreement outlining analysis, harvesting allocations and tracking.</p> <p>An agreement (Haida Gwaii Group FSP Implementation Agreement #2, dated March 2014) has been signed-off by the FSP Holders.</p> <p>The development area of TOW006 is within sub-unit 588 and 736 and both are entirely within Taan tenure (TFL 60).</p> <p>Consistent with the Implementation Agreement #2 the Plan Holders agree to apportion the LUO targets, based on their respective operating areas/ AAC. Taan is responsible for completing analysis within TFL 60.</p>
6.23, a-c	watershed analysis for sub-unit and ≥70% hydrologically recovered	☒ Y	☐ N	<p>☒ a. watershed analysis complete; and</p> <p>☒ b. proposed harvest rates consistent with analysis and ≥70% forest (measured in ha) in upland stream area is hydrologically recovered; and</p> <p>☒ c. group ledger reviewed (updated minimum annually).</p> <p>A watershed analysis was last completed on October 14, 2014.</p> <p>Based on the analysis, sub-unit 588 is 93.3% recovered, allowing for 117.2ha available for harvest.</p> <p>Within sub-unit 588 there are currently three blocks planned for harvest: TOW004 (27.0ha), TOW005 (3.4ha) and TOW006 (2.3ha) are currently planned for harvest totaling 32.7ha.</p> <p>Based on the analysis, sub-unit 736 is 93.2% recovered, allowing for 76.4ha available for harvest.</p> <p>Within sub-unit 736 there are currently three blocks planned for harvest: TOW004 (16.3) and TOW006 (18.7ha) are currently planned for harvest totaling 35.0ha.</p> <p>Harvest plans are within watershed limits.</p>
6.25 (a-d) 6.26 (a-c)	<70% hydrologically recovered	☐ Y	☒ N	<p>☐ 6.25 a-e. If proposing to reduce upland stream retention area within a watershed sub-unit to below 70% hydrologically recovered, Plan Holders form an agreement outlining responsibility for watershed assessment, allocation of harvest and tracking; and</p> <p>☐ 6.24 a-d. Intergovernmental process required. A Watershed Assessment is required, harvesting must be consistent with assessment and an adaptive management plan is completed, documented and implemented prior to reducing upland stream area below 70%.</p> <p>Not applicable (see 6.23 a-c)</p>
6.27	direct tributaries - stream bank and channel stability	☒ Y	☐ N	<p>Where upland streams are direct tributaries to Type I or Type II Fish Habitat, sufficient vegetation, which may include trees, are retained to maintain stream bank and channel stability.</p> <p>There is a single stream (Str. 2R2) that is a direct tributary to fish habitat. Str. 2R2 has mostly been removed from the harvest area. This stream does not have trees that contribute significantly to maintaining stream bank and channel stability.</p> <p>All streams have a 7m MFZ established as part of the 'SOP – Operations' documentation. Stream management prescriptions are also identified within the Harvest Instructions.</p>
6.28	stream channels incised, steep gradients and high-humidity micro-climates	☐ Y	☒ N	<p>Retain sufficient trees and vegetation to maintain the plant communities.</p> <p>None of the streams within or adjacent to the block have high-humidity micro-climates.</p>
Sensitive Watersheds				

TOW006

6.31	Plan Holder agreement	☐ Y	☒ N	Prior to development activities within a Sensitive Watershed, Plan Holders will form an agreement that documents responsibility for watershed analysis and updates, allocation of harvest and tracking. 'Towustasin Hill Residual 3' is not designated as a Sensitive Watershed.
6.29 a, b	watershed analysis & group ledger	☐ Y	☒ N	☐ a. Watershed analysis complete that indicates ECA condition. ☐ b. Group ledger maintained on an on-going basis to track development activities and ensure current ECA. Not applicable (refer to 6.31)
6.30c	ECA ≥ 20%, no harvesting	☐ Y	☒ N	No harvesting is permitted in SW if ECA is ≥ 20% (calculated under 6.28a and recorded in ledger under 6.28b). Not applicable (refer to 6.31)
6.30a, b, d	ECA <20% - harvesting permitted	☐ Y	☒ N	If ECA <20%: ☐ a. watershed ≥ 500ha then up to 5% of the watershed may be harvested in a 5- year period; or ☐ b. watershed <500ha, up to 10% of the watershed may be harvested in a 10-year period; and ☐ d. proposed harvesting rates and ECA are consistent with the watershed analysis completed under R/S 6.28. Not applicable (refer to 6.31)
6.32a-d 6.33	ECA ≥ 20%, harvesting proposed	☐ Y	☒ N	Despite R/S 6.29, In the event that harvesting is proposed that exceeds the allowable harvest rate and/ or ECA thresholds: ☐ 6.32. Plan Holders form an agreement on who is responsible for completing required assessments and adaptive management plans, harvest rate allocation and tracking; and ☐ 6.31 a-d. intergovernmental process completed, watershed sensitivity assessment completed and rate of harvest is consistent with assessment, and an adaptive management plan is developed, documented and implemented prior to increasing the rate/ ECA. Not applicable (refer to 6.31)
Forested Swamps ≥0.25ha <i>Forested Swamps refer to the following BEC types: CWH wh1 – 12; CWH wh2 – 06; CWH vh2 – 13 (referred to as western redcedar-Sitka spruce/ skunk cabbage ecological communities under the LUO</i>				
6.34	1.5 tree length (avg. width) management zone	☐ Y	☒ N	There were no Forested Swamps identified during the development of TOW006. Although there are two small wetlands located within/ adjacent to the block at FC A1 and FC 16 they do not meet the definition of a forested swamp.
6.35	management zone >70% mature and old forest	☐ Y	☒ N	70% measures in hectares. Not applicable (see 6.34)
6.36a, b	management zone >60% mature and old forest	☐ Y	☒ N	Despite 6.34, amount of mature and old forest may be reduced to 60% provided amount retained is sufficient to maintain integrity of the forested swamp and an adaptive management plan is developed, documented and implemented prior to reducing the amount below 70%. Not applicable (see 6.34)
Ecological Representation				
6.37b (i-iv)	Plan Holder agreement	☒ Y	☐ N	Prior to development activities, Plan Holders will form an agreement outlining who is responsible to complete the ecological analysis, allocation of retention and recruitment across each LU and tracking. An agreement (Haida Gwaii Group FSP Implementation Agreement #2, dated March 2014)) has been signed-off by the FSP Holders.
6.37a, c	ecological representation analysis & group ledger	☒ Y	☐ N	☒ a. Analysis indicates current inventory of old forest by site series and LU ☒ c. Group ledger updated annually (minimum) to track depletions and additions to the old forest inventory by site series and LU. The Eco-Rep Analysis (June 2014 by Zimmfor Forest Management Ltd.) indicates the eco-rep status as follows:

