



TimberWest

TIMBERWEST FOREST CORP.

JOHNSTONE STRAIT

FOREST STEWARDSHIP PLAN

Replacing the Forest Stewardship Plan most recently amended September, 2016

Submitted TBD, 2017

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1 INTERPRETATION

1.1 TENSES

In this Forest Stewardship Plan (FSP), the singular includes the plural and the plural includes the singular, unless the context indicates otherwise.

1.2 OBJECTIVES CANCELLED

If an objective for which a result or strategy is included under this FSP is cancelled, the result or strategy under this FSP pertaining to that objective is no longer applicable effective the date of cancellation of the objective.

2 SUBMISSION DATE, TERM & COMMENCEMENT DATE OF THIS FSP

2.1 SUBMISSION DATE

The date of submission of this FSP amendment is: July 28, 2016.

2.2 TERM (FRPA S. 6(1) (a))

The Term of this FSP is 5 years plus an additional 5.5 year extension beginning on the Commencement Date.

2.3 COMMENCEMENT DATE

The Commencement Date for the Term of this FSP is December 13, 2006.

3 APPLICATION OF THIS FSP

3.1 FSP HOLDER

The holder of this FSP is TIMBERWEST FOREST CORP.

3.2 APPLICATION OF THIS FSP

Subject to exceptions under the Forest and Range Practices ACT (FRPA), this FSP applies to:

- F.L. A29159,
- F.L. A20913 ,
- TFL 47 Blocks 2, 3, and 5 to 11,
- TL T0833 and TL T0769
- NRFLs A90802 and A90383

4 FSP MAP (FRPA S. 5(1)(A) & FPPR S.14)

The Forest and Range Practices Act and the Forest Practices and Planning Regulation (FPPR) specify required elements that a Forest Stewardship Plan map must include. The FSP map must specifically identify land use designations such as ungulate winter range (UWR), Old Growth Management Areas (OGMA), community watersheds and areas under cutting permit and road permit within each of the Forest Development Units.

Forest Development Units (FDU's) E, F, G T and Y are in effect. Figure 1 provides an overview of the FSP plan area.

4.1 AREAS TO WHICH FRPA S. 196(1) OR (2) OR FPPR S. 110 APPLIES

The appended FSP map set illustrates the cutblocks and roads included in Forest Development Plans (FDP) that are within a proposed Forest Development Unit under this FSP and considered approved under S. 196(1) or (2) of the Act, including those cutblocks referred to in S. 110 of the FPPR.

4.2 DESIGNATION IN EFFECT BEFORE SUBMISSION OF THIS FSP (FPPR S. 14(3))

The FSP map illustrates the designations and content requirements described in S. 14(3) of the Forest Planning and Practices Regulation (FPPR) that were in effect on the Date of Submission.

4.3 AREAS SUBJECT TO CUTTING PERMIT OR ROAD PERMIT (FPPR S.14(2)(B)(I) & 14(3))

The FSP map illustrates areas within the proposed FDUs that are subject to existing cutting permit or road permit held by the Licensee and in effect on the date of submission. These areas are already under permit and are not the focus of review and comment.

In addition to the areas illustrated on the map, cutting permit "99" is a blanket salvage permit and cutting permit "199" is a blanket damaged timber cutting permit applicable to the Tree Farm License (TFL) portion of the plan area illustrated on the accompanying FSP maps.

