

FOREST STEWARDSHIP PLAN 2016

Forest Operations

of

A&A Trading Ltd.,
Klahoose Forestry Limited Partnership and
Homalco Forestry Limited Partnership
Sunshine Coast Timber Supply Areas
Forest License A19229, A80590, A84120
and Tree Farm License 43

Consolidated version for communication purposes only¹

Version 1.1 – November 18, 2016

¹This document is a consolidated version of the A&A Trading Ltd., Klahoose Forestry Limited Partnership and Homalco Forestry Limited Partnership Forest Stewardship Plan 2016-2021 for FL A19229, FL A80590, NRFL A84120 and TFL 43. This consolidated version incorporates:

- Major Amendment #18, dated March 25, 2017,
- Major Amendment #19, dated August 9, 2018,
- Major Amendment #20, dated November 26, 2018,
- Major Amendment #21, dated February 20, 2019,
- Minor Amendment #22, dated June 4, 2020,
- Declared Areas Amendment #23, submitted under section 14(4) on June 25 and June 29, 2021, and
- Minor amendment #24, dated September 28, 2021.

While every effort has been made to ensure the accuracy and completeness of this consolidated version, readers should refer to Major Amendment #18, Major Amendment #19, Major Amendment #20, Major Amendment #21, Minor Amendment #22, Minor amendment #23 and Minor Amendment #24 to the A&A Trading Ltd, Klahoose Forestry Limited Partnership and Homalco Forestry Limited Partnership Forest Stewardship Plan as the complete and legal document.

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1 DEFINITIONS

1.1 In this FSP:

“Affected Species” means a species listed in a Notice unless, after the Date of Submission, that species is removed from the Notice;

“Agreements” means those Agreements identified in section 3.1;

“Attributes” means the attributes of an Affected Species specified in a Notice that relates to the Affected Species;

“Average Cut Block Size” for an FDU, cutting permit or other geographical or administrative unit means the total net area to be reforested associated with that unit divided by the total number of openings.

“Commencement Date” means the commencement date of the Term of this FSP as specified in Part 5;

“Community Watershed” means a community watershed as defined in section 7.2.5(1) of this FSP.

“Date of Submission” means the date of submission of this FSP as specified in Part 2;

“District” means the Sunshine Coast Natural Resource District;

“ECA” or **“Equivalent Clearcut Area”** means that portion of a watershed that has been harvested, cleared or burned and that, when consideration is given to the silviculture system, regeneration growth, the location of the area in the watershed, or other similar factors, is not 90% hydrologically recovered;

“Established Objective” means:

- (a) an objective continued under section 181 of the FRPA,
- (b) an objective set by government under sections 5-10 of the FPPR;
- (c) a land use objective; and
- (d) an objective established under the Government Action Regulation as of the Date of Submission.

“FDP” means a forest development plan under the FPC;

“FDU” refers to a forest development unit under this FSP;

“Fisheries Sensitive Watershed” means a fisheries sensitive watershed as defined in section 7.2.4(1) of this FSP;

“FPC” means the “Code” and “Code regulations” as those terms are defined in subsection 177(1) of FRPA;

“FPPR” means the *Forest Planning and Practices Regulation*, B.C. Reg. 14/2004 made pursuant to FRPA, as that regulation existed on the Date of Submission;

“FRPA” means the *Forest and Range Practices Act*, S.B.C. 2002, c.69 as that legislation existed on the Date of Submission;

“FSP” means this Forest Stewardship Plan, including all tables, appendices and attachments;

“FSP Map” means the attached Maps;

“Goshawk Management Area” means the area spatially defined on the FSP Map;

“Green-up” means a state of regeneration in a stocked cutblock that meets the following standards:

(a) the average height of the tallest 10% of the trees on the area to be reforested is a minimum of 3.0 m;

(b) the area contains at least 500 trees/ha. of a commercially valuable species that are at least 1.3 m. in height;

“Holder” means the holder and the agreements as identified in section 3.1, table 1;

“Mature Forest” means forest that is ≥ 141 years old and ≤ 250 years old;

“Maximum Cut Block Size” means when working in a designated community watershed the net area to be reforested is 40 ha;

“MTHLB” means the mature timber harvesting land base in the District, as identified from the timber supply review 2 for the management unit within the District;

“Notice” means a notice given to the Holder by the Date of Submission pursuant to section 7(2) of the FPPR;

“Notice Criteria” means the distribution and Attributes for the Affected Species specified in a Notice;

“Old Forest” means forest that is >250 years old;

“Old Growth Management Area” means an area of Old Forest or Old forest plus Mature Forest \geq 2 ha. in size meeting the criteria in an Order;

“Order” means an order made pursuant to the Code or FRPA and the regulations made there under and provided to the Holder by the Date of Submission and referenced in an Objective, or a Result or Strategy in this FSP;

“RMA” means a riparian management area;

“RMZ” means a riparian management zone;

“RRZ” means a riparian reserve zone;

“Site Plan” means a site plan as contemplated in FRPA;

“Tailed Frog Core Area” means an area immediately adjacent to a stream that is not more than 30 m in width, where the Holder knows the tailed frog is present;

“Tailed Frog Management Area” means an area spatially defined on the FSP Map that will be managed for the tailed frog;

“Total Habitat Required” means the total amount of habitat for an Affected Species specified in the Notice;

“Total Mature Timber Harvesting Land Base Impact” means the maximum amount of impact on the mature timber harvesting land base specified in a Notice;

“Total Old Forest Required” means the total amount of Old Forest and/or Mature Forest for each biogeoclimatic variant within a designated landscape unit and assigned natural disturbance type specified in an Order.

“UWR” means ungulate winter range;

“Visual Landscape Inventory” means the visual landscape inventory completed by the Ministry of Forests and used in its “Timber Supply Review 2”;

“VQO” means a visual quality objective.

2 DATE OF SUBMISSION

The Date of Submission of this FSP is October, 2016.

3 APPLICATION OF THIS FSP (FRPA S.3(4))

3.1 Holder and Agreements that Apply

This FSP applies to the Agreements listed in Table 1 and cutting permit or road permit issued or granted to the Holder:

- a) after the Commencement Date; and
- b) within the FDUs.

Table 1. Application of this Forest Stewardship Plan

Holder	Agreement
A&A Trading Ltd.	FL A19229
A&A Trading Ltd.	FL A80590
Klahoose Forestry Limited Partnership	NRFL A84120
Homalco Forestry Limited Partnership	TFL 43

4 TERM OF THE FSP (FRPA S.6(1)(A))

The term of this FSP is five years.

5 COMMENCEMENT OF TERM (FRPA S.6(1)(B))

The term of this FSP commences on the date specified in writing by the Minister or his delegated decision maker in approving the plan.

6 MAP (FRPA S.5(1)(A) AND FPPR S.14)

The FSP Map appended to this document shows the FDUs and other features of the FSP area at a 1:50,000 scale.

6.1 FDUs in Effect on the Date of Submission of This FSP (FPPR s.14(1)(b))

FDUs in effect on the Date of Submission of this FSP are Sechelt, Salmon, Jervis, Homfray, Cortes, Quatam, Homathko, Frog, **West Jervis and Mit Creek.**

6.2 Designation in Effect Four Months Prior to the Date of Submission of this FSP (FPPR s.14(2)(ii))

The FSP Map shows the designations and other things described in s.14(3) of the FPPR that were in effect four months prior to the Date of Submission.

6.3 Areas Within the Outer Boundaries of FDUs Subject to Cutting Permit or Road Permit, but not Subject to This FSP (FPPR s.14(3)(j))

The FSP Map shows the areas within the outer boundaries of the FDUs that are subject to a cutting permit (CP) or road permit (RP) held by the Holder and in effect on the Date of Submission of the FSP for approval.

In addition to those areas on the FSP Map, the following salvage CPs are also within the outer boundaries of the FDUs and are therefore considered approved:

Table 2 Salvage Cutting Permits

Holder	Agreement	Cutting permit
A&A Trading Ltd.	FL A19229	Salvage Cutting Permit 101
A&A Trading Ltd.	FL A19229	Salvage Cutting Permit 78

Other roads shown on the FSP Map are for reference only.

6.4 Areas Within the Outer Boundaries of FDUs that are Declared Areas under FPPR s.14(4).

The following areas are declared under FPPR Section 14(4):

R330, R331A, R331B, R332, R333, R334, R335, R336, R336A, R337, R338, R339, R340, R341A, R341B, R342, RA108, H1000, H2001, H2003, H3006, H3008, H3009, H3010, H4002H, H4004, H4005, H4009, H5001E, T3, T4, T5, T6, T9, T10, T12, T12A, T12B, S429, N131, N133, N134, C21, C41, S103, M8H, M10H, M11H, M12H, M20H, M21H, S321, S440, S4204, S2206 and S2207.

7 UNDERTAKINGS, RESULTS AND STRATEGIES

7.1 Land Use Objectives

7.1.1 The following objectives were established or continued under sections 3 to 5 of the FPC.

7.1.2 Order Establishing Provincial Non-Spatial Old Growth Objectives

The “Order Establishing Provincial Non-Spatial Old Growth Objectives”, (effective June 30, 2004), clarifies the amount of area available for timber harvesting. This order supplements, but does not replace, FPPR S.9. Refer to Appendix 2 – “Order Establishing Provincial Non-Spatial Old Growth Objectives”, for details.

