

# Haida Gwaii Forest Stewardship Plan

November 2011





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## 1.0 Clarifications

In this Forest Stewardship Plan (FSP, “the Plan”, “this Plan”), where terms are used which are defined in the Land Use Order (LUO), Forest and Range Practices Act or the Forest Planning and Practices Regulation, the definition of the term is as per the Order, Act or Regulation (e.g., “tree-length” and “intergovernmental process” are as defined in the LUO). Where there is confusion or conflict between the LUO, FRPA or the FPPR, the order of precedence is as follows: LUO, then FRPA, then the FPPR.

“Plan Area” means the tenure areas indicated in Table 1, covered by FDU A (refer to FSP map in Appendix A).

“Plan Holder” means one of the signatories to the FSP, as indicated in Table 1, below.

“Cedar” means, unless specified otherwise, western redcedar (*Thuja plicata*) or yellow cedar (*Chamaecyparis nootkatensis*).

“CMT” means culturally modified tree, as defined in the LUO. Furthermore, as noted within the LUO, s. 1(2), the LUO is in conflict with FPPR s. 10. However, consistent with FPPR s. 12(4) the objective established under the LUO prevails in regards to the date provided for a CMT (i.e., is 1920, rather than 1846, as defined under the Heritage Conservation Act and referenced in the FPPR).

“Diameter at Breast Height” or “dbh” means the outer bark diameter of a tree, measured at 1.3m from the forest floor, on the high side (consistent with the Ministry of Forests Cruising Manual).

“Direct Tributary” means a portion of a tributary stream that:

- a) is a minimum of 100m in length, and
- b) has the same stream order as the most downstream reach of the tributary.

“Tree-length” is used throughout the Plan in regards to the widths of no-harvest and management zones. Tree-length is as defined in the LUO, and the associated LUO Schedule 5. The site specific tree-length (i.e., height assigned) will be documented in the Site Plan. The LUO definition provides two methods for determining the tree-length, depending on if the stand is old-growth or young/ immature, as follows:

- 1) Using the predominant site-series for the area and then referencing LUO Schedule 5. As site-series information is required to reference Schedule 5, Plan Holders will need to determine the predominant site-series by either using TEM information or by field verifying the site-series. Whichever method is used, it will be documented within the Site Plan.
- 2) By measuring the tallest trees in the area adjacent to the feature. It should be noted that this method would be inappropriate for areas that have been previously harvested (i.e., there are no mature trees to measure).

Whichever method, 1 or 2 from above, is used, it will be documented within the Site Plan. Where areas have previously been harvested, and the stand has yet to become mature, then method 2 from above will not be used.

“High priority invasive plants” are those which are currently limited in distribution across Haida Gwaii and will have significant negative impacts if permitted to proliferate. Invasive plants and high-priority invasive plants known to occur in the Plan area at the time of Plan submission are listed in Table 11.

“Ministry of Forests” (MOF) means the Ministry of Forests, Lands and Natural Resource Operations (the Provincial government Ministry responsible for bringing the LUO into force and responsible for approving Operational Plans for forest tenure holders).

“Riparian Management Areas”, under the LUO, the RMA for streams is as follows:

Type I Fish Habitat = 2.0 tree-lengths

Type II Fish Habitat = 1.5 tree-lengths

The abbreviation “s.” is used to indicate a numbered section or sections of the indicated Act or Regulation.

The capitalized word “Section” or “Sub-section” is used in the singular or plural to refer or cross reference to a numbered clause or section within this FSP.

Where the LUO or Schedules contained therein are referenced in this Plan, they are as they were on the date of approval of this FSP, and provided in Appendix E, for reference.

## 2.0 Abbreviations

“AFU” means active fluvial unit

“AIA” means an Archaeological Impact Assessment completed by a Professional Archeologist

“BEC” means Biogeoclimatic Ecosystem Classification

“CSA” or “CS Area” means Cedar Stewardship Area

“CP” means Cutting Permit

“DDM” means Designated Decision Maker

“ECA” means Equivalent Clearcut Area

“FDU” means Forest Development Unit

“FRPA” means the Forest and Range Practices Act

“FPPR” means the Forest Planning and Practices Regulation

“GAR” means the Government Actions Regulation

“GWM” means General Wildlife Measure

“HTFF” means Haida Traditional Forest Feature

“HTHF” means Haida Traditional Heritage Feature

“IAPP” means the provincial Invasive Alien Plant Program

“LU” means “Landscape Unit”, which are as established in the LUO, Schedule 1

“LUO Order” or “LUO” means the Land Use Objectives Order for the Haida Gwaii (dated December 16, 2010)

“MOF” means Ministry of Forests

“NAR” means Net Area to be Reforested

“NWIPC” means the Northwest Invasive Plants Council

“PAS” mean Permanent Access Structure

“RBA” means Residual Basal Area

“RMA” means Riparian Management Area

“RMZ” means Riparian Management Zone

“RP” means Road Permit

“RRZ” means Riparian Reserve Zone

“TEM” mean Terrestrial Ecosystem Mapping

“TFL” means Tree Farm License

“TL” means Timber License

“TSL” means Timber Sale License

“WHA” means Wildlife Habitat Area

## 3.0 Application

FRPA s. 3(4)

### Plan Signatories & Tenures

This FSP applies to the Plan Holders and tenures indicated in Table 1, below.