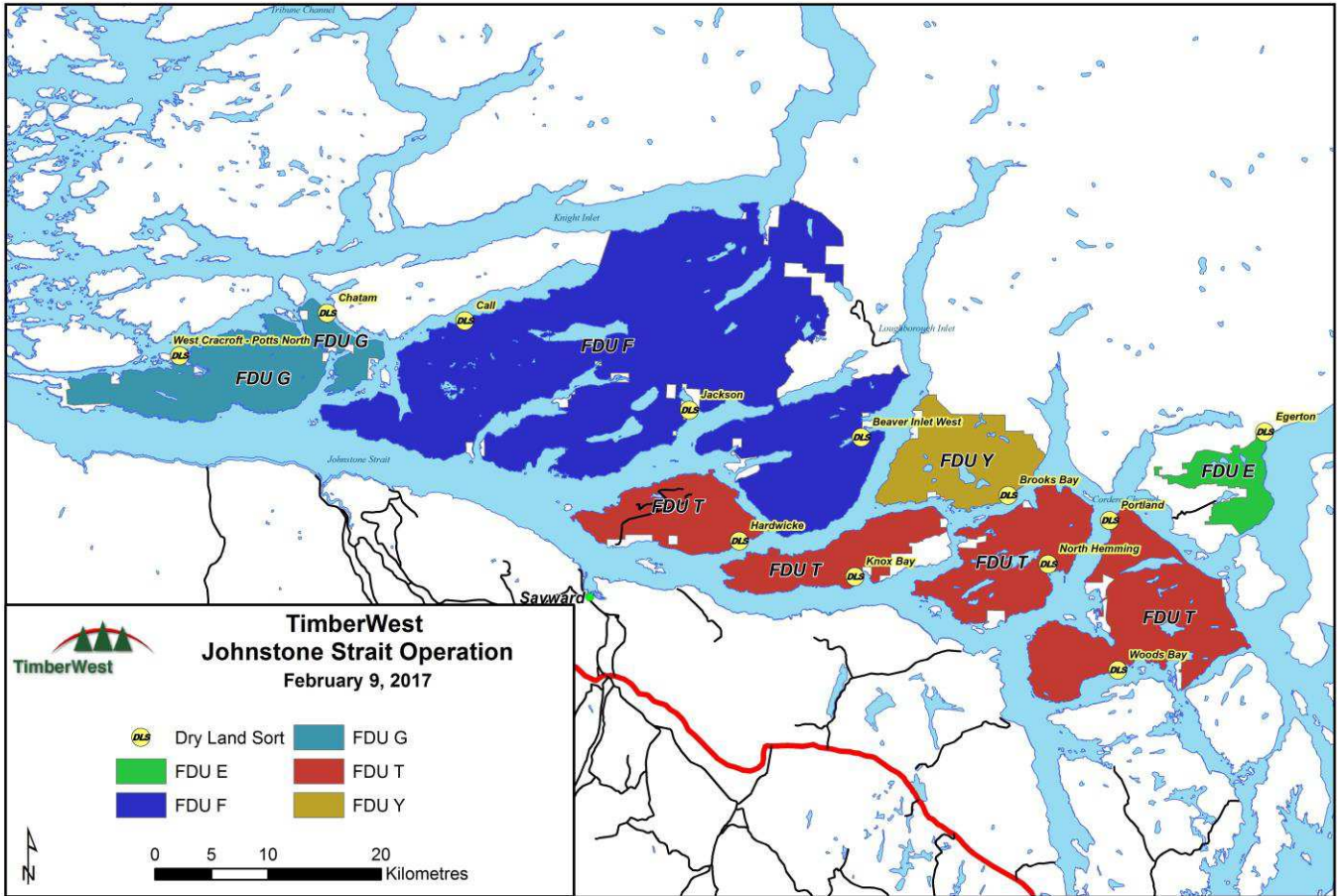


Figure 1. Straits FSP Overview

5 DESIGNATIONS AND OBJECTIVES IN EFFECT BEFORE SUBMISSION OF FSP - (FPPR s. 14 (2) (b) (ii))

- Order Establishing Provincial Non-Spatial Old Growth Objectives
- Campbell River Forest District – Scenic Areas and VQO’s (December 14, 2005)
- Kingcome TSA Visual Quality Objective Order (August 31, 2005)
- Scenic Areas with Visual Quality Objectives (TFL 47)
- Species at Risk Notice
 - Campbell River Forest District – December 30, 2005
 - North Island Central Coast Forest District – March 2, 2006
- Order to identify Recreation Resource Features – Campbell River Forest District April 12, 2006
- Central Coast Designated Area No. 2
- Great Bear Rainforest Order

- Existing Cutting Permits and Road Permits

6 OBJECTIVES ESTABLISHED OR CONTINUED – (FRPA S. 1 DEFINITIONS)

FRPA, S.1 definitions defines “objectives set by government” to include objectives established under Section 93.4 of the *Land Act*. The sections which follow detail the objectives contained in the Great Bear Rainforest Order.

6.1 Great Bear Rainforest Order

The South Central Coast Order (SCCO) came into effect August 2, 2007. The SCCO was subsequently amended with the amendment coming into effect March 26, 2009. Most recently, the SCCO has been replaced by the Great Bear Rainforest Order (GBRO) which came into effect on January 28, 2016. This Higher Level Plan (HLP) establishes a number of objectives related to ecosystem based management that pertain to the entire area covered by this FSP.

6.1.1 GBRO PART 1 DIVISION 2 – FIRST NATIONS AND GBRO PART 3 DIVISION 2 - FIRST NATIONS

Part 1 Division 2

3. Objective for first nation information sharing and engagement

For the purpose of implementing and achieving the intent of the objectives in this land use order conduct First Nation Engagement with Applicable First Nations.