FDU	Result or Strategy
Mit Creek	<p>Approach to Harvesting and Roads</p> <p>1.1 The Holder will, when constructing a road or harvesting timber under this FSP, do so in a manner consistent the “Order Establishing Provincial Non-Spatial Old Growth Objectives” (effective June 30, 2004).</p>

7.1.3 Order(s) Establishing Landscape Unit Objectives

FDU	Result or Strategy
Sechelt, Homathko, Cortes, Homfray, Jervis, Quatam, Salmon & West Jervis.	<p>Approach to Harvesting and Roads</p> <p>1.1 The Holder will, when constructing a road or harvesting timber under this FSP, do so in a manner consistent with the following approved landscape units and Established Objectives to the extent practicable:</p> <ul style="list-style-type: none"> • "Order to Establish a Landscape Unit and Objectives - Sechelt Landscape Unit", August 16, 2004; • "Order to Establish a Landscape Unit and Objectives – Cortes Landscape Unit", July 10, 2012; • "Order to Establish a Landscape Unit and Objectives – Homfray, Jervis, Quatam, Salmon Inlet Landscape Units", December 22, 2014; • "Order to Establish a Landscape Unit and Objectives - Homathko Landscape Unit", September 27, 2001,

	<ul style="list-style-type: none"> • “Order to Establish a Landscape Unit and Objectives – Britain Landscape Unit”, July 10, 2012, <p>The Established Objectives for the above landscape units are comprised of measurable or verifiable steps, processes or outcomes and thus form the strategy. A copy of the Established Objective(s) for each landscape unit can be found in Appendix 2.</p>
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7.2 Objectives Prescribed Under FRPA Section 149

7.2.1 Soils (FPPR section 5)

The objective set by government for soils is, without unduly reducing the supply of timber from British Columbia’s forests, to conserve the productivity and the hydrologic function of soils.

FDU	Undertaking Under FPPR Section 12.1(1)
All	The Holder, when constructing a road or harvesting timber under this FSP, undertakes to comply with section 35 and section 36 of the FPPR.

7.2.2 Wildlife (FPPR section 7)

The objective set by government for wildlife is, without unduly reducing the supply of timber from British Columbia’s forests, to conserve sufficient wildlife habitat in terms of the amount of area, distribution of areas and attributes of those areas, for

- a) the survival of species at risk,
- b) the survival of regionally important wildlife, and
- c) the winter survival of specified ungulate species.

FDU	Result or Strategy - Marbled Murrelet (<i>Brachyramphus marmoratus</i>)
Sechelt, Salmon, Jervis, Cortes, Quatam, Homfray Homathk, West Jervis and Mit Creek	<p>Approach to Harvesting and Roads</p> <p>1.1 Subject to paragraphs 1.2 to 1.5, the Holder will not harvest timber, and will not construct a road unless there are no other practicable options to construct a road, and there is agreement from the Ministry of Environment to do so, in an area within the FDU that:</p> <p>Part 1</p> <p>(a) is subject to a Notice;</p> <p>(b) meets the Notice Criteria; and</p>

- (c) is spatially defined on the FSP Map as a Marbled Murrelet Management Area following a survey conducted by a qualified professional and determined to be suitable class 1, 2 or 3 habitat in the non-contributing; or
- (d) class 1, 2 or 3 habitat in approved Old Growth Management Areas; or
- (e) class 1, 2 or 3 habitat in the MTHLB or

Part 2

If the Holder of this FSP harvests a cutblock in the areas to which the Notice given March 2, 2006 under S. 7(2) of the FPPR (the "Notice") for the Sunshine Coast Natural Resource District applies, the Holder of this FSP will do so not harvesting marbled murrelet habitat described as the following amount, distribution, and attributes:

- (a) in areas under the FSP where a detailed survey has been conducted:
 - i) Amount: Class 1, 2 or 3 Marbled Murrelet habitat which was present in the non-contributing land base at the time the Notice was given, an amount of suitable Marbled murrelet nesting habitat within Old Growth Management Areas consistent with the direction from landscape unit planning and an amount of suitable nesting habitat to a maximum net mature harvesting land base impact of 495 ha; and
 - ii) Distribution: Where the habitat occurs on the land base; and
 - iii) Attributes: Class 1, 2 or 3 marbled murrelet habitat, as described in *Standard Methods for Identifying Marbled Murrelet Habitat in British Columbia Using Air Photo Interpretation and Low-level Aerial Surveys*.

Part 3

Where an inventory has not been completed for an FDU, the Holder will not harvest timber, and will not construct a road unless the proposed area has been assessed by a qualified professional and deemed not to be class 1, 2 or 3 habitat.

Amount of Area Affected

1.2 Subject to paragraph 1.3, the amount of area subject to paragraph 1.1 is the area within the Total Habitat Required.

Adjustments to the Amount of Area Affected

1.3 The amount of area referred to in paragraph 1.2 will be reduced if, when and to the extent that:

	<p>(a) a wildlife habitat area with general wildlife measures is established for the species that reduces the Total Habitat Required; or</p> <p>(b) a wildlife habitat area with objectives is established for the species that is located in an FDU that is not part of this FSP that reduces the Total Habitat Required; or</p> <p>(c) a wildlife habitat area with objectives is established within an FDU that is included in this FSP for the species and a result or strategy is approved as part of this FSP for that objective that reduces the Total Habitat Required.</p> <p>1.4 If the amount of habitat for the species specified in the Notice is addressed, then the strategy will not apply to areas beyond that amount.</p> <p>1.5 If, after the Date of Submission of this FSP, an exemption is provided under FPPR s.7(3) that relates to this strategy, then the strategy no longer applies to the extent and effective on the date of the exemption.</p>
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FDU	Result or Strategy - Northern Goshawk (<i>Accipiter gentilis laingi</i>)
Cortes FDU	<p>Approach to Harvesting and Roads</p> <p>1.1 Subject to paragraphs 1.2 to 1.5, the Holder will not harvest timber within an area in the FDU that:</p> <ul style="list-style-type: none"> (a) is subject to a Notice; (b) meets the Notice Criteria; and (c) is within a spatially defined Goshawk Management Area; <p>the Holder will:</p> <ul style="list-style-type: none"> (d) not construct a road in a Goshawk Management Area between February 15th and September 1st, without the agreement of the Ministry of Forests, Lands and Natural Resource Operations. <p>Amount of Area Affected</p> <p>1.2 Subject to paragraph 1.3, the amount of area subject to paragraph 1.1 is the area within the Total Habitat Required.</p> <p>Adjustments to the Amount of Area Affected</p> <p>1.3 The amount of area referred to in paragraph 1.2 will be reduced if, when and to the extent that:</p> <ul style="list-style-type: none"> (a) a wildlife habitat area with general wildlife measures is established for the species that reduces the Total Habitat Required; or

	<p>(b) a wildlife habitat area with objectives is established for the species that is located in an FDU that is not part of this FSP that reduces the Total Habitat Required; or</p> <p>(c) a wildlife habitat area with objectives is established within an FDU that is included in this FSP for the species and a result or strategy is approved as part of this FSP for that objective that reduces the Total Habitat Required.</p> <p>1.4 If the amount of habitat for the species specified in the Notice is addressed, then the strategy will not apply to areas beyond that amount.</p> <p>If, after the Date of Submission of this FSP, an exemption is provided under FPPR s.7(3) that relates to this strategy, then the strategy no longer applies to the extent and effective on the date of the exemption.</p>
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FDU	Result or Strategy - Coastal Tailed Frog (<i>Ascaphus truei</i>)
Tailed Frog	<p>Approach to Harvesting and Roads</p> <p>1.1 Subject to paragraphs 1.2 to 1.5, the Holder will not harvest timber in an area within the FDU that:</p> <ul style="list-style-type: none"> (i) is subject to a Notice; (ii) meets the Notice Criteria; and (iii) is spatially defined as a Tailed Frog Management Area located on the FSP Map. <p>(a) If the Holder constructs a road through a Tailed Frog Management Area located on the FSP Map then the Holder will:</p> <ul style="list-style-type: none"> (i) construct road in the Tailed Frog Core Area that minimizes the road right of way width to the extent practicable; and (ii) is done in a manner that minimizes, to the extent practicable, the amount of sediment entering the stream channel. <p>Amount of Area Affected</p> <p>1.2 Subject to paragraph 1.3, the amount of area subject to paragraph 1.1 is the area within the Total Habitat Required.</p> <p>Adjustments to the Amount of Area Affected</p> <p>1.3 The amount of area referred to in paragraph 1.2 will be reduced if, when and to the extent that:</p> <ul style="list-style-type: none"> (a) a wildlife habitat area with general wildlife measures is established for the species that reduces the Total Habitat Required; or (b) a wildlife habitat area with objectives is established for the

	<p>species that is located in an FDU that is not part of this FSP that reduces the Total Habitat Required; or</p> <p>(c) a wildlife habitat area with objectives is established within an FDU that is included in this FSP for the species and a result or strategy is approved as part of this FSP for that objective that reduces the Total Habitat Required.</p> <p>1.4 If the amount of habitat for the species specified in the Notice is addressed, then the strategy will not apply to areas beyond that amount.</p> <p>1.5 If, after the Date of Submission of this FSP, an exemption is provided under FPPR s.7(3) that relates to this strategy, then the strategy no longer applies to the extent and effective on the date of the exemption.</p>
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7.2.3 Water, Fish, Wildlife and Biodiversity in Riparian Areas (FPPR Section 8)

The objective set by government for water, fish, wildlife and biodiversity within riparian areas is, without unduly reducing the supply of timber from British Columbia's forests, to conserve, at the landscape level, the water quality, fish habitat, wildlife habitat and biodiversity associated with those riparian areas.

FDU	Undertaking Under FPPR Section 12.1(2) and/or 12.3
All	When constructing a road or harvesting timber under this FSP, the Holder undertakes to comply with section 47, 48, 49, 50, 51, 52, and 53 of the FPPR, subject to conditional exemption.

Removed:

FDU	Result or Strategy for Conditional Exemption Under FPPR Section 12.3(1)
All, Except Community Watersheds	<p>Approach to Harvesting</p> <p>1.1 The Holder will, when harvesting timber under this FSP, do so in a manner consistent with:</p> <p>(a) FPPR s-s 47(4); or</p> <p>(b) if a qualified professional determines that a different RRZ width is more practicable and:</p> <p>(i) reducing or increasing the RRZ provides the flexibility to establish a RRZ buffer; that</p> <p>(ii) reflects the Factors listed in FPPR Schedule 1, S.2; and</p>

	<p>(iii) the new RRZ is not less than 50% of the default RRZ provided in FPPR s-s47(4); then</p> <p>(iv) the RRZ located in the field and confirmed in a plan or on a map becomes the new RRZ width.</p>
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FDU	Result or Strategy for Conditional Exemption Under FPPR 12.3(4) & 12.3(5) for Enhancement Activities
All	<p>1.1 Subject to paragraph 1.2, the Holder, in addition to the purposes granted under s.51(1)(a, b, c, d, e, f, g, h, i), is exempt from s.51(1), if the activities proposed in a RRZ are designed to:</p> <ul style="list-style-type: none"> a) enhance wildlife values, b) enhance fisheries values, or c) enhance biodiversity values. <p>1.2 Prior to enhancement activities for wildlife, fisheries or biodiversity values in a RRZ the Holder will:</p> <ul style="list-style-type: none"> (i) develop a plan for the proposed enhancement works; (ii) have the plan signed by a qualified professional; and (iii) implement the prescribed measures in accordance with the plan or as amended.