TOW006

				<p>Block ecology includes: CWHwh1 - 01/05/06</p> <p>Masset Inlet - CWHwh1-01: LUO target is 2 245ha. There are currently 3 056ha of CWHwh1-01 captured in reserved areas meeting the target. No old or mature forest recruitment strategy is required.</p> <p>Masset Inlet - CWHwh1-05: LUO target is 44ha. There are currently 94.2ha of CWHwh1-05 captured in reserved areas meeting the target. No old or mature forest recruitment strategy is required.</p> <p>Masset Inlet - CWHwh1-06: no LUO target</p> <p>The group ledger has been updated with the above information.</p>
6.38	rare or common site series targets	☒ Y	☐ N	<p>Retain an amount (in hectares) of old forest greater than or equal to the applicable target listed for the identified site series consistent with R/S 6.36.</p> <p>Based on the Eco-Rep analysis June 2014, sufficient old forest for the applicable eco-type is available (see 6.37 a, c).</p>
6.39	consideration of wildlife habitat	☐ Y	☒ N	<p>Where practicable, when establishing ecological representation areas, consider wildlife habitat for species at risk and regionally important wildlife, including but not limited to northern goshawk nesting and foraging habitat, MAMU or great blue heron nesting habitat, northern saw-whet owl core nesting areas and bear dens/ habitat.</p> <p>In 2013, Taan completed a landscape level planning exercise to establish eco-rep Management Zones to meet these targets. Sufficient area has been retained to meet the targets and considers the above noted features. No EcoRep areas are specifically established within this block.</p>
6.40a, b	recruitment strategies	☐ Y	☒ N	<p>Where insufficient old forest available to meet ecological representation targets, identify, retain and recruit old forest by: choosing older stands given priority over younger stands; identifying mature stands of appropriate site series already constrained for other reasons and designating for ecological representation; and if not enough mature stands constrained for other reasons, select other suitable unconstrained areas.</p> <p>Not applicable (see 6.37 a, c)</p>
6.40 (i, ii)	recruitment intervention	☐ Y	☒ N	<p>Where mature stands are set aside for recruitment, consider fertilization of stand thinning treatments to promote old forest characteristics.</p> <p>Not applicable (see 6.37 a, c)</p>
Red and Blue Listed Ecological Communities ≥0.25ha				
6.41	retain all areas >0.25ha red and blue listed	☐ Y	☒ N	<p>The blue (CWHwh1 06) listed ecological communities has been identified during the development of TOW006. Minor components of the blue listed 06 site series are located within the harvest area and in the reserves as well. These areas are less than 0.25ha (un-mappable mosaic) and are comprised of immature timber aged 75-80years old or less. These types are retained within the retention associated with the block.</p>
6.42	up to 5% alteration or removal of red listed	☐ Y	☒ N	<p>If required for road access or to address a safety concern.</p> <p>Not applicable (see 6.41)</p>
6.43a, b	up to 30% alteration or removal of blue listed	☐ Y	☒ N	<p>☐ a. If required for road access or to address a safety concern; or</p> <p>☐ b. If required for another reason and harvesting is consistent with outcome of intergovernmental process.</p> <p>Not applicable (see 6.41)</p>
Black Bear Dens				
6.44	20m no harvest zone	☐ Y	☒ N	<p>No black bear dens were identified in the development area of TOW006.</p>

TOW006

6.45a-c	alteration or removal of den and/ or no harvest zone	☐ Y	☒ N	Intergovernmental process required. Alteration or removal is required for road access or to address safety concern and does not occur during winter hibernation season. Not applicable (see 6.44)
6.44	1.0 tree length (avg. width) management zone	☐ Y	☒ N	Not applicable (see 6.44)
6.47a-c	Alteration or removal of management zone outside hibernation season	☐ Y	☒ N	Alteration takes place outside of hibernation season: and ☐ a. Alteration is required to accommodate operational requirements for road or bridge construction and no practicable alternative exists; or ☐ b. Alteration is required to accommodate road maintenance/brushing etc. on an existing tenured road for safety purposes; or ☐ c. Alteration is required to mitigate windthrow. Not applicable (see 6.44)
6.46a, b	recruitment	☒ Y	☐ N	☐ a. Retain suitable cedar in the management zone, where practicable; and ☒ b. Retain trees, snags, stumps and logs >80cm in diameter in stand level retention, where practicable. Stand level retention has recruitment potential with a portion of trees, snags, stumps and logs >80cm in diameter
Marbled Murrelet Nesting Habitat				
6.49, a-b	nesting habitat inventory analysis and agreement	☒ Y	☐ N	Prior to development activities: ☒ a. a nesting habitat retention inventory will be completed; and ☒ b. Plan Holders will form an agreement that documents how the nesting habitat retention will be allocated and tracking. A MAMU nesting habitat inventory was completed as January 2014 by Zimmfor Management Services Ltd. An agreement (Haida Gwaii Group FSP Implementation Agreement #2, dated March 2014)) has been signed off by the FSP Holders. Consistent with the Implementation Agreement #2 the Plan Holders agree to apportion the LUO targets, based on their respective operating areas/ AAC.
6.48 (a-c)	retain nesting habitat	☒ Y	☐ N	Within each LU where development areas are proposed: ☒ a. retain an amount of nesting habitat within each LU $\geq$ LU Target; and ☒ b. ensure the nesting habitat is within the areas shown in Sched. 11; or ☒ c. group ledger is maintained that tracks depletions and additions to nesting habitat inventories (updated minimum annually). According to the MAMU nesting habitat inventory as indicated in 6.49 above, the LUO target within the Masset Inlet LU is 4 881 ha. Currently there are 6 502 ha of MAMU habitat Class 1 and Class 2 on the landbase. There are 4 880 ha of MAMU habitat located in reserves/LUO constrained areas. Additional area is required to meet the LUO target requirement. TOW006 does not overlap with Class 1 or Class 2 MAMU habitat polygons as indicated in Schedule 11 of the LUO. There is no Class 1 and Class 2 MAMU habitat located within 500m of the block.
Northern Goshawk Habitat				
6.50	reserve areas	☒ Y	☐ N	Retain all reserves per Sched. 12. No Goshawk reserves (Schedule 12) have been identified within or adjacent to TOW006.