Part 3 Division 2

3. Objective for first nation information sharing and engagement

- (1) For the purpose of implementing and achieving the intent of the objectives in this land use order conduct First Nation Engagement with Applicable First Nations.

4. Objective for identification of Aboriginal Forest Resources and Aboriginal Heritage Features

- (1) In Development Areas, through field reconnaissance or field assessments and First Nation Engagement as appropriate in areas proposed for road building or harvesting, identify Aboriginal Forest Resources, Aboriginal Heritage Features, Historical Culturally Modified Trees, Contemporary Culturally Modified Trees, Monumental Cedar and Cultural Cedar Stands.

5. Objective for Aboriginal Forest Resources

- (1) Maintain or enhance Aboriginal Forest Resources in sufficient quantity and manner to support Applicable First Nations' present and future stewardship and use of those resources.
- (2) Despite subsection (1), Aboriginal Forest Resources may be harvested or altered in order to meet silvicultural obligations, provided there has been First Nation Engagement with Applicable First Nations.

6. Objectives for Aboriginal Heritage Features

- (1) In Development Areas, protect Type 1 Aboriginal Heritage Features.
- (2) Adjacent to Type 1 Aboriginal Heritage Features, maintain a Reserve Zone with a minimum width of 200 metres, measured from the edge of the Type 1 Aboriginal Heritage Feature, to protect the Type 1 Aboriginal Heritage Feature.
- (3) Despite subsections (1) and (2), the Type 1 Aboriginal Heritage Feature and the Reserve Zone may be modified with the support of, or lack of objection from, the Applicable First Nation.
- (4) Despite subsections (2) and (3), the Reserve Zone may be modified when:
 - (a) Alternative measures are implemented to avoid, mitigate or otherwise address impacts on the Type 1 Aboriginal Heritage Feature;
 - (b) There has been First Nation Engagement with Applicable First Nations regarding the alternative measures; and
 - (c) The modification is required for road access, other infrastructure, or to address a safety concern and there is no practicable alternative.
- (5) In Development Areas, protect Type 2 Aboriginal Heritage Features.
- (6) Adjacent to Type 2 Aboriginal Heritage Features, maintain a Reserve Zone with a minimum width of 1 Tree Length measured from the edge of the feature, and a Management Zone with an average minimum width of 0.5 Tree Lengths measured from the outer edge of the Reserve Zone to protect the Type 2 Aboriginal Heritage Feature from site-specific local hazards and windthrow.
- (7) Despite subsections (5) and (6), the Type 2 Aboriginal Heritage Feature and its Reserve Zone and Management Zone may be modified with the support of, or lack of objection from, the Applicable First Nation.
- (8) Despite subsections (5), (6) and (7) , the Type 2 Aboriginal Heritage Feature may be altered or removed and the Reserve Zone and Management Zone may be modified when:
 - (a) Alternative measures are implemented to avoid, mitigate or otherwise address impacts on the Type 2 Aboriginal Heritage Feature;

- (b) There has been First Nation Engagement with Applicable First Nations regarding the alternative measures; and
- (c) The alteration or removal is required for road access, other infrastructure, or to address a safety concern and there is no practicable alternative.

7. Objectives for Historical Culturally Modified Trees

- (1) In Development Areas, protect Historical Culturally Modified Trees.
- (2) Adjacent to Historical Culturally Modified Trees, maintain a Management Zone of sufficient width and design to protect the Historical Culturally Modified Trees from site specific local hazards and windthrow.
- (3) Despite subsections (1) and (2), the Historical Culturally Modified Tree and the Management Zone may be modified with the support of, or lack of objection from, the Applicable First Nation.
- (4) Despite subsections (1), (2) and (3), a Historical Culturally Modified Tree and the Management Zone may be altered or harvested if there has been First Nation Engagement with Applicable First Nations; and
 - (a) Alteration or harvesting is required for road access, other infrastructure, or to address a safety concern and there is no practicable alternative; or
 - (b) Protection of all of the Historical Culturally Modified Trees in the cutting permit area or timber sale licence area would make harvesting economically unviable.