**Table 1: Plan Signatories and Associated Tenures Subject to this FSP, by FDU**

Plan Signatory	Tenure	FDU
Taan Forest LP	TFL 60, including the following TFLs <sup>1</sup> : T0315, T0322, T0331, T0336, T0341, T0348, T0351, T0358, T0363, T0374, T0380, T0387, T0396, T0402, T0410, T0415, T0422, T0430, T0437, T0441, T0448, T0455, T0461, T0468, T0473, T0482, T0503, T0510	A
	FLTC A87661	A
BCTS – Chinook Business Area (Haida Gwaii TSA)	N/A	A
Teal Cedar Products Ltd.	TFL 58	A
	FL A16870	A
	TL T0184	A
	TL T0253	A
Husby Group		
- Husby Forest Products Ltd.	FL A16869	A
- Dawson Harbour Logging Co. Ltd.	FL A75084	A
- TimberWest Forest Ltd.	TL T0279	A

### Limited Responsibility

Each FSP Signatory shall be individually responsible for achieving the results, carrying out the strategies, meeting the stocking requirements or implementing the measures in this FSP that pertain to the forest practices of said Licensee or their license areas.

## 4.0 Term

FRPA s. 6(1)(a)(b); 6(2)

The term of this FSP commences on the date of FSP approval by the DDM and expires 5 years after the date of approval, or another date specified in writing by the Minister or DDM.

## 5.0 Map

FRPA s. 5(1)(a) and FPPR s. 14

The FSP map appended to this document (Appendix A) shows the forest development units (FDUs), tenures and other features of the Plan Area. The map also provides an overview of the Plan Area, including major topographic features and related information that will take effect with the approval of this FSP.

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<sup>1</sup> This FSP does not apply to TFL 60, or and associated TFLs until the tenures are transferred to Taan Forest LP.

## Designations in Effect prior to Submission

### FPPR s. 14(2)

The FSP map shows the designations and other areas listed in FPPR s. 14(3) that were in effect on the date the FSP was submitted for approval.

Designations in effect at the time of submission are summarized in Table 2, below.

**Table 2: Designations in Effect in the Plan Area at Time of Plan Submission**

Designation Category	Designation Details	FDU	Date Designated
Ungulate Winter Ranges	N/A	N/A	N/A
Wildlife Habitat Areas	Northern Goshawk: WHA #6-001 WHA #6-002	A	September 13, 2001 May 14, 2003
	Marbled Murrelet: WHA #6-041 WHA #6-046	A	April 7, 2003
Fisheries Sensitive Watersheds	N/A	N/A	N/A
Scenic Areas	VQO's established for the TSA VQOs for TSA and TFLs consolidated and mapped	A	December 22, 2005
Community Watersheds	Honna River, Slarkedus Creek, Tarundl Creek	A	June 15, 1995
	Queen Charlotte Community Watershed		Sept. 11, 1997
Old Growth Management Areas	N/A	N/A	N/A
Areas in which commercial timber harvesting is prohibited	As shown on the FSP Map (Protected Areas, Reserves, Private Land/ areas outside of FDU A)	A	N/A
Recreation Sites	Rennell Sound, Kagan Bay, Clapp Basin, Small Lake, Moresby	A	Objectives Effective December 31, 1997
Recreation Trails	Riley Beach, Five "5" Mile Beach, Slatechuck Mountain, Sleeping Beauty	A	Objectives Effective December 31, 1997

**Areas within FDUs Subject to Cutting Permit or Road Permit  
FPPR s. 14 (2)(b) and 14(3)(j)&(k)**

Tables 3, 4 and 5 below, show the areas within the Plan Area that are subject to a CP, RP or TSL held by (or entered into) one of the Plan Holders and in effect on the Date of Submission.

The FSP Supporting Information Map also illustrates the information presented in Tables 3, 4, and 5.

**Table 3: Active Cutting Permits & Timber Sale Licenses**

Plan Signatory	Tenure	Approved CPs (TSLs for BCTS)
Taan Forest LP	TFL 60, including the following TLs: T0315, T0322, T0331, T0336, T0341, T0348, T0351, T0358, T0363, T0374, T0380, T0387, T0396, T0402, T0410, T0415, T0422, T0430, T0437, T0441, T0448, T0455, T0461, T0468, T0473, T0482, T0503, T0510	563, 564, 574, 577, 578, 588, 589, 590, 591, 593, 594, 575, 588
	FLTC A87661	1, 2, 3
BCTS – Chinook Business Area (Haida Gwaii TSA)	N/A	A62485, A68535, A83255, A83750, A83751, A83752, A83859, A83862, A85373, A85507, A85508, A85757
Teal Cedar Products Ltd.	TFL 58	228, 242, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258
	FL A16870	601, 604, 605, 606
	TL T0184	N/A
	TL T0253	N/A
Husby Group		
- Husby Forest Products Ltd.	FL A16869	201, 200, 143, 142, 141, 140, 139, 138, 137, 136, 135, 134, 133, 132, 131, 130, 129, 121, 119, 202, 144, 617 (formerly in FL A16871)
- Dawson Harbour Logging Co. Ltd.	FL A75084	804, 805, 806, 807, 808
- TimberWest Forest Ltd.	TL T0279	N/A

**Table 4: Active Road Permits**

Plan Signatory	Tenure	Approved RPs
Taan Forest LP	TFL 60	R13328, R13346, R13347, R13348, R13349, R13350
	FLTC A87661	R18169
BCTS – Chinook Business Area (Haida Gwaii TSA)	N/A	R17021, R17140, R17390, R17632, R17781, R18168, R18169
Teal Cedar Products Ltd.	TFL 58	R06206, R13249
	FL A16870	R00863
	TL T0184	R06711
	TL T0253	R06723
Husby Group		
- Husby Forest Products Ltd.	FL A16869	R06269, R06268, R07497
- Dawson Harbour Logging Co. Ltd.	FL A75084	R11023
- TimberWest Forest Ltd.	TL T0279	R07084