TOW006

6.51, a, b, d	nests identified outside of reserve areas	☒ Y	☐ N	<p>Where discover a potential nest outside of the Sched. 12 reserves:</p> <p>☒ 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</p> <p>☒ b. have the nest and surrounding area assessed by a qualified professional; and</p> <p>☒ 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.</p> <p>Instructions regarding identification of new nests are located on Road and Harvest maps.</p>
6.51 c, e	200ha no harvest zone; 800m restricted activity zone	☐ Y	☒ N	<p>Where the qualified professional determines the nest to be a Northern Goshawk nest:</p> <p>☐ c. a 200ha no harvest zone is established 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</p> <p>☐ d. 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.</p> <p>Not applicable (see 6.50)</p>
6.52 a-d	reductions to reserves and no harvest zones	☐ Y	☒ N	<p>Despite R/S 6.49 and 6.50, reserves and no-harvest zones may be reduced provided the reduction is consistent with the results of intergovernmental process, reduction is required for road access where no practicable alternative exists or to address a safety concern, the reduction does not occur during breeding season and there is no net loss to the reserve area.</p> <p>Not applicable (see 6.50)</p>
Great Blue Heron Nesting Habitat				
6.54 a, b, d	potential nest sites	☒ Y	☐ N	<p>Where a plan holder identifies a potential nest site:</p> <p>☒ 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 CHN and the Province of BC as soon as practicable; and</p> <p>☒ b. have the nest and surrounding area assessed by a qualified professional; and</p> <p>☒ d. report the location of the confirmed nest to the CHN and province of BC as soon as practicable</p> <p>Instructions regarding identification of new nests are located on Road and Harvest maps.</p> <p>There are no known Great Blue Heron rookeries or nests located within or adjacent to TOW006 (refer to FSC Endangered Species Map, April 2011).</p>
6.53, 6.54 c	350m and ≥45ha no harvest zone	☐ Y	☒ N	<p>Retain confirmed nest sites with 350m no harvest zone. No harvest zones must also be ≥45 ha in size.</p> <p>Not applicable (see 6.54 a, b, d)</p>
6.54e	150m breeding season restricted activity zone	☐ Y	☒ N	<p>Unless confirmed by a qualified professional to be inactive three consecutive years during the breeding season (reconfirmed annually).</p> <p>Not applicable (see 6.54 a, b, d)</p>
Northern Saw-whet Owl Habitat				
6.55	reserve areas	☐ Y	☒ N	<p>Retain all reserves per Sched. 12.</p> <p>No Northern Saw-whet Owl reserves (Schedule 12) have been identified within or adjacent to TOW006.</p>
6.55, a, b, d	nests identified outside of reserve areas	☒ Y	☐ N	<p>Where discover a potential nest outside of the Sched. 12 reserves:</p> <p>☒ a. cease harvesting and road-building activities within 180m 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</p> <p>☒ b. have the nest and surrounding area assessed by a qualified professional; and</p>

TOW006

				☒ 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. Instructions regarding identification of new nests are located on Road and Harvest maps.
6.56 c 6.57	10ha no harvest zone, centered on nest site	☐ Y	☒ N	Where the qualified professional determines the nest to be a Northern Saw-whet owl nest: ☐ c. a 10ha no harvest zone is established and is centered around the nest site. Not applicable (see 6.55)
6.57	core nesting areas	☐ Y	☒ N	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. Not applicable (see 6.55)
Forest Reserves				
6.58	reserves	☒ Y	☐ N	Retain all forest reserves per Sched. 8 The nearest Forest Reserve is located 1.7km to the south of the block.
6.59 a-c (i-iii)	up to 5% reduction of forest reserve	☐ Y	☒ N	Despite R/S 6.57, up to 5% of the area of an individual forest reserve may be reduced provided: ☐ a. target requirements for ecosystem representation (R/S 6.37) and MAMU (R/S 6.47) have been met; and ☐ b. the remaining forest reserve is $\geq 5ha$; and ☐ c. the reduction is necessary to: ☐ (i) accommodate operational requirements for road or bridge construction and no practicable alternative exists; or ☐ (ii) accommodate road maintenance, deactivation, removal of danger trees, brushing and clearing of R/W or for safety purposes on any existing road under tenure; or ☐ (iii) to mitigate impact from windthrow Not applicable (see 6.59)
6.60 (a-f)	moving portion of forest reserve	☐ Y	☒ N	Despite R/S 6.57, a portion of a forest reserve may be moved to another location in the same LU provided: ☐ a. the alteration is consistent with the outcome of a completed intergovernmental process; and ☐ b. target requirements for ecosystem representation (R/S 6.37) and MAMU (R/S 6.47) have been met; and ☐ c, d, e. the portion removed is $\leq 20ha$, the areas retained are $>200m$ wide and 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. Not applicable (see 6.59)
Recruitment				
6.61	recruitment in no harvest zones, management zones and stand level retention areas	☒ Y	☐ N	Where some or all of the no harvest zones, management zones or stand level retention requirements under the LUO (cross ref R/S 6.4, 6.6-6.9, 6.14, 6.16, 6.17, 6.19, 6.33, 6.49, 6.50) have been previously altered or harvested, Plan Holders will provide for recruitment of mature and old forest through passive or active treatments (refer to the FSP and table 8 for details): ☒ Class 3 FF ☒ Type II Fish Habitat The features identified above have been previously altered or harvested. Mature or old forest will be recruited (passive) within retention areas for the features identified above.
Annual Reporting and Data Submission				