FDU	Result or Strategy for Conditional Exemption Under FPPR 12.3(5) for Harvesting Activities
All	<p>Approach to Harvesting</p> <p>1.1 Subject to paragraphs 1.2, the Holder, in addition to the purposes granted under s.51(1)(a, b, c, d, e, f, g, h, i), is exempt from 51(1), if the activities proposed in the RRZ are for the purposes of:</p> <ul style="list-style-type: none"> (a) harvesting timber on the upslope side of a road that has been constructed in the RMA and is located between the road and cutblock. <p>1.2 Prior to removing tree(s) on the upslope side of a road within the RRZ, the Holder, will:</p> <ul style="list-style-type: none"> (i) only remove tree(s) from the area included in the RRZ if the removal of tree(s), as determined by a qualified professional, will not have a material adverse effect on the water, fish, wildlife and biodiversity as compared to other options; and (ii) establish the RRZ at the edge of the road right of way located closest to the stream.

FDU	Result or Strategy for Retention of Trees in a Riparian Management Zone FPPR s.12(3)
All	<p>Approach to Harvesting</p> <p>1.1 The Holder will, when harvesting timber in a Riparian Management Zone (RMZ), specify varying amounts of retention that will be maintained in the RMZ.</p> <p>1.2 The amount and types of trees to be retained in the RMZ will be:</p> <ul style="list-style-type: none"> (i) determined in the field by a qualified professional; and (ii) be specified in a plan prior to harvesting timber; and (iii) will reflect the factors outlined in FPPR Schedule 1, S.2.

7.2.4 Objectives Set by Government for Fish Habitat in Fisheries Sensitive Watersheds (FPPR 8.1)

- 1) “Fisheries Sensitive Watershed” means an area identified in Schedule 2 of the FPPR,
 - a) with significant downstream fisheries values continued under section 180 (f) of the FRPA and significant watershed sensitivity continued under section 180 (g) of the FRPA, and
 - b) for which there is no fisheries sensitive watershed objective.
- 2) Until December 31, 2005 the objective set by government for fish habitat in fisheries sensitive watersheds is to prevent to the extent described in subsection (3) the cumulative hydrological effects of primary forest activities in the fisheries sensitive watershed from resulting in a material adverse impacts on the habitat of the fish species for which the fisheries sensitive watershed was established.
- 3) The objective set by government under subsection (2) applies only to the extent that it does not unduly reduce the supply of timber from British Columbia’s forests.
- 4) If satisfied that the objective set out in subsection (2) is not required to provide special management, the minister responsible for the *Wildlife Act* must exempt a person from the requirement to specify a result or strategy in relation to the objective.
- 5) If satisfied that the objective set out in subsection (2) is addressed, in whole or in part, by an enactment, the minister responsible for the *Wildlife Act* must exempt a person from the requirement to specify a result or strategy in relation to the objective set out in subsection (2) to the extent that the objective is already addressed.

FDU	Result or Strategy – Fisheries Sensitive Watersheds
None	No Fisheries Sensitive Watersheds are included within any of the FDUs.

7.2.5 Objectives Set by Government for Water in Community Watersheds (FPPR 8.2)

1. “Community Watershed” means a community watershed
 - a. that is continued under section 180 (e) of the FRPA, and
 - b. for which a water quality objective has not been
 - i. continued under section 181 of the FRPA, or
 - ii. established under the Government Actions Regulation.
2. The objective set by government for water being diverted for human consumption through a licensed waterworks in a community watershed is to prevent to the extent described in subsection (3) the cumulative hydrological effects of primary forest activities within the community watershed from resulting in
 - a. a material adverse impact on the quantity of water or the timing of the flow of the water from the waterworks, or
 - b. the water from the waterworks having a material adverse impacts on human health that cannot be addressed by water treatment required under
 - i. an enactment, or
 - ii. the license pertaining to the waterworks.
3. The objective set by government under subsection (2) applies only to the extent that it does not unduly reduce the supply of timber from British Columbia’s forests.
4. If satisfied that the objective set out in subsection (2) is not required to provide special management, the minister responsible for the *Wildlife Act* must exempt a person from the requirement to specify a result or strategy in relation to the objective.
5. If satisfied that the objective set out in subsection (2) is addressed, in whole or in part, by an enactment, the minister responsible for the *Wildlife Act* must exempt a person from the requirement to specify a result or strategy in relation to the objective set out in subsection (2) to the extent that the objective is already addressed.

FDU	Result or Strategy - Community Watersheds
Sechelt, Quatam & Jervis	<p>Approach to Harvesting and Roads</p> <p>1.1 Subject to paragraphs 1.2 to 1.3:</p> <p>(a) The Holder, when constructing, maintaining or deactivating a road or harvesting timber in a Community Watershed will comply with the following;</p>

	<p>Harvesting:</p> <p>(i) The ECA for community watersheds > 250 Ha. will not exceed 30%, considering important elevation bands; or</p> <p>(ii) for small community watersheds ≤ 250 Ha. will not exceed 10% ECA in five years.</p> <p>(ii) The Maximum Cut Block Size is ≤ 40 Ha.; with</p> <p>(iii) the Average Cut Block Size ≤ 20 Ha.</p> <p>Roads:</p> <p>(i) Permanent access structures required to harvest cutblocks will comply with FPPR s.36.</p> <p>(ii) All roads or road sections located within community watersheds will be risk rated by a qualified professional. Applicable construction techniques will be applied to each road or road section depending on the risk rating. Risk rating will be determined based on a matrix of consequence and hazard. Appropriate actions may include but is not limited to:</p> <ul style="list-style-type: none"> • end hauling of overburden and spoil materials; • construction of ditches and installation of culverts concurrent with road construction; • grass seeding of cut & fill slopes; and • the use of geo-textile materials where appropriate. <p>(iii) All bridge and major culvert installation will follow the Guidelines for Professional Services in the Forest Sector – Crossings, prepared by the Association of Professional Engineers and Geoscientists of B.C. and Association of B.C. Professional Foresters, dated March 2005.</p> <p>(iv) All roads located on class iv or v terrain will have a terrain stability report completed by a qualified professional prior to construction.</p> <p>(c) FPPR section(s) 47 to 51, 52(2), 53, 59, 60 & 61 apply as they were on the Date of Submission.</p> <p>Amount of Area Affected</p> <p>1.2 Subject to paragraph 1.3, the amount of area subject to paragraph 1.1 is the area within designated Community Watersheds.</p> <p>Adjustments to the Amount of Area Affected</p> <p>1.3 The amount of area referred to in paragraph 1.2 will be reduced if, when and to the extent that:</p> <p>(a) after the Date of Submission, the designated Community</p>
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	<p>Watershed is reduced as a result of an amendment to or replacement or cancellation of the Watershed; or</p> <p>(b) the government otherwise authorizes or requires that the area be reduced.</p>
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7.2.6 Wildlife and Biodiversity – Landscape Level (FPPR Section 9)

The objective set by government for wildlife and biodiversity at the landscape level is, without unduly reducing the supply of timber from British Columbia's forests and to the extent practicable, to design areas on which timber harvesting is to be carried out that resemble, both spatially and temporally, the patterns of natural disturbance that occur with the landscape.

FDU	Undertaking under FPPR Section 12.1(3)
All	When constructing a road or harvesting timber under this FSP, the Holder undertakes to comply with section 64 and 65 of FPPR.

7.2.7 Wildlife and Biodiversity – Stand Level (FPPR Section 9.1)

The objective set by government for wildlife and biodiversity at the stand level is, without unduly reducing the supply of timber from British Columbia's forests, to retain wildlife trees.

FDU	Undertaking Under FPPR Section 12.1(4)
Salmon, Jervis, Quatam, Cortes Homfray & West Jervis	When constructing a road or harvesting timber under this FSP, the Holder undertakes to comply with section 66(1)(3) and 67 of the FPPR.

FDU	Result or Strategy for Conditional Exemption Under FPPR Section 12.5(1) – Wildlife Tree Retention
Salmon, Jervis, Quatam, Cortes, Homfray & West Jervis	<p>Approach to Harvesting</p> <p>1.1 The Holder will, when harvesting timber under this FSP, do so in a manner consistent with:</p> <p>(a) FPPR s-s 66(2); or</p> <p>(b) if the FDU has spatially defined Old Growth Management Areas</p>

	<p>located on the FSP Map, consistent with the amount specified in the “Order Establishing Provincial Non-Spatial Old Growth Objectives”, (effective June 30, 2004), then the following will apply:</p> <p>(i) the minimum WTP amount by cutblock is:</p> <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>Total Cutblock Area (Ha.)</th> <th>Minimum WTP % Retention</th> </tr> </thead> <tbody> <tr> <td>Cutblocks < 10 hectares in size</td> <td>0%</td> </tr> <tr> <td>Cutblocks ≥ 10 hectares in size</td> <td>3.5%</td> </tr> </tbody> </table>	Total Cutblock Area (Ha.)	Minimum WTP % Retention	Cutblocks < 10 hectares in size	0%	Cutblocks ≥ 10 hectares in size	3.5%
Total Cutblock Area (Ha.)	Minimum WTP % Retention						
Cutblocks < 10 hectares in size	0%						
Cutblocks ≥ 10 hectares in size	3.5%						

7.2.8 Visual Quality (FPPR Section 9.2)

The objective set by government in relation to visual quality for a scenic area, that was established on or before October 24, 2002, and for which there is no visual quality objective is to ensure that the altered forest landscape for the scenic area

- a) in visual sensitivity class 1 is in either the preservation or retention category,
- b) in visual sensitivity class 2 is in either the retention or partial retention category,
- c) in visual sensitivity class 3 is in either the partial retention or modification category,
- d) in visual sensitivity class 4 is in either the partial retention or modification category,
- e) in visual sensitivity class 5 is in either the modification or maximum modification category.