8. Objectives for Aboriginal Tree Use

- (1) Maintain a sufficient volume and quality of western red cedar, yellow cedar and other tree species to support the Applicable First Nations' present and future Aboriginal Tree Use.
- (2) In Cedar Stewardship Areas, maintain, and recruit as necessary, Monumental Cedar, western red cedar and yellow cedar in a quantity sufficient to support the Applicable First Nations' present and future Aboriginal Tree Use.
- (3) Within Development Areas, retain Monumental Cedar with windfirm buffers and Cultural Cedar Stands in a quantity sufficient to support the Applicable First Nations' Aboriginal Tree Use.
- (4) For the purposes of subsection (3), a Monumental Cedar and its windfirm buffer, or a Cultural Cedar Stand, may be altered or harvested provided that there has been First Nation Engagement with Applicable First Nations; and
 - (a) It has been determined that the Monumental Cedar or Cultural Cedar Stand is not suitable or is not required for a cultural cedar use;
 - (b) The Monumental Cedar or Cultural Cedar Stand will be provided to the Applicable First Nation;

- (c) The harvesting is required for road access, other infrastructure, or to address a safety concern and there is no practicable alternative; or
 - (d) Retention of all of the Monumental Cedar and Cultural Cedar Stands in the Cutblock area would make harvesting economically unviable.
- (5) Within a Cutblock, for the first 15% of the pre-harvest stand retained in Stand Retention as specified in section 17(1), design Stand Retention to maintain mature and old western red cedar and yellow cedar representative of the pre-harvest stand.

9. Objectives for retention of western yew

- (1) In Development Areas, retain western yew trees.
- (2) Despite subsection (1), western yew trees may be altered or harvested if:
 - (a) Alteration or harvesting is required to accommodate operational requirements for road and bridge construction and there is no practicable alternative; or
 - (b) the retention of all western yew trees in a Cutblock would make harvesting economically unviable and measures are implemented to provide for use of the altered or harvested western yew trees by Applicable First Nations.
- (3) Where practicable, include western yew trees in Stand Retention.
- (4) All areas retained or managed in accordance with subsections (1), (2) and (3) must be documented and submitted as digital spatial data at the end of each calendar year to the Applicable First Nation and the Province of British Columbia.

Applicable Area: All FDUs

Result or Strategy:

Approach to Harvesting and Roads

1.1 Definitions

In Paragraph 1.3:

- (a) **“annually”** means once per calendar year; and
- (b) **“proposed development area”** means areas proposed for cutblock harvesting and/or road construction; and
- (c) **“new”**, in reference to proposed development areas, refers to areas not previously forwarded to the First Nation; and
- (d) **“established formal agreement”** means an agreement, between a First Nation or a group of First Nations and the holder of this FSP, that specifies the process, manner

and timelines under which information sharing will take place and that is updated and revised over time; and

- (e) “**yew tree**” means a yew tree that is a minimum of 10 cm diameter at breast height or as defined by the applicable First Nation through engagement as outlined under this FSP..

1.2 If the holder of this FSP conducts Primary Forest Activities the holder of this FSP will carry out these activities consistent with the objectives in 6.1.1 First Nations Objectives.

1.3 If the holder of this FSP conducts Primary Forest Activities the holder of this FSP will:

- (a) Annually or more frequently conduct information sharing with applicable First Nations. This information sharing will involve:

- (i) Adhering to an established formal agreement, or, where an established formal agreement is not in place, engage with applicable First Nations to develop a formal agreement while in the meantime engaging with the applicable First Nation and providing the applicable First Nation with any requested information, including but not limited to:
- (ii) Providing a 1:30,000 or larger scale map in a format agreeable to applicable First Nations and illustrating both new proposed development areas and development areas previously shared;
- (iii) Providing, unless not desired, digital shape files for new proposed development areas;
- (iv) Requesting updated information on traditional forest resources, aboriginal heritage features, historically culturally modified trees and cultural use needs for monumental cedar, Western red cedar, Yellow cedar, yew and other species; and
- (v) Requesting a meeting to review information described in (i), (ii), (iii) and (iv) above.

- (b) Annually request, from the Ministry of Forests, Lands and Natural Resource Operations (MFLNRO), updated information, for applicable First Nations, concerning traditional forest resource, traditional heritage features, culturally modified tree and cultural use needs for monumental cedar, Western red cedar and Yellow cedar and other species.

- (c) Subject to updated information received under (a) and (b) above, the holder of this FSP will:

- (1) inform the applicable First Nation and the MFLNRO, in writing and prior to any development, of the changes to the proposed development that resulted from this new information, and

- (2) collaborate with applicable First Nations and, where applicable, other forest licencees, to develop a cedar strategy within the respective traditional territories of the applicable First Nations with the goal to annually make incremental improvements in the understanding of volume, quality and location of Aboriginal Tree needs,
- (d) Where practicable and consistent with primary forest activities, design development to incorporate traditional forest resources, aboriginal heritage features, historically culturally modified trees, monumental cedar, western red cedar, yellow cedar and yew trees into wildlife tree retention areas, riparian management areas, landscape reserve designs and similarly retained areas.
- (e) All proposed developments that require alternative practices or strategies to the default practices or strategies of the GBRO will be information shared, including rationales developed by Qualified Professionals, with applicable First Nations.