TOW006

6.62	annual reporting and data submission	☒ Y	☐ N	<p>Annual reporting and data submissions are required for many R/S refer to FSP Table 9, cross ref R/S 6.4, 6.6-6.9, 6.11-6.21, 6.33, 6.37, 6.40-6.43, 6.58, 6.59.</p> <p>Note: at the Site Plan level, the only applicable item related to this R/S is as follows:</p> <p>☒ GIS Layers properly identified</p>
FPPR Practice Requirements				
6.63	soils (FPPR 35, 36)	☒ Y	☐ N	<p>☒ s35. Soil disturbance limits for each SU are listed on page 1.</p> <p>☒ s36. Permanent access limits ≤7%; or</p> <p>The PAS for this block is calculated at 1.1ha or 4.2% of the TAUP.</p>
6.64	wetlands (FPPR 48)	☐ Y	☒ N	<p>Wetlands not classified as Type I or Type II fish habitat are managed per FPPR classes and minimum reserve and management zone widths.</p> <p>No 'classified wetlands' have been identified within or adjacent to TOW006. Both wetlands identified on the Site Plan map are less than the required size of 1ha for this BEC zone.</p>
6.65	lakes (FPPR 49)	☐ Y	☒ N	<p>Lakes not classified as Type I or Type II fish habitat are managed per FPPR classes and minimum reserve and management zone widths.</p> <p>No lakes have been identified within or adjacent to TOW006.</p>
6.66	restrictions in RMA (FPPR 50)	☒ Y	☐ N	<p>Upland streams, wetlands and lakes not classified as Type I or Type II habitat, are managed per FPPR 50 restrictions in an RMA:</p> <p>For the purposes of Upland streams, the applicable RMZ is 30m.</p> <p>Roads will be constructed in a riparian management area because there is no other practicable option for locating the road and the road is required as part of a stream crossing.</p> <p>Appropriate erosion control measures will be established as required, to control sediment.</p>
6.67	restrictions in wetland or lake reserve zone (FPPR 51)	☐ Y	☒ N	<p>Wetlands and lakes not classified as Type I or Type II fish habitat are managed per FPPR restrictions within a riparian reserve zone.</p> <p>There are no wetlands or lakes that are not classified as Type I and Type II fish habitat.</p>
6.68 b, c	retention of trees within RMZ (FPPR 12(3))	☒ Y	☐ N	<p>For the purposes of Upland streams, the applicable RMZ is 30m. Upland stream BA retention 0-100%.</p> <p>For wetlands and lakes not classified as Type I or Type II habitat BA retention ranges from 0-100%, considering potential for windthrow damage to feature or reserve zone.</p> <p>Where a stream's RMZ is located within the harvest area there will be no (0%) BA retention within the RMZ.</p>
6.70	community watersheds (FPPR 8(2))	☐ Y	☒ N	<p>Prior to development activities within a community watershed, Plan Holders will form an agreement that documents who is responsible for completing watershed assessments and any updates that might be required; allocation of harvesting rates and tracking.</p> <p>TOW006 is not within a community watershed.</p>
6.69 a-d	community watersheds (FPPR 8(2))	☐ Y	☒ N	<p>Proposed harvesting is within one of the following CWs:</p> <p>☐ Honna River ☐ Slarkedus Creek ☐ Tarundl Creek ☐ QC City</p> <p>☐ a. watershed assessment completed by qualified professional</p> <p>☐ b. primary forest activities are consistent with the recommendations of the assessment</p> <p>☐ c. assessment is updated every 5-years by qualified professional, unless no additional primary forest activities are proposed.</p> <p>☐ d. group ledger is maintained (updated minimum annually) to track development activities.</p> <p>TOW006 is not within a community watershed.</p>
6.71	maximum cutblock size (FPPR 64)	☒ Y	☐ N	<p>☒ Net Area to be Reforested (NAR) ≤40ha; or</p> <p>☐ harvesting is to recover timber damaged by fire, insect infestation, wind or other similar event and is designed to be consistent with natural disturbance; or</p> <p>☐ Basal area retention is ≥40%; or</p> <p>☐ no point in the cutblock is >two tree lengths from boundary, retention patch</p>