FDU	Result or Strategy – Scenic Areas
None	Scenic Areas covered by this FSP have established Visual Quality Objectives

7.2.9 Cultural Heritage Resources (FPPR Section 10)

The objective set by government for cultural heritage resources is to conserve, or, if necessary, protect cultural heritage resources that are

- a. the focus of a traditional use by an aboriginal people that is of continuing importance to that people, and
- b. not regulated under the Heritage Conservation Act.

FDU	Result or Strategy
All	<p data-bbox="418 233 954 268">Approach to Harvesting and Roads</p> <p data-bbox="418 268 1352 338">1.1 The Holder will, when constructing a road or harvesting timber under this FSP, do so in a manner consistent with:</p> <p data-bbox="418 380 1243 449">(a) conserving or if necessary, protecting cultural heritage resources that are;</p> <p data-bbox="467 449 1382 558">(i) the focus of a traditional use by an aboriginal people that is of continuing importance to that people, are determined to be important, valuable and scarce; and</p> <p data-bbox="467 600 1382 669">(ii) not regulated under the Heritage Conservation Act or are not conserved and protected by other arrangements; and</p> <p data-bbox="467 711 1308 781">(iii) is likely to be adversely impacted by the activities of the Holder; and</p> <p data-bbox="467 823 1320 858">(iv) is capable of being addressed in the context of this FSP.</p> <p data-bbox="418 900 1352 999">(b) A cultural heritage resource that is the focus of a continued traditional use by a First Nation and is determined to be important, valuable and proven to be scarce will be determined through:</p> <p data-bbox="477 1041 1352 1150">(i) documented information sharing between the Holder and the affected First Nation prior to the review and comment period, outlined in s.21 of the FPPR for this FSP; or</p> <p data-bbox="477 1192 1382 1262">(ii) received from the affected First Nation within the time period described in s-s 20(2) of the FPPR; or</p> <p data-bbox="477 1304 1338 1373">(iii) forwarded to the Holder, by government or affected First Nation prior to submission for approval of this FSP; and</p> <p data-bbox="477 1415 1265 1484">(iv) is consistent with the timber harvesting rights in the Agreement(s) to which this FSP pertains.</p> <p data-bbox="418 1526 1377 1659">1.2 The following process will be used to provide the affected First Nation with the opportunity to review proposed road building or timber harvesting activities, in relation to new cultural heritage resource information, prior to development occurring.</p> <p data-bbox="418 1701 1365 1799">(a) The Holder will send maps outlining proposed development areas to the affected First Nation and request new cultural heritage resource information.</p> <p data-bbox="418 1841 1382 1877">(b) New information received from the First Nation within 30 days</p>

	<p>is reviewed by the Holder, in the context to which the proposed road construction and harvesting activities will impact upon the cultural heritage resource value.</p> <p>(c) The Holder will determine what options, if any, exist to mitigate the impacts from proposed road construction and/or harvesting activities. The First Nation will be notified in writing as to what actions will be taken to conserve and/or protect identified cultural heritage resource values.</p> <p>1.3 To the extent that the criteria in paragraph 1.1 above have been met, for identified cultural heritage resource values, the following strategies apply:</p> <p>(a) Cultural Cedar</p> <p>(i) To ensure a long and mid-term supply of cedar, the Holder, will plant cedar on ecologically suitable sites within all FDUs.</p> <p>(ii) To assist in meeting current cultural cedar needs, the Holder, will not harvest cedar trees in areas spatially defined on the FSP map(s) that have been designated for purposes other than harvesting.</p> <p>(iii) In addition, the Holder, upon request will provide reasonable assistance to a First Nation to obtain an amount of monumental cedar trees, consistent with past usage, that are suitable for cultural purposes; and</p> <p>(iv) assist in identifying sites suitable for cedar bark stripping.</p> <p>(b) Medicinal Plant Species</p> <p>(i) The Holder, upon request, will provide reasonable assistance to a First Nation in the identification of potential medicinal plant species sites suitable for cultural uses; and</p> <p>(ii) once a site has been identified, and determined to be scarce, the Holder, will not harvest timber, and will not construct a road over the site unless there are no other practicable options.</p>
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7.3 Objectives Grandparented Under FRPA Section 181

7.3.1 Order Establishing Sunshine Coast Forest District Scenic Area and Visual Quality Objectives

Objective: refer to the “Sunshine Coast Forest District Scenic Area and Visual Quality Objectives” (Appendix 2)

FDU	Result or Strategy – Sunshine Coast Forest District
Sechelt, Salmon, Jervis, Cortes, Quatam, Homfray, Homathko, West Jervis and Mit Creek.	<p>Approach to Harvesting and Roads</p> <p>1.1 The Holder will, when constructing a road or harvesting timber in a scenic area, titled; “Sunshine Coast Forest District Scenic Area”, and made known to the Holder by letter(s) dated April 22, 1997 and amended effective June 4, 1999, do so in a manner consistent with:</p> <p>(i) the established Visual Quality Objective (VQO) for visual quality polygon(s) in a scenic area using good visual design and be assessed at the landform scale.</p> <p>1.2 For the purpose of paragraph 1.1 of this strategy, the visual quality polygons are those identified in the Visual Landscape Inventory for the “Sunshine Coast Forest District Scenic Area”.</p>

7.3.2 Establishment of Recreation Sites and Trails in the Sunshine Coast Forest District

The following list of recreation sites has been established under the Forest Practices Code and grandparented under S.180 of the FRPA.

Refer to the “Order(s) to Establish Recreation Sites, Recreation Trails or Interpretative Forest Sites”, for Klein Lake, Secret Cove Creek, Big Tree and Stuart Recreation Area, in the Sunshine Coast Forest District”, effective February 29, 2000, July 31, 1998 and January 28, 1999 (Appendix 2).

Recreation Sites & Trails
Klein Lake Recreation Site, Recreation Project 900-20/0134, Effective February 29, 2000
Secret Cove Creek Recreation Site, Recreation Project 900-20/0383, Effective February 29, 2000
Big Tree Recreation Site, Recreation Project 16660-20/5890, Effective July 31, 1998

Stuart Recreation Area, Recreation Project 16660-20/6604, Effective January 28, 1999.

Objective(s): Refer to the “Order(s) to Establish Objectives for a Recreation Site, Recreation Trail or Interpretative Forest Site”, in the Sunshine Coast Forest District”, effective July 31, 1998, July 31, 1999 and July 1, 2000 (Appendix 2).

FDU	Result or Strategy – Recreation Resource
Sechelt and Quatam	<p>Approach to Harvesting and Roads</p> <p>1.1 Subject to paragraphs 1.2;</p> <p>The Holder will not construct road or harvest timber within a recreation site established through Order.</p> <p>When the Holder is constructing road or harvesting timber near or adjacent to a recreation site established through Order, for which there is an Established Objective;</p> <p>(a) the Holder, will use harvesting and road construction practices such as good visual design that maintain the recreation value for which the site was intended.</p>

8 STOCKING STANDARDS

8.1 Situations or Circumstances That Determine Whether Free Growing is Assessed on a Block or Across Blocks

Section 44(1) of the FPPR applies in all situations or circumstances under the FSP where a free growing stand is required to be established under FRPA S.29.

8.2 Regeneration Date, Free Growing Height and Stocking Standards

Appendix 1 specifies the regeneration date, free growing height and stocking standards for the situations or circumstances where s-s.44(1) of the FPPR applies.

8.3 Situations or Circumstances That Determine When s-s.44(4) Applies and the Standards Applicable FPPR s-s.16(4)

Where harvesting of special forest products, intermediate cuts or commercial thinning occurs as per FRPA s-s 44(3)(h) and (i), the Stocking Standards (FSP Stocking Standards) will be maintained for a period of at least 12 months following the completion of intermediate timber harvesting on the area that the harvesting took place. These standards will apply to the following licenses held by the Holder: A19229, A80590 and A84120.

9 MEASURES TO PREVENT THE INTRODUCTION & SPREAD OF INVASIVE PLANTS

As per FPPR section 17 "...a person who prepares a forest stewardship plan must specify measures in the plan to prevent the introduction or spread of species of plants that are invasive plants under the Invasive Plants Regulation, if the introduction or spread is likely to be the result of the person's forest practices."

FDU	Measures
All	<p>1.1 The Holder, will use three complimentary strategies to counter the introduction or spread of invasive plant species, likely to be the result of the Holder's forest practices:</p> <ol style="list-style-type: none"> 1) prevention 2) detection of invasive plant species that elude prevention. 3) management or elimination of invasive plant species <p>Prevention</p> <p>The holder's foresters will be encouraged to review the Ministry of Environment's alien species web site and review identification, control and management of invasive plants.</p> <p>Prevention through Avoidance</p> <p>Preventative measures to minimize the occurrence and spread of invasive plants will include grass seeding of exposed soils following soil disturbance where the introduction or spread of invasive plants is likely. Application of grass seed to constructed road cut and fill slopes or recently deactivated roads is timed by compatible weather and season. Re-vegetation of exposed soils following the completion of road construction or deactivation is within two years. Grass seed mixtures will include nitrogen fixing legume species to supplement nutrient availability for trees planted on rehabilitated roads.</p> <p>Detection of Invasive Plant Species That Elude Prevention.</p> <p>Invasive plants will be detected through company planting surveys, regeneration survival surveys and free-to-grow surveys and through annual internal certification audits. Action plans will be developed to combat the spread of invasive plants, if the introduction or spread is likely to be the result of the company's forest practices.</p> <p>When discovered, invasive plants will be mapped and reported to the Ministry of Forests.</p>

	<p>Management or Elimination of Invasive Plant Species</p> <p>If invasive plants are discovered and if the introduction or spread is likely to be the result of the company’s forest practices then the “Seven Steps to managing Your Weeds”, guidebook will be followed. A copy of the guidebook can be found at; https://www.for.gov.bc.ca/hra/plants/weedsbc/7StepsToManagingYourWeeds.pdf</p>
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10 NATURAL RANGE BARRIERS

Under Section 48 of FRPA and Section 18 of FPPR, the FSP must specify measures to mitigate the effect of removing or rendering ineffective natural range barriers.