6.1.2 GBRO PART 1 DIVISION 3 - BIODIVERSITY

4. Objectives for ecological representation

- (1) Maintain landscape level biodiversity as follows:
 - (a) For each Site Series Group in the order area, maintain a distribution of forest stand ages that will achieve the Old Forest Representation Targets listed in Column "A" in Schedule G by no later than 2264;
 - (b) For each Site Series Group in the order area, retain an amount of Old Forest equal to or greater than the order area Minimum Old Forest Retention Levels listed in Column "B" in Schedule G, and;
 - (c) For the purposes of subsections (1)(a) and (1)(b), for each Site Series Group in a Landscape Unit, retain a minimum of 30% of the total forest area of the Site Series Group as Old Forest.
- (2) Despite subsection (1)(c), harvesting of Old Forest in a Site Series Group in a Landscape Unit may occur where less than 30% of the total forest area of the Site Series Group in the Landscape Unit is Old Forest, provided that:
 - (a) Within the Landscape Unit area:
 - (i) Alteration or harvesting is required for road access, other infrastructure, or to address a safety concern, where there is no practicable alternative; or
 - (ii) The lesser of 20% of the total forest area or the Minimum Old Forest Retention Level specified in Schedule F is maintained as Old Forest; and
 - (b) The aggregate area of Old Forest in the order area harvested under subsection (2)(a) following the date of establishment of this order does not exceed 18,650 hectares.

- (3) For each Site Series Group listed in Schedule L, in the Landscape Units listed in Schedule K, up to 5% of the area required to meet the minimum Old Forest requirements specified in subsection (1)(c) or (2)(a)(ii) can be met in forest that is not Old Forest where this results in an improved ecological outcome.
- (4) Where there is not enough Old Forest available to meet the targets in subsections (1)(b) and (1)(c), or as a result of subsection (2), recruit forest to meet the Old Forest requirements by no later than 2264.
- (5) Despite subsections (1)(c) and (2)(a)(ii), for each Site Series Group listed in Schedule L, up to 5% of the area required to meet the minimum Old Forest requirements specified in subsections (1)(c) or (2)(a)(ii) may be met in Old Forest in a higher level Site Series Group in the same variant.
- (6) Despite subsections (1)(c), (2)(a)(ii), and (5), for each Site Series Group listed in Schedule M, and despite subsection (1)(a) for each Site Series Group in the CWHxm2, CWHdm and CWHmm1 biogeoclimatic variants, up to 5% of the combined area of each Site Series Group in the Thurlow, Fulmore, Gray and Estero Landscape Units required under subsections (1)(c) and (2) to meet the target for that Site Series Group may be met in an equal or higher level Site Series Group listed in Schedule M in any of the four Landscape Units.

5. Objectives for Landscape Reserve Designs

- (1) For each Landscape Unit in the order area, prepare a Landscape Reserve Design that:
 - (a) Addresses the Minimum Old Forest Retention Levels specified in sections 4(1)(c) and 4(2), the Old Forest Representation Targets specified in sections 4(1)(a) and 4(1)(b) and the Managed Forest area specified in section 6(1)(a); and
 - (b) To the extent practicable simultaneously contributes to the protection and stewardship of:
 - (i) Aboriginal Heritage Features, Aboriginal Forest Resources, and Aboriginal Tree Use; and
 - (ii) Red-Listed Plant Communities, Blue-Listed Plant Communities, habitat important for species at risk, ungulate winter range, and habitat for regionally important wildlife including, but not limited to, mountain goats, grizzly bears, northern goshawks, tailed frogs, and marbled murrelets.
- (2) For the purposes of subsection (1)(a), when preparing a Landscape Reserve Design, the provisions in sections 4(3), 4(5) and 4(6) shall apply.
- (3) No commercial timber harvesting is permitted in a Landscape Reserve Design.
- (4) For the purposes of subsection (1):
 - (a) Complete Landscape Reserve Designs within five years of the date of establishment of this order in those Landscape Units where harvesting is occurring or planned to commence within 5 years; or
 - (b) Complete Landscape Reserve Designs prior to declaring areas or prior to the application for a road permit or cutting permit in those Landscape Units where

harvesting is currently not occurring or is not planned to commence within 5 years.