TOW006

				<p>>0.25ha; or</p> <p>☐ not point in the cutblock is more than one tree length from group of trees in patches <0.25ha.</p> <p>Block TOW006 is designed with a Net Area to be Reforested of 19.0ha within a single opening.</p>
6.72	adjacency (FPPR 65)	☐ Y	☒ N	<p>Must not harvest timber on a new area unless the existing cutblocks meet the green-up requirements specified in FPPR 65 (3) or the combined area of the existing cutblock, including any areas not greened up, have NAR ≤40ha.</p> <p>They are no adjacency issues with TOW006.</p>
6.73	adjacency (FPPR 65)	☐ Y	☒ N	<p>This R/S only applies to the Eden Lake Landscape Unit which is not located in Taan's tenure areas.</p>
6.74	wildlife tree retention (FPPR 66, 67)	☒ Y	☐ N	<p>Each block minimum 3.5%, 12 month average of blocks minimum of 7%. Each licensee is responsible for tracking. A WTRA may relate to multiple cutblocks if collectively, they meet the requirements.</p> <p>No harvesting within a WTRA unless the NAR to which the WTRA relates have developed attributes consistent with mature seral condition.</p> <p>A 1.5ha WTRA has been established along the riparian area of Str. 3. The WTRA area equals 7.1% based on a net harvest area of 21.0ha.</p>
6.75	cultural heritage resources – information sharing (FPPR 10)	☒ Y	☐ N	<p>A minimum of once annually, FSP holders will provide the CHN with opportunity to share information regarding cultural heritage resources: proposed activities, request information, keep records and document management activities to accommodate or rationale why efforts to accommodate not made.</p> <p>The development map for TOW006 has not been submitted to the CHN beyond the RP/ CP application process.</p> <p>Taan has documented procedures for receiving, vetting and tracking information and associated action items received from the public, including the CHN.</p>
6.76	development area referral (FPPR 10)	☒ Y	☐ N	<p>FSP Holders will submit maps for all proposed development areas to the CHN 30 days prior to cutting authority submission.</p> <p>Taan submitted a notification e-mail, information map and VIA to the CHN, providing the CHN with the Development Area for TOW006. This was completed via RP submissions on November 12, 2014 for TOW004 and TOW005. The VIA included the development area of TOW006.</p>
Government Action Regulation (GAR) requirements				
6.77, a-b	visual quality (GAR 7(2), FRPA 180, 181)	☒ Y	☐ N	<p>Block TOW006 is located within a visual polygon (#266) with a VQO of Modification (M). The Modification classification allows for 7.1-18% of the landscape to be visually altered.</p> <p>A visual impact assessment (VIA) was completed by D. Brown RPF of Zimmfor Management Service Ltd. on December 19, 2014 supported by a DTM created by Silvacre (November 6, 2014) utilizing a total of 5 viewpoints as shown on the key map. Estimates from the VIA shows the block as non-visual from 4 of the 5 viewpoints and with 0.6% alteration from viewpoint #295A. The visual state post-harvest is expected to be Retention. Analysis indicates that the visual alteration of TOW006 is within (below) the definition for the category of alteration of modification (FPPR S.1.1) being very easy to see, large in scale and natural in its appearance.</p>
6.78	recreation resources/ trails (FRPA 180, 181)	☐ Y	☒ N	<p>Proposed harvesting or road construction adjacent to a designated recreation site or trail, Plan Holder will consult with agency responsible to ensure proposed activity conducted in accordance with established objectives.</p> <p>Rec Sites: ☐ Rennel Sound ☐ Kagan Bay ☐ Clapp Basin ☐ Small Lake ☐ Moresby</p> <p>Trail: ☐ Riley Beach ☐ Five Mile Beach ☐ Slatechuck Mountain ☐</p>

TOW006

				<p><i>Sleeping Beauty</i></p> <p>The block is not located near or adjacent to any of the recreation sites or trails.</p>
6.79	recreation resources/ trails (FRPA 180, 181)	☐ Y	☒ N	<p>☐ established objective is for "non-motorized access";and</p> <p>☐ proposed new road construction will provide motorized access to the recreation site or trail</p> <p>Plan holder will deactivate the road within one year following completion of primary activities or obtain written approval from the government agency to maintain access and access will be established per the approval.</p> <p>Not applicable (see 6.79)</p>
6.80	Karst (GAR 5)	☐ Y	☒ N	<p>☐ Resource Features include karst caves, significant surface karst feature and very high or high vulnerability karst terrain (and Class 2 HF under LUO).</p> <p>Management strategies will follow R/S 6.6; and regardless of the outcome of an intergovernmental process, Karst Resource Features will not be damaged or rendered ineffective.</p> <p>The Assessment of Forest Karst Resources of Haida Gwaii: A Strategic Overview completed March 2009 by Paul Griffiths and Carol Ramsey identified karst potential polygons. These polygons do not overlap and are not adjacent to TOW006. No karst features were identified within, or adjacent to TOW006.</p>
6.81	WHA-MAMU (FPPR 9, 69)	☐ Y	☒ N	<p>Plan Holders will comply with the established General Wildlife Measures under the Order (6-041 and 6-046): including variance required to build road, operational timing restrictions, constraints to recreation and silviculture, including salvage activities, fire protection priority and stand treatments in 2nd growth stands to promote old growth characteristics.</p> <p>There are no established MAMU-WHA's within or adjacent to TOW006.</p>
6.82	WHA-QC/Northern Goshawk (FPPR 9, 69)	☐ Y	☒ N	<p>Plan Holders will comply with the established General Wildlife Measures under the Order (6-001 and 6-002): including seasonal constraints to activities in vicinity, no road construction within 200m of active nest unless variance approved, no blasting within 1km of active nest during breeding season as determined and confirmed with MoE, no harvesting or salvage within QHA except stand treatments to promote old growth characteristics. Also some specific restrictions for foraging areas (variable retention harvesting, maintain CWD, etc).</p> <p>There are no established QC/Northern Goshawk WHA's within or adjacent to TOW006.</p>
Measures – Invasive Plants				
7.1	training	☒ Y	☐ N	<p>The SP Forester (David M. Brown, RPF) who conducted the field work was trained in the identification of invasive plants on August 31, 2012.</p>
7.2	monitoring & reporting	☒ Y	☐ N	<p>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>Identification of previously unidentified invasive plants will be made known to Taan Representatives by surveyors, forest technicians, foresters or other trained personnel during site surveys and other silviculture or additional fieldwork within or around the area.</p>
7.3	monitoring & reporting	☒ Y	☐ N	<p>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>Indication of previously unidentified invasive plants will be made known to Taan Representatives by surveyors, forest</p>