FDU	Measures
None	<p>1.1 Subject to paragraph 1.2;</p> <p>The Holder, will not carryout a forest practice that directly or indirectly removes or renders ineffective a natural range barrier.</p> <p>1.2 If the Holder, inadvertently, removes or renders ineffective a natural range barrier other than in a manner set out by government, the Holder will carry out reasonable measures to mitigate the effect of the removal or ineffectiveness.</p>

11 SIGNATURES OF PERSONS REQUIRED TO PREPARE THE PLAN

Preparing Forester:

"I certify that I have determined that this work was performed to an acceptable standard."

Name: David Marquis
David R. Marquis, R.P.F.
Date: November 18, 2016

A&A Trading Ltd.
1210 - 1111 Melville Street,
Vancouver, B.C.
V6E 3V6
Phone: (604) 684-2107 Fax: (604) 689-0799

Authorized Licensee Signature:

Name: Robert D. Harris
Robert D. Harris, R.P.F.
Operations Manager
Date: November 18, 2016

Appendix 1

Stocking Standards

1.0 FORWARD

Pursuant to the Forest Planning and Practices Regulation section 16, the following tables are the stocking standards that are to be applied to cutblocks harvested under this Forest Stewardship Plan (FSP) for the areas included under this plan within the Sunshine Coast Timber Supply Area that may be harvested by the Holder. These standards are to be used in-conjunction with site plans where required under the Forest and Range Practices Act.

The standards recognize several silviculture systems and regeneration situations that may occur as a result of harvesting or other disturbances.

The tables and standards herein are based on the Provincial publications:

- Tree Species and free Growing Stocking Standards Guidelines (May 2000) for the Vancouver Forest Region;
- Establishment to Free Growing Guidebook (Version 2.2, revised May 2000);
- A Field Guide for Site Identification and Interpretation for the Vancouver Forest region (1994, Land Management Handbook Number 28)

2.0 EVEN-AGED MANAGEMENT

The following standards apply to blocks and/or standards units where even aged management is practiced and are applicable to the following silviculture systems:

- Clearcut;
- Clearcut with (Group and/or Dispersed) Reserves;
- Retention, where edge influence is less than 100%, within openings only.

The tables cover site series commonly found within the Sunshine Coast Timber Supply Areas for the following biogeoclimatic (BEC) variants: CDFmm, CWHxm, CWHdm, CWHds1, CWHms1, CWHvm1, CWHvm2, & MHmm1

2.1 Stocking Standards for FL A19229 (Sunshine Coast Forest District). The following tables outline the stocking standards that apply to even-aged management and layer 4 of multi-layered stands.

Table 1			Regeneration Guide					Min	
ID # Assigned	BGC Classification		Species		Stocking			Inter-tree Spacing (m)	Regen. Delay (Max yrs)
	Zone/SZ	Series	Species/Minimum FG Height (m)		Target	MIN p&a	MIN p		
			Preferred (p)	Acceptable (a)	(well-spaced/ha)				
	CDFmm	01	Fd/2.0 PI ⁶ /1.25	Cw/1.0	900	500	400	2.0	3
		02	Fd/2.0 PI ⁶ /1.25		400	200	200	2.0	3
		03	Fd/2.0 PI ³ /1.25		800	400	400	2.0	6
		04	Fd/3.0	Bg/1.75 Cw/1.5	900	500	400	2.0	3
		05	Fd/3.0	Cw/1.5	900	500	400	2.0	3
		06	Cw/2.0 Fd/4.0	Bg/2.25	900	500	400	2.0	3
		07	Cw/2.0 Fd/4.0	Bg/2.25	900	500	400	2.0	3
		08	Cw ¹ /2.0	Bg ¹ /2.25	900	500	400	2.0	3
		10	PI ¹ /1.25	Cw ¹ /1.0	400	200	200	2.0	3
		11	Cw ¹ /1.0		800	400	400	2.0	3
		12	Cw ¹ /2.0 Fd ¹ /4.0	Bg ¹ /2.25	900	500	400	2.0	3
		13	Bg ¹ /2.25 Cw ¹ /2.0 Fd ¹ /4.0		900	500	400	2.0	3
		14	Cw ¹ /1.0	Bg ¹ /1.4	800	400	400	2.0	3
		Root Rot Sites All		Cw/1.5 Pw/2.5	PI/1.25	900	500	400	2.0

Table 1		Regeneration Guide						Min		
ID # Assigned	BGC Classification		Species		Stocking			Inter-tree Spacing (m)	Regen. Delay (Max yrs)	
			Species/Minimum FG Height (m)		Target	MIN p&a	MIN p			
	Zone/SZ	Series	Preferred (p)	Acceptable (a)	(well-spaced/ha)					
	CWHdm	01	Fd/3.0 Hw ²⁴ /3.0	Cw/1.5 Pw ³¹ /2.5	900	500	400	2.0	3	
		02	Pl/1.25 Fd/2.0		400	200	200	2.0	3	
		03		Fd/2.0	Cw/1.0 Hw/2.0	800	400	400	2.0	3
		04		Fd/3.0	Cw/1.5 Pw ³¹ /2.5	900	500	400	2.0	3
		05		Cw/2.0 Fd/4.0	Hw/4.0 Pw ³¹ /2.5	900	500	400	2.0	3
		06		Cw/1.5 Hw/3.0	Fd ¹ /3.0	900	500	400	2.0	6
		07		Cw/2.0 Fd/4.0 Bg/3.5	Hw/4.0 Ss ^{35,56} /4.0	900	500	400	2.0	3
		08		Bg/3.5 Cw/2.0	Ss ^{35,56} /3.5	900	500	400	2.0	3
		09		Cw ¹ /2.0	Bg ¹ /3.5 Ss ^{35,56} /3.5	900	500	400	2.0	3
		11		Pl ¹ /1.25	Cw ¹ /1.0	400	200	200	2.0	3
		12		Cw ¹ /1.0	Hw ^{1,2} /2.0 Pw ³¹ /2.5 Ss ^{35,56} /3.0	800	400	400	2.0	3
		13		Bg/3.5 Cw/2.0 Fd ¹ /4.0	Ss ^{35,56} /4.0	900	500	400	2.0	3
		14		Bg ¹ /3.5 Cw ¹ /2.0	Ss ^{35,56} /3.5	900	500	400	2.0	3
		15		Cw ¹ /1.0		800	400	400	2.0	3
			Root Rot Sites All	Cw/1.5 Pw/2.5	Pl/1.25	900	500	400	2.0	3

Table 1			Regeneration Guide					Min	
ID # Assigned	BGC Classification		Species		Stocking			Inter-tree Spacing (m)	Regen. Delay (Max yrs)
			Species/Minimum FG Height (m)		Target	MIN p&a	MIN p		
	Zone/SZ	Series	Preferred (p)	Acceptable (a)	(well-spaced/ha)				
	CWHds1	01	Fd/2.25	Cw/1.5 Hw/1.0 Pw ³¹ /2.5	900	500	400	2.0	3
		02	PI/1.25 Fd/1.5		400	200	200	2.0	3
		03	Fd/1.5 PI ⁶ /1.25		800	400	400	2.0	3
		04	Fd/2.25	Cw/1.5 Pw ³¹ /2.5	800	400	400	2.0	3
		05	Fd/2.25 Se ^{13,18} /1.0 Cw/1.5	Hw/1.0 Pw ^{13,31} /2.5	900	500	400	2.0	3
		06	Hw/1.0 Fd/2.25	Cw/1.5	900	500	400	2.0	6
		07	Cw/2.0 Fd/3.0	Bg/2.0 Hw/1.25 Ss ^{35,56} /3.0	900	500	400	2.0	3
		08	Cw/2.0	Ss ³⁵ /3.0 Bg/2.0	900	500	400	2.0	3
		09	Cw ¹ /2.0	Bg ¹ /2.0 Ss ^{35,56} /2.0	900	500	400	2.0	3
		11	PI ¹ /1.25	Cw ¹ /1.0	400	200	200	2.0	3
		12	Cw ¹ /1.0	PI ⁷ /1.25	800	400	400	2.0	3

Table 1			Regeneration Guide					Min	
ID # Assigned	BGC Classification		Species		Stocking			Inter-tree Spacing (m)	Regen. Delay (Max yrs)
			Species/Minimum FG Height (m)		Target	MIN p&a	MIN p		
	Zone/SZ	Series	Preferred (p)	Acceptable (a)	(well-spaced/ha)				
	CWHms1	01	Cw/1.5 Fd/2.25 Se ^{13,18} /1.0 Hw ^{10,13} /1.5 Ba ^{10,13} /0.75		900	500	400	2.0	3
		02	Pl/1.25 Fd/1.5		400	200	200	2.0	3
		03	Cw/1.5 Fd/2.25 Se ^{13,18} /1.0	Hw/1.5 Ba ^{10,13} /0.75	800	400	400	2.0	3
		04	Cw/2.0 Fd/3.0 Se ^{13,18} /1.25 Ba ^{10,13} /1.0	Hw ^{10,13} /2.0 Pw ³¹ /2.5 Yc ^{13,17} /2.0	900	500	400	2.0	3
		05	Cw/1.5 Hw/1.5 Yc ^{13,17} /1.5 Ba ^{10,13} /0.75		900	500	400	2.0	6
		06	Cw/2.0 Fd/3.0 Yc ^{13,17} /2.0 Se ¹³ /1.25	Ba ¹³ /1.0 Bg ^{14,17} /2.5 Hw/2.0	900	500	400	2.0	3
		07	Ba ¹³ /1.0 Cw/2.0 Ss ³⁵ /4.0	Fd ¹ /3.0 Se ¹⁸ /1.25	900	500	400	2.0	3
		08	Cw ¹ /2.0	Ba ¹ /1.0	900	500	400	2.0	3
		10	Pl ¹ /1.25	Cw ¹ /1.0	400	200	200	2.0	3
		11	Cw ¹ /1.0 Yc ^{13,17} /1.0	Pw ³¹ /2.5 Se ¹ /0.75	800	400	400	2.0	3