**Table 5: Active Salvage Permits**

Plan Signatory	Tenure	Salvage Permits (CP)
Taan Forest LP	TFL 60	690 - post harvest 926, 929, 625 - damaged timber
	FLTC A87661	700 - damaged timber
BCTS – Chinook Business Area (Haida Gwaii TSA)	N/A	N/A
Teal Cedar Products Ltd.	TFL 58	296, 299
	FL A16870	599, 600
	TL T0184	G, M
	TL T0253	N/A
Husby Group		
- Husby Forest Products Ltd.	FL A16869	471, 488
- Dawson Harbour Logging Co. Ltd.	FL A75084	N/A
- TimberWest Forest Ltd.	T0279	N/A

Table 6, below, shows the areas within the Plan Area that are Declared Areas held by one of the Plan Holders. The FSP Supporting Information Map also illustrates the information presented in Table 6.

**Table 6: Declared Areas (FPPR s. 14(4))**

Plan Signatory	Tenure	Declared Areas	
		Cutblocks	Roads
Taan Forest LP	TFL 60	N/A	N/A
	FLTC A87661	N/A	N/A
BCTS – Chinook Business Area (Haida Gwaii TSA)	N/A	LOO013, MAI003, MAI005, MOS720, SKI101, SKI102, SKI103, SKI200, COL010, COL013, JUN005, KUM002, KUM020, LAW711, LAW712, LOO007, LOO012, NEY009, NEY022, A68531, BON1, NEY002, NEY007, NEY011, MAI100, MAI101, MAI104, MOS716, MOS813, EAS004, EAS120A, KUM103, LAW005, MOS803, MOS809, SEW100, SEW281, SEW281A, SEW290A, SEW350, SKI511, LOO005, LOO008, EAS005, LOO117, LOO118, LOO107, LOO122, LOO121, GRE503, LOO123, BON508, BON509, BON517, HAN507, RIL520, LAW001, TLE003, TLE004, LOO125, LOO128, COL011	NEY2000, NEY1000, MAI2300, LOO3000, NEY1000, COL3000, LAW1000, BIL1320, BIL1230, MOS 1220, LOO2690, LOO2691, LOO2692, LOO2693, LOO2620, LOO2623, LOO4500, EAS1800, EAS1810, EAS1820, EAS1830, EAS1840, EAS1850, EAS1860, EAS1870, BOU3500, BOU3000, BOU3100, LOO6100, BM1730, LOO1600, LOO1610, LOO1620, BM2800, BM2940, LOO2695, LOO2640, QC TLE1000
Teal Cedar Products Ltd.		N/A	N/A
Husby Group		N/A	N/A

## 6.0 Results & Strategies

### Land Use Objectives (LUO s. 3-23)

#### *Haida Gwaii Land Use Objective Order*

On December 16, 2010 the Minister of Natural Resource Operations signed the Haida Gwaii Land Use Objectives Order, which established objectives for the purposes of the Forest and Range Practices Act. Results and Strategies have been created to meet all of these objectives, as provided below. Applicable Schedules from the LUO have been included in Appendix E, as they were on the date of FSP submission for approval.

#### **Cultural Objectives**

Sections 6.1 through 6.16 apply to FDU A.

#### **Cedar Stewardship Areas**

##### **LUO s. 3**

- 6.1 Plan Holders will not harvest within CS Areas (as identified in the LUO, Schedule 3).
- 6.2 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:
  - 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
  - b) ensure the total CS Area area harvested is  $\leq 10\%$  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
  - 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
  - d) the Plan Holders will maintain a group ledger, updated annually at a minimum, which tracks any CS Area harvest activities; and
  - 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.

#### **Cultural Feature Identification**

##### **LUO s. 4**

- 6.3 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.

**Table 7: Maximum CS Area Harvest by Landscape Unit**

Landscape Unit	CS Area (ha)	Maximum 10 Year CS Area Harvest Potential (ha)	Maximum Total CS Area Harvest Potential (ha) (10 % threshold)
Eden Lake	3,150.8	31.5	315.1
Honna	1,362.7	13.6	136.3
Ian	5,857.2	57.5	585.7
Jalun	210.8	2.1	21.1
Louise Island	228.1	2.3	22.8
Lower Yakoun	6,933.9	67.3	693.4
Masset Inlet	3,310.7	33.1	331.1
Naikoon	284.7	2.8	28.5
Otun	473.0	4.7	47.3
Rennell	304.7	3.0	30.5
Sewell	69.1	0.6	6.9
Skidegate Lake	1,335.9	13.3	133.6
Tlell	933.2	9.3	93.3
Yakoun Lake	897.7	8.9	89.8
<b>Total</b>	<b>25,352.6</b>	<b>250.0</b>	<b>2,536.3</b>

### Haida Traditional Heritage Features LUO s. 5

- 6.4 “Haida Traditional Heritage Features” are defined the LUO as being those features listed in Schedule 2 of the LUO. However, in order to be measurable 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:
- a) Potential HTHFs will be identified and assessed through the Cultural Features Identification Survey, completed by qualified surveyors.
  - b) Where potential HTHFs are identified, AIAs will be completed, and the significance of the identified feature will be determined.
  - c) Where identified features are deemed to be of continued cultural significance in the AIA, they will be classed as HTHFs and managed accordingly.
- 6.5 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.
- 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.
  - 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.

- 6.6 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.
- 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.
  - 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.

Where the Class 2 HTHF is a “Karst Feature”, it will be also be subject to Section 6.80, below.