TOW006

				technicians, foresters or other trained personnel during site surveys and other silviculture or additional fieldwork within or around the area. Taan will follow the assessment and action plan procedures indicated above.
7.4	sanitation and disposal	☒ Y	☐ N	<p><i>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.</i></p> <p>Contractors, road builders, brushers and other logging contractors are encouraged to wash equipment before moving from an area of known invasive plants before moving into a new area (refer to Harvest Instructions, Road Instructions and/ or Salvage Instructions for details).</p>
7.5	sanitation and disposal	☒ Y	☐ N	<p><i>Where invasive plant material is disposed of it will be disposed of in a landfill or by burning, to the extent practicable</i></p> <p>Where plant parts are actually removed from machines it is encouraged that the plant parts be disposed of by burning to avoid spread in land fill areas. If necessary plant parts should be disposed of in land fill areas (refer to Harvest Instructions, Road Instructions and/ or Salvage Instructions for details).</p>
7.6 a-c	re-vegetation	☒ Y	☐ N	<p><i>For newly 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:</i></p> <p>☒ a. re-vegetate the exposed area as climatic and soil conditions allow and within one year of disturbance, if:</p> <ul style="list-style-type: none"> <i>-the disturbed area is not to be reforested and is not the running surface of a road; and</i> <i>-the soil disturbance is likely to result in the introduction or spread of the established invasive plants; and</i> <i>-re-vegetating the site will materially reduce that likelihood of the spread of the invasive plants.</i> <p>☒ 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; and</p> <p>☒ c. 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> <p>TOW006 will be planned in Cengea for grass seeding of exposed soils from logging activities. The cut block is first entered as part of the silviculture regime. This is completed by Taan's Operations Forester.</p>
7.7	re-vegetation	☒ Y	☐ N	<p><i>Use Common No. 1 Forage Mixture (according to Canada's seed regulations). Or better.</i></p> <p>All grass seed ordered will be Canada # 1 Forage or better.</p>
7.8	roadside brushing	☒ Y	☐ N	<p><i>Where practicable, Plan Holders will modify roadside brushing treatment methods/ procedures to minimize the spread of established invasive plants (e.g., alter timing or method).</i></p> <p><i>Invasive Plants found in the area?</i> ☒ Yes ☐ No</p> <p>Canadian thistle, Bull thistle, Sow thistle and Cud Weed are known to exist on Datlaman Main.</p> <p>Where thistles are present: avoid brushing during times when seed can become airborne (generally mid to late summer).</p>

TOW006

D. FSC Certification Requirements

FSC certification requirements do not form part of the legal Site Plan content, commitments are voluntary under third party certification.

The following is provided for informational/ planning purposes and does not form part of the legal content of the Site Plan.

FSC Requirement ID	Title	Applicable?		Description
FSC 1	conflicts with LUO/ FSP	☐ Y	☒ N	<i>Note, that legal requirements under the LUO and the FSP take precedence over FSC certification requirements. In the event of an identified conflict between legal requirements and FSC, notify a member of the Planning Team promptly.</i> N/A, the FSC Management Plan notes that there are no identified conflicts.
FSC 2	consultation	☐ Y	☒ N	<i>LWI, Community Watersheds</i> <i>RE: planning notifications when proposed operations are in the vicinity of known LWIs or CW. In the event that any concerns raised can't be successfully resolved with the other party, contact the CMS Administrator promptly to initiate the FSC Dispute Resolution Process.</i> TOW006 is not located within or adjacent to a community watershed or licensed water intake. <i>Mount Moresby Adventure Camp (MMAC) – Mosquito Lake area: Planning notifications and consultation when proposed operations are in the vicinity. Review GIS layers for key sites identified as important to MMAC (e.g., visuals, karsts, bear dens, rare plants, trails, campsites, historical sites, old growth, etc.)</i> TOW006 is not located in the vicinity of MMAC.
FSC 3	riparian budgets	☒ Y	☐ N	<i>FSC Riparian Budgets Tracking Sheet completed and budgets met (rationale documented).</i> All riparian budgets are in excess of FSC requirements. The Riparian Tracker was completed by David M. Brown on December 11, 2014. The balance by stream class is as follows: Type I: 0.00ha Type II: 1.35ha S5a:0.0 ha S5b: 0.0 ha S6a: -0.18 ha S6b: 0.73 ha Note that there is a significant reach of Str2 R2 located to the north of the block. Although not included within the TAUP is retained from harvest, ensuring the riparian budget for S6a creeks is essentially positive.
FSC 4	stand level retention	☒ Y	☐ N	<i>Within each cutblock area (>200 m wide or 100 ha in aggregate), the retention of dominant and co-dominant green trees and snags as patches and/or single trees, and exceeds the following minimum levels (stems/ha, of which a minimum of 25% are snags where present): NDT 1 – 8 stems per hectare</i> <i>Confirm whether LUO reserve areas meet the FSC requirement, establish additional reserves where required.</i> The net harvest area for the block is 21.0ha and thus 168sph of dominant and co-dominant are required for retention across the block. Retention: 756stems = 771sph (from cruise) * 0.2 (20% of sph as co.dom & dom) * 4.9ha. Note: for the retention calculation the WTRA and reserves on the Type II stream are of similar composition and better wood quality than the harvest area. The retention area 'A' (approx. 0.2ha) was not used as this