- (5) Despite subsection (1)(a), for each Site Series Group in a Landscape Unit, a percentage of the Old Forest Representation Targets specified in section 4(1)(a) equivalent to 75% of the Average Operational Landbase Netdown for that Site Series Group is not required to be spatially defined until 2264.
- (6) Holders of licenses or tenures with an allowable annual cut of less than 20,000 cubic metres per year are exempt from subsections (1) and (4).
- (7) For the purposes of subsection (1), where because of harvest history or landscape characteristics or where not practicable to meet Minimum Old Forest Retention Levels in a Landscape Reserve Design:
 - (a) Forest that is not Old Forest may be included in the Landscape Reserve Design; and
 - (b) Establish Temporary Old Forest Reserves outside of the Landscape Reserve Design, with an area sufficient to meet the Landscape Unit Minimum Old Forest Retention Level.
- (8) Despite subsection (3), thinning and silvicultural treatments are permitted in Landscape Reserve Designs to expedite restoration to Old Forest structural characteristics.
- (9) Old Forest in a Site Series Group within a Temporary Old Forest Reserve established under subsection (7)(b) may be harvested when:
 - (a) In the Type 1 Restoration Landscape Units referenced in section 7(1)(a), there has been sufficient recruitment of Old Forest in that Site Series Group to meet Old Forest Representation Targets within a Landscape Reserve Design; or
 - (b) In any Landscape Unit not referenced in section 7(1)(a), an equivalent area of younger forest in that Site Series Group in a Landscape Reserve Design in that Landscape Unit becomes Old Forest.
- (10) A Landscape Reserve Design may be altered or modified to address new information provided that:
 - (a) A Qualified Professional develops an alternative Landscape Reserve Design;
 - (b) The alternative Landscape Reserve Design meets the requirements of subsections (1) and (5); and
 - (c) Any area removed from the altered Landscape Reserve:
 - (i) Where none of the flexibility provisions in sections 4(3), 4(5) and 4(6) apply, is replaced with an equivalent area of forest in the same Site Series Group, and that is in the same seral stage or has similar stand structural characteristics; or
 - (ii) Where a flexibility provision in section 4(3), 4(5) or 4(6) applies, is replaced with an equivalent area of forest, consistent with that flexibility provision.

6. Objectives for Managed Forest and Natural Forest

- (1) Identify and maintain in the order area:
 - (a) An area of Managed Forest of 550,032 hectares that is or will be available for timber harvest; and
 - (b) A Natural Forest area that continues to grow older over time subject to natural disturbance and non - forest tenure activity, and has an area of 3,108,876 hectares.

7. Objectives for Restoration Zones and Restoration Landscape Units

- (1) Restore landscape level biodiversity in Landscape Units with extensive past forest development activity by:
 - (a) Within Landscape Reserve Designs in each Type 1 Restoration Landscape Unit listed in Schedule H, designating a minimum of 30% of each Site Series Group as a Restoration Zone within two years of the date of establishment of this order, or as soon as practicable thereafter; and
 - (b) Within Landscape Reserve Designs in each Type 2 Restoration Landscape Unit listed in Schedule H, designating a minimum of 30% of each Site Series Group as a Restoration Zone prior to any development activity that will result in more than 30% of the Landscape Unit area being within Site Series Groups containing less than 30% total Old Forest.
- (2) For the purposes of subsections (1)(a) and (1)(b), when designating a Restoration Zone within a Landscape Reserve Design, the provisions in sections 4(3), 4(5) and 4(6) shall apply.
- (3) The boundaries of a Restoration Zone may be altered or modified to address new information, provided that:
 - (a) A Qualified Professional develops an alternative Landscape Reserve Design;
 - (b) The alteration or modification is required to address an operational access, infrastructure or safety issue and there is no practicable alternative;
 - (c) The alteration or modification maintains or improves ecological outcomes;
 - (d) Any area removed from the Restoration Zone:
 - (i) Where none of the flexibility provisions in sections 4(3), 4(5) and 4(6) apply, is replaced with an equivalent area of forest in the same Site Series Group, and that is in the same seral stage or has similar stand structural characteristics; or
 - (ii) Where a flexibility provision in section 4(3), 4(5) or 4(6) applies, is replaced with an equivalent area of forest, consistent with that flexibility provision;
 - (e) Any area removed from the Restoration Zone for safety reasons that does not also maintain or improve ecological outcomes must be replaced with an equivalent area of forest, consistent with the flexibility provisions in sections 4(3), 4(5) and 4(6); and

- (f) The boundary alteration for an individual Restoration Zone in a Landscape Unit does not exceed 10 hectares in a calendar year.
- (4) Despite subsection (3)(f), a boundary alteration for an individual Restoration Zone in a Landscape Unit may exceed 10 hectares per year provided that a documented rationale for the alteration is prepared by a Qualified Professional.