Table 1			Regeneration Guide					Min	
ID # Assigned	BGC Classification		Species		Stocking			Inter-tree Spacing (m)	Regen. Delay (Max yrs)
			Species/Minimum FG Height (m)		Target	MIN p&a	MIN p		
	Zone/SZ	Series	Preferred (p)	Acceptable (a)	(well-spaced/ha)				
	CWHvm1	01	Cw/1.5 Hw/3.0 Fd ^{9,16} /3.0 Ba ²⁶ /1.75	Ss ^{7,35} /3.0	900	500	400	2.0	6
		02	Pl/1.25 Cw/1.0 Fd ^{9,16} /2.0	Hw/2.0	400	200	200	2.0	3
		03	Cw/1.0 Hw/2.0 Fd ^{9,16} /2.0	Pl ⁵³ /1.25	800	400	400	2.0	6
		04	Cw/1.5 Hw/3.0 Fd ^{9,16} /3.0	Ba/1.75	900	500	400	2.0	3
		05	Ba/1.75 Cw/1.5 Hw/3.0 Fd ^{1,9,16} /3.0	Ss ³⁵ /3.0	900	500	400	2.0	3
		06	Ba ²⁶ /1.75 Cw/1.5 Hw/3.0	Ss ^{7,35} /3.0 Fd ^{1,9,23} /3.0	900	500	400	2.0	6
		07	Ba/2.25 Cw/2.0 Fd ^{1,9,23} /4.0 Hw ² /4.0	Ss ³⁵ /4.0	900	500	400	2.0	3
		08	Ba/2.25 Cw/2.0 Hw ² /4.0	Ss ³⁵ /4.0	900	500	400	2.0	3
		09	Ba/2.25 Cw/2.0 Hw/4.0	Ss ³⁵ /4.0	900	500	400	2.0	3
		10	Ba ¹ /2.25 Cw ¹ /2.0	Ss ^{1,35} /4.0	900	500	400	2.0	3
		12	Cw ¹ /1.0 Hw ¹ /2.0 Yc ¹ /1.0	Pl ¹ /1.25	800	400	400	2.0	3
		13	Pl ¹ /1.25	Cw ¹ /1.0	400	200	200	2.0	3
		14		Hw ¹ /3.0 Ss ^{1,35} /3.0	800	400	400	2.0	3

Table 1		Regeneration Guide					Min		
ID # Assigned	BGC Classification		Species		Stocking			Inter-tree Spacing (m)	Regen. Delay (Max yrs)
			Species/Minimum FG Height (m)		Target	MIN p&a	MIN p		
	Zone/SZ	Series	Preferred (p)	Acceptable (a)	(well-spaced/ha)				
	CWHvm2	01	Fd ^{1,9,23} /2.25 Hw/2.50 Cw/1.5 Yc/1.5 Ba/1.75	Ss ^{7,15,35} /3.0 Hm ¹³ /1.0	900	500	400	2.0	6
		02	Pl/1.25 Cw/1.0 Fd ^{9,16} /1.5 Yc/1.0	Hw/1.75 Hm ¹³ /0.75	400	200	200	2.0	3
		03	Cw/1.0 Hw/1.75 Fd ^{9,16} /1.5 Yc/1.0	Pw ^{16,31} /2.5 Hm ¹³ /0.75	800	400	400	2.0	6
		04	Cw/1.0 Hw/1.75 Fd ^{9,16} /1.5 Yc/1.0	Ba/1.5 Pw ¹⁶ /2.5 Hm ¹³ /0.75	900	500	400	2.0	6
		05	Cw/1.5 Hw/2.5 Yc/1.5 Ba/1.75	Fd ^{1,8,9,23} /2.25 Ss ^{15,35} /3.0 Hm ¹³ /1.0	900	500	400	2.0	3
		06	Cw/1.5 Hw/2.5 Yc/1.5 Ba/1.75	Fd ^{1,9} /2.25 Ss ⁷ /3.0 Hm ¹³ /1.0	900	500	400	2.0	6
		07	Cw/2.0 Hw ² /3.5 Yc/2.0 Ba/2.25	Ss ^{15,35} /4.0 Hm ¹³ /1.0	900	500	400	2.0	3
		08	Cw ¹⁴ /2.0 Hw ^{2,30} /3.5 Yc/2.0 Ba/2.25	Ss ^{30,35} /4.0 Hm ¹³ /1.0	900	500	400	2.0	3
		09	Cw ¹ /1.0 Hw ¹ /1.75 Yc ¹ /1.0	Ba/1.5 Hm ¹³ /0.75	800	400	400	2.0	3
		10	Pl ¹ /1.25 Yc ¹ /1.0	Hm/0.75	400	200	200	2.0	3
		11	Cw ¹ /1.0 Yc ¹ /1.0	Hw ¹ /1.75 Ss ³⁵ /2.0 Hm ^{13,53} /0.75	800	400	400	2.0	3

Table 1			Regeneration Guide					Min	
ID # Assigned	BGC Classification		Species		Stocking			Inter-tree Spacing (m)	Regen. Delay (Max yrs)
			Species/Minimum FG Height (m)		Target	MIN p&a	MIN p		
	Zone/SZ	Series	Preferred (p)	Acceptable (a)	(well-spaced/ha)				
	CWHxm	01	Fd/3.0	Hw ²⁴ /2.0 Cw/1.5 Pw ³¹ /2.5	900	500	400	2.0	3
		02	Pl ^{1.25} Fd/2.0		400	200	200	2.0	3
		03	Fd/2.0 Pl ⁶ /1.25	Cw/1.0	800	400	400	2.0	3
		04	Fd/3.0	Cw/1.5 Pw ³¹ /2.5	900	500	400	2.0	3
		05	Cw/2.0 Fd/4.0	Hw/1.75 Pw ³¹ /2.5 Bg ⁵³ /3.5	900	500	400	2.0	3
		06	Cw/1.5 Hw/2.0 Fd ¹⁸ /3.0		900	500	400	2.0	6
		07	Cw/2.0 Fd/4.0	Bg/3.5 Hw/1.75 Ss ^{35,56} /4.0	900	500	400	2.0	3
		08	Cw/2.0 Ss ³⁵ /4.0	Bg/3.5	900	500	400	2.0	3
		09	Cw ¹ /2.0	Bg ¹ /3.5 Ss ^{35,56} /3.5	900	500	400	2.0	3
		11	Pl ¹ /1.25	Cw ¹ /1.0	400	200	200	2.0	3
		12	Cw ¹ /1.0	Hw ¹ /2.0 Pw ³¹ /2.5 Ss ^{35,56} /2.5	800	400	400	2.0	3
		13	Cw/2.0 Bg/3.5 Fd/4.0	Ss ^{35,56} /4.0	900	500	400	2.0	3
		14	Bg ¹ /3.5 Cw ¹ /2.0	Ss ^{35,56} /3.5	900	500	400	2.0	3
		15	Cw ¹ /2.0		800	400	400	2.0	3
		Root Rot Sites All		Cw/1.5 Pw/2.5	Pl/1.25	900	500	400	2.0

Table 1			Regeneration Guide					Min	
ID # Assigned	BGC Classification		Species		Stocking			Inter-tree Spacing (m)	Regen. Delay (Max yrs)
			Species/Minimum FG Height (m)		Target	MIN p&a	MIN p		
	Zone/SZ	Series	Preferred (p)	Acceptable (a)	(well-spaced/ha)				
	MHmm1	01	Ba/0.6 Hm/1.0 Yc/1.0	Se ²³ /1.0 Hw ^{14,53} /1.0	900	500	400	2.0	7
		02	Hm/.75 Yc/.75	Ba/.6 Se ²³ /0.75	800	400	400	2.0	4
		03	Ba/.6 Hm/1.0 Yc/1.0	Hw ^{14,53} /1.0	900	500	400	2.0	4
		04	Ba/0.6 Hm/1.0 Yc/1.0	Hw ^{14,53} /1.0	900	500	400	2.0	7
		05	Ba/0.6 Yc/1.0	Hm/1.0 Hw ^{14,53} /1.0	900	500	400	2.0	4
		06	Hm ¹ /0.75 Yc ¹ /0.75	Ba ¹ /0.6	800	400	400	2.0	7
		07	Ba ¹ /0.6 Yc ¹ /0.75	Hm ¹ /0.75	900	500	400	2.0	4
		08	Hm ¹ /0.75 Yc ¹ /0.75		400	200	200	2.0	4
		09	Yc ¹ /0.75	Hm ¹ /0.75	800	400	400	2.0	4

Conifer Tree Species

"Ba" means amabilis fir;
"Bg" means grand fir;
"Bl" means subalpine fir;
"Bp" means noble fir;
"Cw" means western red cedar;
"Fd" means Douglas-fir;
"Hm" means mountain hemlock;
"Hw" means western hemlock;
"Lt" means tamarack;
"Lw" means western larch;
"Pa" means whitebark pine;
"Pl" means lodgepole pine;
"Pw" means white pine;
"Py" means ponderosa pine;
"Sb" means black spruce;
"Se" means Engelmann spruce;
"Ss" means Sitka spruce;
"Sw" means white spruce;
"Sx" means hybrid spruce or interior spruce;
"Sxs" means hybrid Sitka spruce;
"Sxw" means hybrid white spruce;
"Yc" means yellow cedar.

"Biogeoclimatic unit" or "BGC classification"
means the zone, subzone, variant and site series described in the most recent field guide published by the Ministry of Forests for the identification and interpretation of ecosystems, as applicable to a harvested area.