TOW006

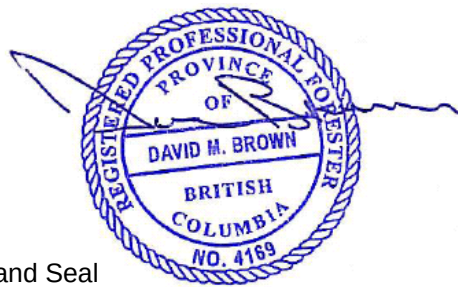
				is a small swamp and fringe timber and not considered representative. Snags: 0 sph (min. req'd = 2sph). This is a second growth stand with 50 snags/ha but these are all small stems at <20cm.
		☐ Y	☒ N	For the Skidegate LU , the target is to achieve an average of at least 20% stand level retention (in long term retention areas), as measured on an annual basis. The block is not located within the Skidegate LU.
FSC 5	stand level retention inventory	☒ Y	☐ N	<p>Provide a description of all reserves and retention patches associated with the proposed development area:</p> <p>-species representation (%) and dbh (min, max and average). Include in the description the percent representation of live wildlife trees and snags in general.</p> <p>-% of <u>large</u> snags (large snag is ≥30cm dbh and ≥10m height within the patch and compared to the % in the proposed harvest area (e.g., 20%/30%)</p> <p>-estimated # of pieces/ ha large CWD (≥20cm dbh and ≥10m long) within retention area and compared to the estimated occurrence in proposed harvest area (e.g., 10/12).</p> <p>Description: The block retains 5.1ha in WTRA, retention and LUO stream reserves within a homogeneous SsHw stand. Generally, there is subtle type change between the harvest area and the reserves as the boundary is located on a yarding break vs. a timber type change. However, there is an alder component immediately adjacent (approx. 15m width) to stream 3, a small wetland within retention area 'A' and upland riparian timber in retention 'B'.</p> <p><u>Patch ID – below the block (Riparian mixed species)</u></p> <p>Spp% & dbh avg (min-max): Ss75Hw20Dr5 – avg. DBH 36cm (20cm-85cm)</p> <p>% live wildlife trees & % snags: 14%/0%</p> <p>% Large snags vs. harvest area: 0%/0% (no large snags in the 2nd growth)</p> <p>CWD # vs. harvest area: 15/15 (old logging debris)</p>
FSC 6	HCVF – unique ecosystems	☐ Y	☒ N	<p>FSC MP - Sitka Spruce Riparian Forest, Sitka Spruce Sea Spray/ Fog Forest, Limestone Areas:</p> <p>No high conservation value forests were noted within or adjacent to the block</p>
FSC 7	HCVF – species at risk	☐ Y	☒ N	<p>FSC MP – high priority species not addressed under LUO: Barrow's goldeneye, Brown creeper, Steller's jay, Hairy woodpecker, ancient murrelet, keen's myotis, Western cowbane, Sphagnum subobesum, Haida Gwaii slug:</p> <p>HCVF-species at risk were not identified within or adjacent to TOW006.</p>
FSC 8	HCVF – large intact forests	☐ Y	☒ N	<p>Where proposed development area is located within one of the identified HCVF Large Landscape Intact Forest polygons, the existing plus proposed development (cutblock and road area) are within the established thresholds.</p> <p>TOW006 is not located within or adjacent to HCVF-large intact forests.</p>
FSC 9	NTFP	☐ Y	☒ N	<p>Mushroom study and habitat mapping reviewed and considered in block planning/ layout (e.g., Skidegate Lake and Mosquito Lake areas).</p> <p>The block is not located within the Skidegate or Mosquito Lake mushroom management areas.</p>
		☐ Y	☒ N	<p>Notification to Haida regarding potential cedar bark stripping areas prior to harvesting (preferably after roads are constructed):</p> <p>☐ Marlene Liddle – marlene.liddle@mhtv.ca</p> <p>The block is not suitable for Cedar bark stripping.</p>
FSC 10	access management	☒ Y	☐ N	<p>Consider access management and potential or deactivation to limit access to sensitive areas (e.g., WHAs, sensitive wildlife habitat, LWIs, Community Watersheds, etc).</p> <p>There are no sensitive areas noted with this block. In regards to deactivation TOW006 will be fully deactivated.</p>

TOW006

		☒ Y	☐ N	<p>Minimize new road construction and use existing roads to the best extent practicable in the following LUs: Skidegate & Masset</p> <p>Road construction has been kept to a minimum.</p>
FSC 11	max ECA 25%	☒ Y	☐ N	<p>Despite LUO requirements for Sensitive Watersheds and Upland Streams, the maximum permitted ECA under FSC is 25% (unless a hydrological assessment is completed that permits otherwise, and the assessment is publically available).</p> <p>-‘Towustasin Hill Residual 3’ watershed ECAs will be <25% post-harvest.</p> <p>This large (1391.3ha) watershed is currently 95.3% hydrologically recovered allowing for 282.9ha available for harvest.</p> <p>Within the watershed five blocks (TOW001, TOW002, TOW004, TOW005 and TOW006) are currently being planned for harvest and are within available harvest limits.</p>
FSC 12	forest influence	☒ Y	☐ N	<p>Report the forest influence for the proposed cutblock.</p> <p>A forest influence map has been prepared for the block and is based on forest cover tree heights. Forest influence is calculated to be 48.5%. As such, the block is not considered to be a retention block.</p>
FSC 13	landscape level connectivity	☐ Y	☒ N	<p>Considerations for landscape level connectivity within the Sewell and Honna LUs (e.g., consideration of connections for stand level reserves to adjacent forested area or reserve networks):</p> <p>Not applicable, TOW006 is not within the Sewell or Honna Landscape Units.</p>
FSC 14	important recreation areas	☐ Y	☒ N	<p>Considerations for key recreation sites of importance to locals and the Haida:</p> <p>☐ Massett Inlet ☐ Papa Johns ☐ Mosquito Lake</p> <p>Although the block is located within the Massett Inlet LU it is not considered to be within the ‘recreation site’ nor provided for the viewing [scenic lagoons, bays and estuaries], boating, fishing, bird hunting, beachcombing, boat touring and backcountry touring (e.g., on logging roads and clearcuts). No specific recreation values have been identified in the block via site level consultation or during operational planning.</p>
FSC 15	important bird areas	☐ Y	☒ N	<p>Considerations if any Important Bird Areas (refer to GIS layers) are located in the vicinity of the proposed development.</p> <p>☐ IBA 147 Lawn Point ☐ IBA 145 Skidegate Inlet ☐ IBA 144 Cumeshewa Inlet to Sheldens Bay</p> <p>The block is not located near or adjacent to the above noted sites.</p>
FSC 16	landslide hazard	☐ Y	☒ N	<p>Typically, “likelihood” is noted as “hazard” in TSFAs.</p> <p>Road Construction and Harvesting not permitted:</p> <p>☐ High likelihood landslide</p> <p>☐ Very high potential for snow avalanche</p> <p>*If appropriate measures can be applied that reduce the high likelihood/ very high potential, then harvesting and road construction may occur.</p> <p>Measures to reduce likelihood:</p> <p>Operations permitted IF measures implemented to reduce risk or prevent sedimentation and erosion:</p> <p>☐ Moderate likelihood landslide and high-very high landslide induced stream sedimentation hazard</p> <p>☐ Moderate likelihood of landslide and high-very high likelihood of reaching areas of human habitation</p> <p>☐ High potential for snow avalanche initiation</p> <p>☐ High-very high road/ditch/surface erosion hazard and high-very high sediment delivery</p>