Applicable Area: All FDUs

Result or Strategy:

Objectives for Ecological Representation

Objectives for Landscape Reserve Designs

Objectives for Managed Forest and Natural Forest

Objectives for Restoration Zones and Restoration Landscape Units

Approach to Harvesting and Roads

1. The holder of the FSP will coordinate with other Holders of FSPs and a G2G Operational Implementation Committee (OPIC), to the extent practicable, to obtain results consistent with the Order area objectives, in Landscape Units and between and among Holders of FSPs.
2. For the Order Area, the Holder of the FSP will:
 - 2.1. Use the non-binding table “Implementation Guidance Table – Old Forest Targets by Landscape Unit” as an aid or starting point in the achievement of the legally specified site series group old forest requirements for the Order area.
 - 2.2. Reach agreement on specifying targets or specifying proportions of the Order area ecological representation and managed forest objectives including the flexibility in GBRO Part 1 ss 4(2)-4(6), and allocate to the Landscape Units; and update targets on an agreed period or as required.
 - 2.3. If fair and effective agreement cannot be reached: will apply the Implementation Guidance Table until agreement is reached and notify the other Holders; or will request the Minister to act under FPPR s 19.
3. For the lands to which the Order applies in each Landscape Unit in which the Holder of the FSP holds tenures with active planning or operations, the Holder of the FSP will:
 - 3.1. Apply above strategies 1. and 2.

- 3.2. Reach agreement on targets or proportions of ecological representation and managed forest including the flexibility in GBRO ss 4(2)-4(6), identify drawdowns and small surpluses, and identify procedures for managing Landscape Reserves, between and amongst Holders of FSPs,
- 3.3. If fair and effective agreement cannot be reached: in the interim, the Holder may proportion the LU representation targets by total forest area, and proportion the minimum old, between Holders of FSPs, identifying surpluses, and inform the other Holders, and may not develop Landscape Reserves established by other Holders; or, the Holder of the FSP may request the Minister to act under FPPR s 19.
4. The holder of the FSP will participate in designing LRDs and Restoration Zones that are consistent with Order objectives, and will:
 - 4.1. Design a single LRD with all Holders of FSPs in the Landscape Unit (including those that are exempt from leading an LRD).
 - 4.2. Complete LRDs within the Order's timelines, and designate Restoration Zones within the Order timelines, unless there are no planned operations within the Landscape Unit.
 - 4.3. Agree as necessary on methods for altering or modifying LRDs (eg. Order Part 1 ss 5(3), 5(10) and related LRD guidance), that will be consistent with meeting proportional targets and avoiding undue constraints between Holders of FSPs.
5. In applying above strategies 1 – 4 in relation to operational planning, site plans or development areas, the Holder of the FSP may use strategic TEM/PEM and VRI age inventories for SSG old forest requirements.
6. The operations of the Holder of this FSP will be consistent with meeting the agreed upon target allocations or specified proportions of the ecological representation targets that define the natural forest and the managed forest targets, in:
 - 6.1. The landscape units in which the Holder of the FSP operates and in the LRD when completed;
 - 6.2. The areas of the timber harvesting rights granted by the government to the Holder of the FSP; and
 - 6.3. Areas to which the LUO applies.

7. Until such time as the GBRO Field Manual for Old Forest is approved by MFLNRO, or there is another approach approved by MFLNRO for defining stands with remnant old trees as Old Forest, the holder of this FSP will define a stand of trees that contains remnant old trees as old forest provided that it meets the following criteria:

- 7.1. Definitions

- 7.1.1. **“Veteran Overstory Tree”** means a tree that is at least 80 years older than the main stand and either 25% greater in height or 50% greater in diameter at breast height (dbh) than the average dbh of the codominant and dominant trees of the same species in the main stand.

- 7.1.2. **“Tree Score”** is a numerical value assigned to each veteran overstory tree that is based on the dbh of the veteran overstory tree. The minimum tree score is 1.0. For each decimeter increase in dbh over 1.0, the tree score is increase by 0.1.

- 7.2. For a stand of trees with a harvesting disturbance history, the stand will be considered to be old forest if it contains a layer of veteran overstory trees with a tree score of 25/ha or greater

- 7.3. For a stand of trees without a harvesting disturbance history, the stand will be considered to be old forest if it contains a layer of veteran overstory trees with a tree score of 15/ha or greater.