"MIN or **"Min"** means minimum

Broadleaf Tree Species

"Acb" means balsam poplar;
"Act" means black cottonwood;
"At" means trembling aspen;
"Dr" means red alder;
"Ep" means common paper birch;
"Mb" means bigleaf maple;
"Qg" means garry oak;
"Ra" means arbutus;

Footnote

- 1 elevated microsites are preferred
- 2 suitable on thick forest floors
- 3 restricted to coarse-textured soils
- 4 restricted to medium-textured soils
- 5 footnote retired
- 6 restricted to nutrient-very-poor sites
- 7 restricted to nutrient-medium sites
- 8 restricted to steep slopes
- 9 restricted to southerly aspects
- 10 restricted to northerly aspects
- 11 restricted to crest slope positions
- 12 suitable on cold air drainage sites
- 13 restricted to upper elevations of biogeoclimatic unit
- 14 restricted to lower elevations of biogeoclimatic unit
- 15 restricted to northern portion of biogeoclimatic unit in region
- 16 restricted to southern portion of biogeoclimatic unit in region
- 17 restricted to western portion of biogeoclimatic unit in region
- 18 restricted to eastern portion of biogeoclimatic unit in region
- 19 restricted, not in Queen Charlotte Islands
- 20 restricted, not near outer coast
- 21 restricted to mainland
- 22 restricted to southern Gardner Canal-Kitlope area
- 23 restricted to trial use
- 24 suitable (as a major species) in wetter portion of biogeoclimatic unit
- 25 suitable on sites lacking salal
- 26 suitable minor species on salal-dominated sites
- 27 partial canopy cover required for successful establishment
- 28 limited by moisture deficit
- 29 risk of heavy browsing by moose

- 30 risk of porcupine damage
- 31 risk of white pine blister rust
- 32 limited by growing-season frosts
- 33 footnote retired and replaced with footnote 'a'
- 34 risk of snow damage
- 35 risk of weevil damage
- 36 suitable major species on salal-dominated sites
- 37 risk of heart rots
- 38 footnote retired
- 39 avoid exposed and windy sites
- 40 risk of redheart
- 41 limited by poorly drained soils
- 42 restricted to fresh soil moisture regimes
- 43 suitable on mainland coast only (QCI only)
- 44 suitable in areas with stronger maritime influence
- 45 suitable in areas with stronger continental influence
- 46 restricted to area north of the Dean Channel
- 47 risk of balsam wooly adelgid
- 48 risk of heavy browsing by deer
- 49 applies only to rust resistant, planted stock.
- 50 restricted to sites where the species occurs as a
major species in a pre-harvest, natural stand
- 51 restricted to areas with proven PI performance
- 52 restricted to sheltered microsites with deep soil
- 53 minor component
- 54 risk of unsuccessful release of advance regeneration
- 55 acceptable in sx-sm portion of site series
Must be present in the pre-harvest stand
and be restricted to weevil resistant stock
- 56
- 61 acceptable on cold air drainage sites only

- # **Broadleaf Management Constraints**
- a productive, reliable, and feasible regeneration option
- b limited in productivity, reliability and/or feasibility

2.2 Elk Stocking Standards

The following standards apply to blocks and/or standards units located within identified elk management zones where even aged management is practiced and are applicable to the following silviculture systems:

- Clearcut;
- Clearcut with (Group and/or Dispersed) Reserves;
- Retention, where edge influence is less than 100%, within openings only.

The tables cover site series commonly found within the Sunshine Coast Timber Supply Areas for the following biogeoclimatic (BEC) variants that are most impacted by elk: CWHdm, CWHds1, and CWHxm.

Application of Elk Stocking Standards

Elk stocking standards apply to Sechelt, Salmon, Jervis, Quatam and Homathko FDU where elk are known to occur. The standards can only be applied for those blocks where elk damage has occurred and continues to occur and impedes the Holder from meeting stocking standards as identified in Appendix 1.0 – “*Sunshine Coast Stocking Standards*”, under normal operating conditions (i.e. prior to elk translocation). Prior to adopting the elk stocking standards the Holder through survey will confirm the amount and extent of elk damage and apply the elk standards to those blocks and/or standard units where damage is occurring. The use of elk stocking standards will be supported in a rationale and signed by the prescribing forester.

Elk Stocking Standards			Regeneration Guide				Min		
ID # Assigned	BGC Classification		Species		Stocking			Inter-tree Spacing (m)	Regen. Delay (Max yrs)
			Species/Minimum FG Height (m)		Target	MIN p&a	MIN p		
	Zone/SZ	Series	Preferred (p)	Acceptable (a)	(well-spaced/ha)				
	CWHdm	01	Fd/3.0 Hw ²⁴ /3.0 Cw/1.5 Pw ³¹ /2.5		900	300	300	2.0	6
		03	Fd/2.0	Cw/1.0 Hw/2.0	800	300	200	2.0	6
		05	Cw/2.0 Fd/4.0 Hw/4.0 Pw ³¹ /2.5		900	300	300	2.0	6
		06	Cw/1.5 Hw/3.0	Fd ¹ /3.0	900	300	300	2.0	6
		07	Cw/2.0 Fd/4.0 Bg/3.5	Hw/4.0 Ss ^{35,56} /4.0	900	300	300	2.0	6

Elk Stocking Standards			Regeneration Guide				Min		
ID # Assigned	BGC Classification		Species		Stocking			Inter-tree Spacing (m)	Regen. Delay (Max yrs)
			Species/Minimum FG Height (m)		Target	MIN p&a	MIN p		
	Zone/SZ	Series	Preferred (p)	Acceptable (a)	(well-spaced/ha)				
	CWHds1	01	Fd/2.25 Cw/1.5 Hw1.0 Pw ³¹ /2.5		900	300	300	2.0	6
		03	Fd/1.5 Pl ⁶ /1.25	Py ^{7,18,23} /1.0 Cw/1.0 Hw/0.8	800	300	200	2.0	6
		04	Fd/2.25 Cw/1.5 Pw ³¹ /2.5		800	300	300	2.0	6
		05	Fd/2.25 Se ^{13,18} /1.0 Cw/1.5 Hw/1.0 Pw ^{13,31} /2.5		900	300	300	2.0	6
		06	Hw/1.0 Fd/2.25	Cw/1.5	900	300	300	2.0	6
		07	Cw/2.0 Fd/3.0	Bg/2.0 Hw/1.25 Ss ^{35, 56} /3.0	900	300	300	2.0	6

Elk Stocking Standards			Regeneration Guide				Min		
ID # Assigned	BGC Classification		Species		Stocking			Inter-tree Spacing (m)	Regen. Delay (Max yrs)
	Zone/SZ	Series	Species/Minimum FG Height (m)		Target	MIN p&a	MIN p		
			Preferred (p)	Acceptable (a)	(well-spaced/ha)				
	CWHxm	01	Fd/3.0 Cw/1.5 Pw ³¹ /2.5 Hw ²⁴ /2.0		900	300	300	2.0	6
		03	Fd/2.0 PI ⁶ /1.25	Cw/1.0	800	300	200	2.0	6
		05	Cw/2.0 Fd/4.0 Pw ³¹ /2.5 Bg ⁵³ /3.5	Hw/1.75	900	300	300	2.0	6
		06	Cw/1.5 Hw/2.0 Fd ¹⁸ /3.0		900	300	300	2.0	6
		07	Cw/2.0 Fd/4.0 Bg/3.5 Hw/1.75	Ss ^{35,56} /4.0	900	300	300	2.0	6

2.3 Rules for Modifying General Stocking Standards

RULE NUMBER ONE - Site Series Mosaics/Complexes

Where more than one site series is located within a logical standards unit area the standard that applies will be that of the dominant site series. This standard can be modified with the inclusion of additional species selected from the standard of the subdominant site series for those specific areas of the mosaic or complex. These additional components to the standard will be supported by a rationale, documented and should be incorporated into the Site Plan.

RULE NUMBER TWO - Transitional Sites

On transitional sites occurring between two BEC units the standard that applies will be that of the dominant BEC unit. This standard can be modified with the inclusion of components of the standard associated with the sub-dominant BEC unit. These additional components to the standard will be supported by a rationale, documented and should be incorporated into the Site Plan.

RULE NUMBER THREE - Minimum Inter-tree Distance (MITD)

The general MITD of 2.0 metres can be reduced down to 1.5 metres for any given site where productive and plantable sites are limited by pre-harvest site characteristics. These can include but are not limited to colluvial, hygric and subhygric sites. Justification for a reduced MITD will be supported by a rationale, documented and should be incorporated into the Site Plan.

RULE NUMBER FOUR - Leave Trees

The minimum characteristics of any leave trees that contribute toward the free growing stand must be of good form, health and vigor and otherwise meet the stocking standards for that site. In situations where leave trees will not contribute to the free growing stand the leave trees within the harvest area must have characteristics appropriate to meet forest management objectives developed for the site. The forest management objectives must be supported by a rationale, documented and should be incorporated into the site plan

2.4 Forest Health Factors

Laminated Root Rot - Alternate stocking standards have been listed for sites infected by laminated root rot and armillaria in the CWH dm and CWHxm subzones of the Sunshine Coast Forest District. These standards will be applied to infected sites when an alternate species management strategy is prescribed.

White Pine Blister Rust - Western White Pine (Pw) occurs naturally within the plan area and is susceptible to White Pine Blister Rust. In order for Pw to be an acceptable crop tree at free growing it must be either grown from resistant stock or first-lift pruned. Pruned means that the lowest live branches have been removed to a height of 1.3m when trees are greater than or equal to 2.5m tall. For trees < 2.5m tall, at least 40% of tree height will remain as live crown.

Spruce Weevil - Risk for Spruce Weevil is high for most of the plan area below 700m in elevation. For this reason, sitka spruce and spruce hybrids will be limited to minor components (<20%) of planted and regenerated stands. Planted spruce is to be from seed which has been selected for resistance to spruce weevil.

Dwarf Mistletoe – Where dwarf mistletoe is considered a forest health concern on or adjacent to a cutblock an alternate species management strategy will be used.

2.5 Even-aged Hardwood Management

The following standards apply to blocks and/or standards units specific to TFL 43 where hardwood management is practiced and are applicable to clearcut silviculture systems.