TOW006

			<p><i>Measures to reduce risk:</i></p> <p>☐ Harvesting adjacent to areas of high likelihood of landslide or within/ adjacent to areas with moderate likelihood of landslide initiation does not significantly increase windthrow hazard in those areas.</p> <p>The block is located on gentle (5-26%) to moderate (26-50%) terrain. The block is designed for hoe-forwarding and the lower boundary is set either above the mainline or above the terrain break.</p> <p>No steep or unstable terrain was encountered during the site plan field review.</p>
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E. Supporting Information								
Soil Assessment:								
Hazard Ratings					Soil Characteristics			
SU	Soil Comp.	Soil Displ.	Surface Erosion	Forest Floor Displ.	Depth to Unfavorable Subsoil		Type of Unfavorable Subsoil	Sediment Delivery Risk (Community Watershed)
					Min (cm)	Max (cm)		
1	H	M	H	H	60	80	Till	N/A
Amendment Description/ Notes: ☐ N/A								
Attachments: (completed and reviewed, results incorporated into plans)								
Site Plan or Salvage Plan Map:						☒		
Other (specify):						☐		
Assessments:								
Riparian - Y ☒ / Not req. ☐			Terrain - Y ☐ / Not req. ☒					
Fish - Y ☒ / Not req. ☐			Visual - Y ☒ / Not req. ☐					
Windthrow - Y ☒ / Not req. ☐			Cultural Features ID - Y ☒			Arch. - Y ☐ / Not req. ☒		
Gully - Y ☐ / Not req. ☒			Karst - Y ☐ / Not req. ☒					
Administration:								
Prepared By: David M. Brown Name (Printed)								
Signing RPF: David M. Brown RPF Name (Printed)								
01/05/2015		4169						
Date Signed (mm/dd/yyyy)		RPF Number						
☒ "I certify that the work described herein fulfills the standards expected of a member of the Association of British Columbia Forest Professionals and that I did personally supervise the work."								

Legend

Boundaries

Falling Corner

Falling Boundary

Adjacent Proposed Block

Tenure Boundary

TAUP/Development Area

Harvest Method / Features

Stream Crossing

Single Tree Retention

Hoe / Backspar Trail

Management Features

Tree Crown Modification

Wildlife Tree Retention Area

Retention Area

Machine Free Zone

Sensitive Soils

Riparian Features

Type 1 Stream

Type 2 Stream

Upland Stream

Non-Classified Drainage

Unknown

Fish Sensitive Feature

Wet Ground/Swamp

Reach Break

Lakes / Wetlands

Forested Swamp

Non-Forested Swamp

Type 1 Habitat (Lake/Wetland)

Type 2 Habitat (Lake/Wetland)

Non-Fish (Lake/Wetland)

Unverified Lake/Wetland/Swamp

Roads

Road Station (Hub)

Engineered Road

Existing Road

Recce Road

Adjacent Engineered Road

FSR Road

Old Grade

Old Skid Trail

De-activated Road

Road Construction

Borrow Pit

Quarry

Contours (10m interval)

Index Contour and Label

Intermediate Contour

LUO Features

Devil's Club

Monumental Cedar(>120cm DBH)

Monumental Cedar(<120cm DBH)

Indian Hellebore

CMT

Pacific Crab Apple

Yew Tree (Single)

Yew Tree (Group)

Bear Den

Yellow pond-lily

LUO Features within TAUP/Dev. Area

LUO Reserve

LUO Management Zone

Other Features

Permanent Sample Plot

Dangerous Tree

Windthrow

Rock

Rock Bluff

Slide

Gully

Heli Pad

Heli Service Landing

Gate

Adjacent Retention

Adjacent WTRA

Greened Up Block

Non-Greened Up Block

Growth & Yield Plot Buffer

EBM Feature Inventory

Cedar Stewardship Area

Forest Reserve

Upland Stream Watershed Sub-Unit

Sensitive Watershed Boundary

Northern Goshawk Reserve

Northern Saw-Whet Owl Reserve

Other Constraints

Park / Conservancy Area

Wildlife Habitat Area

Geographic Centre Coordinates:
(Block Centre)
53° 35' 42"N Lat. / 132° 21' 58"W Long.

Taan
FOREST
*From the land and spirit
of the Haida.*

CUTBLOCK
SITE PLAN MAP

Watersheds and face units 736

Watersheds and face units 588

Sub-Basins 207

TOW006 Area within:
Sub-basin# 736- 18.7ha
Sub-basin# 588 - 2.3ha

Tree Crown Modification
Length: 646m
Width: 20m

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1862

1863

1886

1887

1888

1932

247(10)

276(11)

1612(66)

1274(53)=0(1)

362(39)

Str 1 R1

Str 2 R1

Str 2 R2

Str 1 R2

Str 3 R1

Str 3 R2

Str 3 Y

Str 8 R2

Str 8 R1

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