### **Haida Traditional Forest Features**

#### **LUO s. 6**

- 6.7 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.
- 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.
  - b) The area of the management zone may be reduced, if necessary for road access, other infrastructure or to address safety concerns, provided that:
    - i) the integrity of the HTFF is maintained; and
    - ii) the size of the management zone is consistent with the outcome of a completed intergovernmental process.
- 6.8 Where Class 2 HTFFs are identified within a development area,  $\geq 50\%$  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:
- a) adjusting operational boundaries to exclude HTFF areas; and
  - b) modifying harvesting practices in the vicinity of HTFFs.
- 6.9 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.

## **Cedar Retention**

### **LUO s. 7**

6.10 Where development areas are either:

- i) > 10ha and the pre-harvest cedar (western redcedar and yellow cedar) content >30%; or
- ii) ≤ 10ha and the pre-harvest cedar (western redcedar and yellow cedar) content >60%;

then Plan Holders will retain a minimum of 15% of the combined pre-harvest cedar composition of the development area, measured in hectares.

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.

Plan Holders will meet the 15% cedar retention requirement using all of the following strategies:

- 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.
- b) Where existing cedar reserves are insufficient to meet the cedar retention requirements, then additional cedar retention areas will be retained.
- 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.
- 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.

6.11 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, subject to Section 6.12.

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.

**Table 8: Minimum Post-Harvest Cedar Composition, Based on Pre-Harvest Cedar Composition**

Pre-harvest Cedar Composition %	Minimum Post-Harvest Cedar Composition (sph)
20-29	100
30-39	150
40-49	175
50-59	200
60-69	250
70-79	300
80-89	350
90-100	400

Plan Holders will use the following strategies to meet the objective:

- a) Plan Holders will strive to meet the cedar commitment through planting and/ or natural regeneration.
- b) Where deer browse hazard is moderate to high, planted cedar trees will be protected. Protection measures may include coning, scented deterrents, or caging.
- 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.
- d) Cedar acceptability criteria will be as follows:
  - i) Regenerated cedar will only be accepted if they are of good form and vigour (refer to Appendix B).
  - ii) Regenerated cedar will only be accepted if they are  $\geq 1.2\text{m}$  tall.
- 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.

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.

6.12 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.

### **Western Yew Retention**

#### **LUO s. 8**

6.13 Where western yew patches are identified within a development area, they will be protected by establishing stand level retention areas, subject to:

- a) western yew patches may be altered or removed to accommodate operational requirements for road and bridge construction, where no practicable alternative exists.

6.14 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.

## **Cultural Cedar Stands, CMTs and Monumental Cedar**

### **LUO s. 9**

- 6.15 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.
- 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.
  - 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.
  - 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.
- 6.16 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:
- a) the applicable Plan Holder completing an intergovernmental process confirming that the monumental cedar is not required for cultural use; or
  - 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.

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.

### **Aquatic Habitats**

Sections 6.17 through 6.33 apply to FDU A.

### **LUO s. 10, 11**

For the purposes of Sections 6.17 through 6.33, the locations of Type I and II fish habitat are as indicated in Schedule 4 of the LUO, unless field assessment indicates otherwise. Where there is a conflict between the LUO and the field assessment as to where the Type I or II fish habitat is located, the field assessment shall prevail.

For the purposes of defining stream riparian classes, the following is provided:

- The riparian no-harvest zone begins at the outer edge of the Type I or II Fish Habitat, including the active floodplain.
- The riparian management zone begins at the outer edge of the riparian no-harvest zone, or if there is no riparian no-harvest zone, the edge of the stream channel bank.

## **Type I Fish Habitat**

### **LUO s. 10**

- 6.17 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:
- 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.
  - 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:
    - i) the integrity of the Type I fish habitat is maintained; and
    - ii) the alteration or removal is required for road or bridge construction, or to address a safety concern and no practicable alternative exists; or
    - 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.

## **Type II Fish Habitat**

### **LUO s. 11**

- 6.18 With reference to individual development areas, where Type 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:
- 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.
  - 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.
  - 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.
- 6.19 Despite Section 6.18 above, the combined area of the Type II habitat no-harvest and management zones may be further reduced, provided:
- a) the reduced area is consistent with the outcome of a completed intergovernmental process; and
  - 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  $\leq 20\%$ , measured in hectares; and
  - c) the integrity of the Type II habitat is maintained; and
  - 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.

## **Active Fluvial Units**

### **LUO s. 12**

- 6.20 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.

- 6.21 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.
- 6.22 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:
- a) sufficient functional riparian forest is retained to protect the integrity of the AFU; and
  - 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.

### **Upland Stream Areas**

#### **LUO s. 13**

- 6.23 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:
- a) a watershed analysis will be completed by a qualified person that indicates the watershed condition and the upland stream area; and
  - 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
  - c) the Plan Holders will maintain a group ledger, updated annually at a minimum, that tracks the development activities within watershed sub-units.
- 6.24 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.
- 6.25 Despite Section 6.23, <70% of the forest, measured in hectares, in the upland stream area may be retained, provided that the Plan Holders ensure the following, subject to Section 6.26, below:
- a) the revised upland stream area retention percentage is consistent with the outcome of a completed intergovernmental process; and
  - 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
  - c) the rates of harvesting within a watershed sub-unit are consistent with the watershed assessment results provided in Sub-section 6.25b); and
  - d) an adaptive management plan is developed, documented and implemented prior to reducing the upland stream area retention percentage below 70%, measured in hectares.
- 6.26 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:
- a) who is responsible to complete the process outlined in Sub-sections 6.25a) through 6.25d) above; and
  - b) how the rates of harvesting will be allocated, consistent with the assessment; and
  - c) who is responsible for tracking the rates of harvest within the watershed sub-unit.

- 6.27 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.
- 6.28 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.