Table 1.1 – TFL 43 Stocking Standards for Even-aged Hardwood Management

Table 1.1			Regeneration Guide					Min	
ID # Assigned	BGC Classification		Species		Stocking			Inter-tree Spacing (m)	Regen Delay (max years)
	Zone	Site Series	Preferred	Acceptable	Target	Min p&a	Min p		
	CWH ds 1	05, 08, 09	Act 3.0 AX 3.0	Dr 3.0 Mb 3.0	600	410	400	2.0	2
	CWH ds 1	09*	Act 3.0 AX 3.0	Dr 3.0 Mb 3.0	400	255	250	1.8	2

*To be used where the water table is at or near the surface (>15cm) for extended periods during the growing season.

Hardwood Tree Species

“Dr” means red alder;

“Act” means black cottonwood;
 “Mb” means broadleaf maple;
 “AX” means hybrid poplars.

3.0 UNEVEN-AGED MANAGEMENT

The following standards apply to blocks and/or standards units where uneven-aged management is practiced and are applicable to the following silviculture systems:

- High Retention Holdover Cut;
- Intermediate Cut;
- Retention (group and/or dispersed), where edge influence is 100%; and
- Group Selection.

The tables cover site series commonly found within the Sunshine Coast Timber Supply Areas for the following biogeoclimatic (BEC) variants: CDFmm, CWHxm, CWHdm, CWHds1, CWHms1, CWHvm1, CWHvm2 & MHmm1.

Table 2 – Stocking Standards for Multi-storied Stands				
Target	Layer*	Stocking (well spaced/Ha)		
		Target p & a	Minimum p & a	Minimum p
900	1	400	200	200
	2	500	300	250
	3	700	400	300
	4	900	500	400
800	1	300	150	150
	2	400	200	200
	3	600	300	300
	4	800	400	400
600	1	300	150	150
	2	400	200	200
	3	500	300	300
	4	600	400	400
400	1	200	100	100
	2	300	125	125
	3	300	150	150
	4	400	200	200

3.1 Applying Uneven-Aged (Multi-layered) Stocking Standards

The multi-storied stocking standards may be applied, where ecologically suitable, to partial harvesting silviculture systems that include single or multiple entry harvesting designated to create multi-storied stands. Multi-storied stands generally have two or more dominant age classes or layers that are created by partial cutting silviculture systems in both even and uneven aged stands. The purpose of these standards is to allow retention trees from different layers to contribute towards the stocking and to avoid additional stocking in the under-story that will never attain acceptable growth and vigor. The “Standards for Retained Trees” section outlines the criteria for trees that count towards stocking.

To apply the multi-layered stocking standards, first select the appropriate site from the biogeoclimatic ecosystem classification (BEC) site series (Table 1) to determine the preferred and acceptable tree species (p & a) and applicable free growing heights. Then select the set of target and minimum stocking densities from the Stocking Standards for Uneven-Aged Stands (Table 2) that correspond to the target density in Table 1. Where standards units (SU) are comprised of more than one site series, the practice will be to manage the stocking standards of the dominant site series provided that the tree species are suitable for all the site series contained in the SU.

Uneven-aged stocking standards may be applied in partial harvesting plans that are designed to meet specific management objectives. Some examples where these standards are appropriate include:

- when operating in visually constrained areas;
- wildlife enhancement areas where the removal of some stand volume is appropriate;
- partial cutting in stands with a naturally occurring multi-storied stand structure; and
- feathering of cut-block edges to meet wind-throw or riparian management objectives.

Openings created using partial cutting silviculture systems will generally not exceed one hectare. The establishment and growth of the regeneration layer occurs under the influence of existing leave trees of one or more additional age classes.

***Stand Layer Definition**

Layer 1 Mature trees \geq 12.5 cm dbh

Layer 2 Pole trees 7.5 cm to 12.4 cm dbh

Layer 3 Sapling trees ≥ 1.3 height to 7.4 cm dbh
Layer 4 Regeneration trees < 1.3 m height

3.2 Regeneration Date / Free Growing Height

Maximum regeneration delay is one year more than what is listed in the even-aged stocking standards. The free growing heights where applicable are as listed in the even-aged stocking standards. Regeneration delay can be met immediately following harvest if the residual stand has no significant damage or pest problems and meets the minimum stocking standards. If regeneration is achieved immediately following harvest, earliest free growing date is 12 months after completion of harvest.

3.3 Preferred and Acceptable Species

The preferred and acceptable species listed in the even-aged stocking standards by biogeoclimatic zone, variant and site series are to be considered “preferred” with the exception of locally shade-intolerant species Douglas-fir (Fd) which in layer 4 is considered “acceptable”.

3.4 Standards for Retained Trees:

Leave trees retained through various silviculture systems may contribute to the stocking of the future stand and/or provide biodiversity value.

For mature (layer 1), pole size (layer 2), sapling (layer 3), and regeneration (layer 4) trees to contribute to stocking in the future stand and be considered free growing they must have the following minimum characteristics:

- Have good form, health, and vigour and otherwise meet the stocking requirements for the site.
- Scars and damage should be minimal and there should be no stem infection caused by dwarf mistletoe; no other externally visible pathological indicators should be present including broken tops, frost cracks, conk, extreme basal sweep, or unacceptable forks and crooks.
- Continuous live crown must be greater than 20% for layers 1 and 2 and 30% for layer 3 trees.
- Layer 3 trees will be free of significant disease or insect damage, have potential for post harvest release, and no open injuries (scars) with a horizontal width greater than 25% of the circumference of the tree at that point.

- A higher percentage of stem defect, scars, and rot are acceptable for layer 1 and layer 2 western red cedar and yellow cedar leave trees. The forest products derived from Cw and Yc are unique and these trees will likely provide economic value to the next stand entry.

3.5 Trees Retained for Biodiversity

Trees left for biodiversity, that will not contribute to the free growing stand, may include very old dominant trees (veteran trees), trees with broken tops, candelabras, heart rot, as well as under-story trees and advanced regeneration if deemed safe to do so. These trees will add structural value, potential wildlife habitats, and coarse woody debris inputs to the next stand. Leave trees infected with dwarf mistletoe or root rot should not be retained for biodiversity.

4.0 STOCKING STANDARDS FOR HIGH RETENTION HARVESTING (HIGH RETENTION HOLDOVER CUT / INTERMEDIATE CUT)

Single Stem Harvest - is the removal of individual stems or small groups of trees using either “standing stem” harvest by helicopter, or conventional falling and yarding by helicopter or other equipment where the remaining stand post-harvest is held over for a subsequent entry with a specified silviculture system; this is considered an “Intermediate Cut”. A “High Retention Holdover Cut” varies from an Intermediate Cut in that the silvicultural system is not specified, but rather the resulting stand will be in a suitable condition to apply a silvicultural system with another harvesting entry in the near future. The residual stand that remains following an intermediate cut (even-aged management) or high retention holdover cut (uneven-aged management) does not have a free growing requirement. There are no reforestation requirements for high retention harvesting systems.

This type of harvesting system may be used in constrained areas to address cut-block adjacency, terrain stability, wildlife, riparian and visual management issues.

4.1 Stewardship & Biodiversity

High retention harvesting will remove a small volume of timber while retaining a similar species and stand composition and still provide for the removal of a future volume of timber.

Old growth trees within the proposed harvest areas will only be harvested as incidental take with worker safety as the priority. Stand level biodiversity will be maintained by leaving old growth trees (>250 yrs old) and a mixed age class and species distribution as part of the remaining stand. To meet the requirement for

Wildlife Trees, a component of stand structures suitable for wildlife habitat (large, trees with defects, snags, veteran trees) and wildlife habitat attributes will be retained and continue to contribute to stand level biodiversity. Small gaps in the stand canopy should increase stand biodiversity through the promotion of understory vegetation that will increase forage for birds and small mammals. Increased abundance of prey species will in turn help existing predator species in the area.

All other resource values including visual landscape management will be managed consistent with results and strategies approved under A&A's Forest Stewardship Plan and practice requirements under the Forest Planning and Practices Regulation.

4.2 Stocking Standards

The minimum acceptable stocking level of layer 1 and layer 2 for high retention harvesting systems when a stocking standard for established regeneration is not required is;

- Second Growth Stands: Retained trees are well distributed (with no gaps exceeding twice the normal spacing for a given density), healthy and be greater than 300 stems/ha; or
- Old Growth Stands: Retained trees are well distributed (with no gaps exceeding twice the normal spacing for a given density), healthy and be greater than 200 stems /ha.

Species composition of the retained trees in layers 1 and 2 are similar in percentage (+/- 15%) to the pre-harvest block species composition. There will be a maximum 30% reduction in pre-harvest stand basal area (m²/ha) and/or a maximum 30% reduction in pre-harvest merchantable stand volume (m³/ha). Residual stand composition will be listed in the Site Plan for each Standards Unit.

The following minimum opening size or situation applies to small openings;

- When opening size or gap size is > 0.1 ha. then even age stocking standards apply. Small openings >0.1 hectares in size would only occur in circumstances where worker safety was an issue.
- Small openings or gaps ≤ 0.1 ha do not require stocking standards.

The quantity and distribution of trees retained must be to a level that will ensure the area will remain adequately stocked for a period of 12 months after completion of harvest (FPPR s.44(4)) such that a stand has future growth

potential considering the objectives for the site and the health and vigor of the existing stand.

4.3 Standards for Retained Trees:

The preferred and acceptable species listed in the even-aged stocking standards by biogeoclimatic zone, variant and site series are to be considered “preferred” and be based on the pre-harvest stand composition.

Leave tree form, health and vigor will be representative of the original stand condition.

Excessively scared and/or damaged trees caused by harvesting should also be removed.

Appendix 2: Ministerial Orders and Notices

Appendix 3: FSP Map(s)

1.0 Forest Development Units

- Sechelt, Salmon, Jervis, Homfray, Cortes, Quatam, Homathko and Frog.

Appendix 4: Public Review / Written Comments

Appendix 5: First Nations Review / Written Comments

Appendix 6: Advertisements