### **Sensitive Watersheds**

#### **LUO s. 14**

- 6.29 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:
- a) A watershed analysis will be completed by a qualified person that indicates the watershed ECA condition.
  - b) The Plan Holders will maintain, on an ongoing basis, a group ledger which tracks the development activities within the sensitive watersheds.
- 6.30 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:
- a) For watersheds  $\geq 500$ ha, up 5% of the watershed area may be harvested in a 5-year period.
  - b) For watersheds  $< 500$ ha, up 10% of the watershed area may be harvested in a 10-year period.
  - c) Despite Sub-sections a) and b) above, no harvesting will occur in sensitive watersheds with an ECA  $\geq 20\%$ .
  - d) Harvest rates and ECAs will be based on the watershed analysis required under Section 6.29, above.
- 6.31 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.
- 6.32 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:
- a) the revised rate of harvest and/ or ECA threshold is consistent with the outcome of a completed intergovernmental process; and
  - 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
  - c) the rates of harvesting within a watershed sub-unit are consistent with the watershed assessment results provided in Sub-section b), above; and
  - d) an adaptive management plan is developed, documented and implemented prior to increasing the rate of harvest and/ or ECA for the watershed.

- 6.33 Where Plan Holders are proposing to increase the rate of harvest and/ or the ECA, within a given sensitive watershed, prior undertaking the steps required under Section 6.32 above, the applicable Plan Holders will form an agreement that documents:
- a) who is responsible to complete the process outlined in Sub-sections 6.32a) through 6.32d) above; and
  - b) how the rates of harvesting will be allocated, consistent with the assessment; and
  - c) who is responsible for tracking the rates of harvest within the watershed.

## **Biodiversity**

Sections 6.34 through 6.43 apply to FDU A.

### **Forested Swamps**

#### **LUO s. 15**

For clarity, 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).

- 6.34 With reference to individual development areas, where forested swamp areas  $\geq 0.25$ ha occur, they will be retained and a 1.5 tree-length (average width) management zone will be established to protect the forested swamp.
- 6.35 Within management zone established under Section 6.34 above, >70% of the forest, measured in hectares, will be retained as mature or old forest.
- 6.36 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:
- a) the amount of mature and old forest retained is sufficient to maintain the integrity of the forested swamp; and
  - 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.

### **Ecological Representation**

#### **LUO s. 16**

- 6.37 Within each Landscape Unit indicated in LUO Schedule 10, and where development areas are proposed by a Plan Holder, prior to development activities the Plan Holders will do the following:
- 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.
  - b) For each LU, the applicable Plan Holders will form an agreement that documents:
    - i) who is responsible for completing the ecological representation analysis; and
    - ii) how the required old forest retention will be allocated; and
    - iii) how any required old forest recruitment, consistent with Section 6.40 below, will be allocated; and
    - iv) who is responsible for tracking the old forest retention.
  - 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.
- 6.38 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.

- 6.39 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:
- a) Northern Goshawk nesting and foraging habitat; and
  - b) Marbled Murrelet nesting habitat, Great Blue heron nesting habitat, and Northern Saw-whet Owl core nesting areas; and
  - c) Black Bear dens and denning habitat.

6.40 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.

Strategies that will be used to identify, retain and recruit old forest stands include:

- 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.
- 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.

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:

- i) Fertilization treatments, to help accelerate rates of growth and promote old-growth characteristics.
- ii) Stand thinning or stand modification treatments to help accelerate rates of growth and promote old-growth characteristics.

### **Red and Blue-Listed Ecological Communities**

#### **LUO s. 17**

- 6.41 With reference to individual development areas, where red or blue-listed ecological communities  $\geq 0.25$ ha occur, they will be retained.
- 6.42 Despite Section 6.41 above, 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.
- 6.43 Despite Section 6.41 above, up to 30% of the area of each blue-listed ecological community occurring in a development area may be altered or harvested if:
- a) the harvesting is required for road access or to address a safety concern; or
  - 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.

## **Wildlife**

Sections 6.44 through 6.60 apply to FDU A.

### **Black Bear Dens**

#### **LUO s. 18**

- 6.44 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.
- 6.45 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.
- 6.46 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.
- 6.47 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.

### **Marbled Murrelet Nesting Habitat**

#### **LUO s. 19**

- 6.48 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.

- 6.49 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.

### **Northern Goshawk Habitat**

#### **LUO s. 20**

- 6.50 Plan Holders will retain all Northern Goshawk reserves as shown on LUO Schedule 12.
- 6.51 Where a Plan Holder discovers a potential Northern Goshawk nest that outside of the LUO Schedule 12 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.
- 6.52 Despite Sections 6.50 and 6.51 above, Northern Goshawk reserves (LUO Sch. 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.

## **Great Blue Heron Nesting Habitat**

### **LUO s. 21**

- 6.53 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  $\geq 45$ ha in size.
- 6.54 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.

## **Northern Saw-whet Owl Nesting Habitat**

### **LUO s. 22**

- 6.55 Plan Holders will retain all Northern Saw-whet Owl reserves, as shown on LUO Schedule 12.
- 6.56 Where a Plan Holder discovers a new potential Northern Saw-whet Owl nest that 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.
- 6.57 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.

## **Forest Reserves**

### **Areas Reserved to Meet Landscape Level Objectives**

#### **LUO s. 23**

- 6.58 Plan Holders will retain all the Forest Reserves, as shown on LUO Schedule 8.
- 6.59 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 Reserve is  $\geq 5.0$ ha; 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.
- 6.60 Despite Section 6.58 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  $\leq 20$ ha; and
  - d) the areas retained are  $> 200$ m in width; and
  - e) the relocation does not result in any Forest Reserve that is  $< 5.0$ ha; 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.

## **Recruitment in No-harvest Zones, Management Zones & Stand Level Retention**

Section 6.61 applies to FDU A.

### **LUO s. 5, 6, 10, 11, 15 and 20**

6.61 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, below) 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.

**Table 9: Recruitment Summary Table, by LUO Objective**

<b>Objective Requiring Recruitment</b>	<b>Recruitment Location</b>	<b>FSP Section Reference</b>
Class 1 HTHFs	No-harvest Zone	6.5
Class 2 HTHFs	No-harvest Zone	6.6
Class 1 HTFFs	No-harvest Zone	6.7
Class 2 HTFFs	Applicable Stand Level Retention	6.8
Class 3 HTFFs	Applicable Stand Level Retention	6.9
Cultural Cedar Stands, CMTs & Monumental Cedar	Management Zones	6.15
Type I Fish Habitat	Type I Fish Habitat & No-harvest Zone	6.17
Type II Fish Habitat	Type II Fish Habitat & No-harvest Zone	6.18
Active Fluvial Units	Active Fluvial Unit & Management Zone	6.20
Forested Swamps	Management Zone	6.34
Existing Northern Goshawk Reserves	Reserve	6.50
New Northern Goshawk nesting No-Harvest Zones	No-harvest Zone	6.51

## **Annual Reporting and Data Submission**

Section 6.62 applies to FDU A.

### **LUO s. 5, 6, 7, 8, 9, 10, 11, 12, 15, 16, 17 and 23**

6.62 Where applicable features prescribed under the LUO are identified (refer to Table 10, below), 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 31<sup>st</sup> of each year to the Council of the Haida Nation and to the Province of BC.

**Table 10: Summary for LUO Objectives Requiring Annual Reporting and Data Submission**

<b>Objective Requiring Annual Reporting &amp; Data Submission</b>	<b>Reporting Element</b>	<b>FSP Section Reference</b>
Class 1 HTHFs	HTHF & No-harvest Zone	6.5
Class 2 HTHFs	HTHF & No-harvest Zone	6.6
Class 1 HTFFs	HTFF & No-harvest Zone	6.7
Class 2 HTFFs	HTFF & applicable Stand Level Retention	6.8
Class 3 HTFFs	HTFF & applicable Stand Level Retention	6.9
Cedar Retention	Cedar Retention Areas	6.10
Western Yew Retention	Western Yew Patches, individual yew tree retention, & applicable stand level retention	6.13, 6.14
Cultural Cedar Stands, CMTs & Monumental Cedar	Cultural Cedar Stands, CMTs, Monumental Cedar, Reserves, No-harvest Zones & Management Zones	6.15, 6.16
Type I Fish Habitat	Type I Fish Habitat, No-harvest Zone & applicable Management Zone	6.17
Type II Fish Habitat	Type II Fish Habitat, No-harvest Zone & Management Zone	6.18, 6.19
Active Fluvial Units	Active Fluvial Unit & Management Zone	6.20, 6.21, 6.22
Forested Swamps	Forested Swamp & Management Zone	6.34
Ecological Representation	Old Forest Reserves	6.38
Red & Blue-listed Plant Communities	Red & Blue-listed Plant Communities	6.41, 6.42, 6.43
Black Bear Dens	Black Bear Dens (existing & newly discovered)	6.44
Forest Reserves	Forest Reserves	6.59, 6.60

## **Objectives Prescribed Under FRPA**

**FRPA s. 149; FPPR s. 5-10**

Sections 6.63 through 6.76 apply to FDU A.

### **Soils**

**FPPR s. 5 (not subject to approval)**

6.63 The Plan Holders undertake (FPPR s. 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.

### **Riparian Areas**

**FPPR s. 8**

#### **Stream Riparian Classes**

**FPPR s. 47**

Stream riparian classes and associated riparian reserve and management zones are as defined under the LUO and addressed under the Sections 6.17 through 6.19, and 6.23 through 6.28 above, as well as Section 6.66, below.

As the LUO does not specify an RMA width for Upland Streams, for the purposes of Sections 6.66 and 6.68 below, the RMZ/ RMA width will be 30m.

#### **Wetland Riparian Classes**

**FPPR s. 48**

6.64 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.

#### **Lake Riparian Classes**

**FPPR s. 49**

6.65 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.

#### **Restrictions in a Stream, Wetland or Lake Riparian Management Area**

**FPPR s. 50**

6.66 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.

#### **Restrictions in a Wetland or Lake Riparian Reserve Zone**

**FPPR s. 51**

6.67 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.

## **Retention of Trees within the Riparian Management Zones**

### **FPPR s. 12(3)**

6.68 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.

## **Community Watersheds**

### **FPPR s. 8.2**

6.69 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.

6.70 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.

## **Wildlife & Biodiversity – Landscape Level**

### **FPPR s. 9**

#### **Maximum Cutblock Size**

### **FPPR s. 64**

6.71 The Plan Holders undertake (FPPR s. 12.1(3)) to comply with the legislated requirements in relation to maximum cutblock size (FPPR s. 64).

#### **Adjacency**

### **FPPR s. 65**

6.72 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.

6.73 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:

- 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
- 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.

## **Wildlife & Biodiversity – Stand Level**

### **FPPR s. 9.1**

#### **Wildlife Tree Retention and Harvest Restrictions**

### **FPPR s. 66, 67 (not subject to approval)**

6.74 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.

## **Cultural Heritage Resources**

### **FPPR s. 10**

In addition to the requirements established under Sections 6.1 to 6.16 above, the Plan Holders will implement the results and strategies listed in Sections 6.75 to 6.76, below.

#### **Information Sharing**

6.75 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.

## **Development Area Referral**

6.76 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.

## **Objectives Established Under Regulation (GAR)**

Sections 6.77 through 6.82 apply to FDU A.

### **Visual Quality**

**FPPR 9.2, GAR s. 7(2), FRPA s. 180, 181**

Visual Quality Objectives (VQO's)<sup>2</sup> have been established for the Scenic Areas on the Haida Gwaii (mapping consolidated for TSA and TFLs on December 5, 2005).

6.77 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:

- a) it is to recover timber damaged from natural causes and the action must be completed expeditiously; or
- b) the activities are otherwise required by government.

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.

### **Recreation Resources**

**FRPA s. 180, 181**

As of the date of Plan submission, there are five recreation sites and four recreation trails established (no interpretive sites established), with designated objectives, within the Plan Area, (refer to Table 2, above).

6.78 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.

6.79 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:

- 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; or
- b) 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.

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2 For clarity, definitions for the VQOs (Preservation, Retention, Partial Retention, Modification and Maximum Modification) are taken to be the same as those provided for similarly named categories of visually altered forest landscapes, in FPPR s.1.1.

## **Resource Features**

### **GAR s. 5 (excluding Cultural Heritage or Recreation Resources) – not subject to approval**

Karst Resource Features have been established (effective September 15, 2006) for the Haida Gwaii Forest District. The order identifies the following surface or subsurface elements of a karst system as Resource Features:

- karst caves, and
- significant surface karst features, and
- very high or high vulnerability karst terrain

“Karst Features” have also been identified as Class 2 Haida Traditional Heritage Features within the LUO.

6.80 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).

## **Other Items**

### **Wildlife Habitat Areas and General Wildlife Measures**

#### **FPPR s. 9, 69 (not subject to approval)**

##### **Marbled Murrelets (WHAs)**

Two WHAs (for Marbled Murrelets) have been established within the Plan Area by Order of the Minister (6-041 and 6-046), established April 7, 2003.

6.81 In respect of the WHAs, the Plan Holders will comply with the applicable GWMs, as per FPPR s. 69.

##### **Queen Charlotte/ Northern Goshawk (WHAs)**

Two WHAs (for Queen Charlotte/ Northern Goshawk) have been established within the Plan Area by Order of the Minister (6-001 and 6-002), established September 13, 2001 and May 14, 2003 respectively.

6.82 In respect of the WHAs, the Plan Holders will comply with the applicable GWMs, as per FPPR s. 69.

## 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**

Common Name	Scientific Name	High Priority Invasive Plant Species on the Haida Gwaii?
Gorse	<i>Ulex europaeus</i>	Y
Scotch Broom	<i>Cytisus scoparius</i>	Y
Japanese Knotweed	<i>Polygonum cuspidatum</i>	Y
Yellow Flag Iris	<i>Iris pseudacorus</i>	Y
Common Tansy	<i>Tanacetum vulgare</i>	Y
Meadow Hawkweed	<i>Hieracium pilosella</i>	Y
Orange Hawkweed	<i>Hieracium aurantiacum</i>	Y
Marsh Plume Thistle	<i>Cirsium palustre</i>	Y
Tansy Ragwort	<i>Senecio jacobaea</i>	Y
Himalayan Knotweed	<i>Polygonum polystachyum</i>	Y
Spotted Hawkweed	<i>Hieracium maculatum</i>	Y
Canada Thistle	<i>Cirsium arvense</i>	
Bull Thistle	<i>Cirsium vulgare</i>	
Common Burdock	<i>Arctium minus</i>	
Oxeye Daisy	<i>Chrysanthemum leucanthemem</i>	

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:

### Training

- 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.

### Monitoring & Reporting

- 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.
- 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.

### Sanitation & Disposal

- 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.
- 7.5 Where invasive plant material is disposed of it will be disposed of in a landfill or by burning, to the extent practicable.

## **Re-vegetation**

- 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:
- a) re-vegetate the exposed area as climatic and soil conditions allow and within one year of disturbance, if:
    - i) the disturbed area is not to be reforested and is not the running surface of a road; and
    - ii) the soil disturbance is likely to result in the introduction or spread of the established invasive plants; and
    - iii) 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; and
  - 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.
- 7.7 For re-vegetation, Plan Holders will use Common No. 1 Forage Mixture (according to Canada's Seeds Regulations), or better.

## **Roadside Brushing**

- 7.8 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).

## 8.0 Stocking Standards

FRPA s. 29, FPPR s. 16, 44

Sections 8.1 through 8.5 apply to FDU A.

### Stocking Standards - General

FPPR s. 44

- 8.1 FPPR s. 44(1) applies in all situations or circumstances under the Plan where a free growing stand is required to be established under FRPA s. 29.
- 8.2 For the purposes of FPPR. s 44(1a) and (b), Appendices C and D specify the regeneration date, free growing height and stocking standards for the situations or circumstances where FPPR s. 44(1) applies.

Stocking Standards for development areas with Free Growing obligations have been provided in Appendices C and D. Stocking standards are to be assigned and documented within Site Plans, by the prescribing Forester.

### Special Forest Products Stocking Standards

FPPR s. 16(4)

Plan Holders may implement programs for special forest products, including shake, shingle, cant, and whole logs. The special forest products programs will involve the harvest of dead and down wood only. Plan Holders will implement the special forest products programs under designated salvage permits or licenses.

- 8.3 Where harvesting of special forest products (FPPR s. 44(3)(i)) occurs, stocking standards will be applied as follows:
- a) Where areas are subject to a Site Plan and associated stocking standards, the designated standards will be implemented or maintained.
  - b) Where there is no Site Plan, the following standards will apply to the area:
    - i) the harvest activities will not cause the total yield for the standards unit to be less than the yield had the harvesting not occurred; and
    - ii) at the conclusion of the harvesting, a species composition will retained in the standards unit that is substantially the same as the species composition of the standards unit immediately prior to the harvesting; and
    - iii) at the conclusion of the harvesting, leave tree health and vigour in the standards unit will be substantially the same as it was immediately prior to the harvesting.

There are no reforestation requirements for special forest products cutting. Justification for the special forest products cutting will be documented within the Site Plan (where a Site Plan is required).

### Single Entry Dispersed Retention System Stocking Standards

- 8.4 In circumstances where non-timber values and objectives are the primary management focus, the Single Entry Dispersed Retention System standard may be applied including:
- Where Visual Quality Objectives are Preservation, Retention or Partial Retention
  - Where Terrain Stability is an over-riding concern
  - Where wind-firmness is an over-riding concern
  - Where riparian management is the primary objective
  - Where the clear-cut with reserves silviculture system is precluded due to constraints related to the LUO
  - Where habitat enhancement is the primary objective
  - Where protection of resource features is the primary objective
  - Where forest ecosystem restoration or enhancement is the primary objective

Where Plan Holders implement the SEDRS stocking standard, on an annual basis, the area harvested under the SEDRS standard will not exceed 10% of the AAC for FDU A, apportioned amongst the Plan Holders proportional to their respective AACs.

In order to address the silvicultural obligations associated with these situations, the Single Entry Dispersed Retention System stocking standard has been included (Appendix D).

Management objectives for areas where the Single Entry Dispersed Retention System is applied should be duly noted in the Site Plan and supporting documents prior to harvesting activities. The Single Entry Dispersed Retention System is only applicable to conifer management, not hardwoods.

Sampling procedures for the single entry dispersed retention system have been included to ensure that these standards are not applied in inappropriate circumstances. Specifically, these standards are to be applied where the residual basal area within a selected harvest area is >5 to <40 m<sup>2</sup>/ha and the contiguous opening size is ≥ 1.0ha in size.

### Stocking Standard Application

For clarity, Table 12 below has been provided to help illustrate the instances where the Even Aged and Single Entry Dispersed Retention standards are to be applied.

**Table 12: Stocking Standards Application**

Contiguous Opening Size for Standard Unit (ha)	Standard Unit Basal Area Retention (m <sup>2</sup> /ha)	Applicable Stocking Standard
0.1 - 0.9	> 5 to < 40	SEDRS
0.1 - 0.9	≤ 5	Even-Aged <sup>3</sup>
≥ 1.0	≥ 40	-
≥ 1.0	> 5 to < 40	SEDRS
≥ 1.0	≤ 5	Even-Aged

### Standards Applying to Pre-FSP Plans and Prescriptions

#### FRPA s. 197

- 8.5 For cutblocks where stocking standards set out in the Code or in a pre-Code prescription would otherwise apply (including a Site Plan, Silviculture Prescription or Pre-harvest Silviculture Prescription), the FSP Holder may elect to, for the purposes of otherwise specifying stocking standards under FRPA s. 197(4, 5 or 7) within an FDU as specified by FPPR s. 14(1)(d or e) and where ecologically appropriate, have stocking standards approved under this Plan apply to standards units within such cutblocks. For each standards unit, this election is to be made<sup>4</sup> prior to the previously specified Late Free Growing date by electronically updating the Ministry’s RESULTS system to indicate the replacement FSP standard and providing notice to the Ministry of Forests, Haida Gwaii Forest District (by way of e-mail or some similar method).

<sup>3</sup> Where a small opening (0.1-0.9ha) is associated with a larger partial cut standard unit, the SEDRS standard may apply.

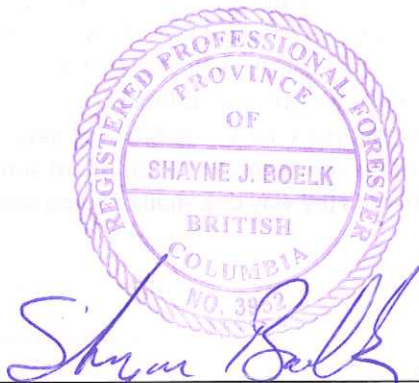
<sup>4</sup> The official date of change (i.e., the date the new standards will apply) will be the date of notice submission to the MOF.

## 9.0 Signatures of Persons Required

### Plan Holders & Authorized Plan Holder Signatures

Plan Holder	Authorized Signatory & Title	Signature	Date
Taan Forest LP 318 – 470 Granville Street Vancouver, BC V6C 1V5 Ph: (778) 785-0124 Fx: (800) 930-2118	David Byng, RPF General Manager		<u>November 18, 2011</u>
Husby Group 6425 River Road Delta, BC V4K 5B9 Ph: (604) 940-1234 Fx: (604) 940-1236	Jonathan Fane, RPF VP Forestry & Engineering		<u>November 18, 2011</u>
BC Timber Sales – Chinook Business Area 46360 Airport Road Chilliwack, BC V2P 1A5 Ph: (604) 702-5723 Fx: (604) 702-5711	Steve deMelt, Timber Sales Manager		<u>November 18, 2011</u>
Teal Cedar Products Ltd. 17897 Trigg Road Surrey, BC V4N 4M8 Ph: (604) 587-8700 Fx: (604) 581-4104	Robert Sandberg, RPF Divisional Forester		<u>November 18, 2011</u>

### Signing Forester



Shayne J. Boelk, RPF – Consulting Forester  
Zimmfor Management Services Ltd.

Date: November 18, 2011

*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.*