- 7.4. In both 7.2 and 7.3 above, the minimum polygon size is 1.0 hectares. For stands mainly comprised of old trees, the minimum polygon size is 0.25 hectares.

GBRO PART 2 - CENTRAL AND NORTH COAST

Part 2 of the GBRO does not apply to any FDUs of this FSP.

GBRO PART 3 – SOUTH AND CENTRAL COAST

First Nation Objectives 3 to 9

Refer to 6.1.1 above for results or strategies for GBRO Part 3 First Nations Objectives 3 to 9.

6.1.3 OBJECTIVES FOR IMPORTANT FISHERIES WATERSHEDS

10. Objective:

- (1) Maintain hydrological and fluvial processes in watersheds within a range of natural variation by maintaining an Equivalent Clearcut Area of less than 20% in each of the important fisheries watersheds shown in Schedule E.
- (2) Despite subsection (1), an equivalent clearcut area of more than 20 % may be maintained provided that:
 - (a) There has been First Nations engagement with applicable First Nations;
 - (b) a coastal watershed assessment or similar assessment of watershed sensitivity to forest development disturbance is completed by a Qualified Professional;
 - (c) an amount, type and distribution of forest cover sufficient to sustain natural hydrological and fluvial processes within the watershed is maintained, and
 - (d) the effectiveness of the management strategies implemented pursuant to subsection (2) (c) are monitored

Applicable Area: All FDUs

Result or Strategy:

Approach to Harvesting and Roads

- 1.1 If the holder of this FSP conducts primary forest activities the holder will carry out such activities to comply with the Objectives for important fisheries watersheds.

6.1.4 OBJECTIVES FOR HIGH VALUE FISH HABITAT

11. Objective:

- (1) Protect and maintain High Value Fish Habitat by, in a Development Area, maintaining an adjacent Reserve Zone with a minimum width of 1.5 Tree Lengths and do not alter or harvest the forest in the reserve zones unless there is no practicable alternative.
- (2) Despite subsection (1), the width of the Reserve Zone may be decreased at specific locations to address site characteristics and values, provided that:
 - (a) A decrease is not more than 0.5 Tree Lengths; and
 - (b) There is no net loss of the minimum Reserve Zone area in the Development Area

- (3) Despite subsections (1) and (2), the width of the Reserve Zone may be decreased by more than 0.5 Tree Lengths provided that:
 - (a) There has been First Nation Engagement with Applicable First Nations;
 - (b) There is no net loss of Reserve Zone area required in subsection (1) in the Development Area;
 - (c) An aquatic habitat assessment has been prepared by a Qualified Professional that specifies measures:
 - (i) To maintain the geomorphic and hydroriparian characteristics of the stream channel;
 - (ii) To maintain the life cycle needs of fish in affected stream reaches;
 - (iii) To maintain local terrestrial habitat needs and linkages to other reserves; and
 - (iv) To minimize loss of trees in the Reserve Zone from windthrow; and
 - (d) The measures in subsection (3)(c) are implemented.

- (4) Despite section (1) (2) and (3), for the lower portion of the Klinaklini River and its tributaries identified in Schedule P, and for the lower portion of Viner Creek identified in Schedule P, maintain a reserve zone width of 100m on each side of the Natural Boundary, unless there is no practicable alternative for future road access, other infrastructure, or to address a safety concern. Existing road access and infrastructure is exempt from this reserve provision.

- (5) Where some or all of the forest required under subsections (2) and (3) has been previously altered or harvested, to the extent practicable, recruit or create Functional Riparian Forest in the Reserve Zone in the shortest possible time.

Applicable Area: All FDUs

Result or Strategy:

Approach to Harvesting and Roads

- 1.1 If the holder of this FSP conducts primary forest activities the holder will carry out such activities to comply with the objectives for high value fish habitat. Subsection (4) is not applicable to the plan area.

- 1.2 The holder of this FSP defines kelp beds as dense islands of kelp >0.3 ha in size. Kelp islands are large enough to intercept large woody debris and act as refuge for large fish from predators. It does not include the narrow linear strip of kelp found near many shorelines.

6.1.5 OBJECTIVES FOR AQUATIC HABITAT THAT IS NOT HIGH VALUE FISH HABITAT

12. Objective:

- (1) Maintain the natural ecological function of aquatic habitat that is not High Value fish Habitat by, adjacent to the following aquatic habitat in a Development Area:
 - (a) S1 to S3 streams that are not high Value Fish Habitat;
 - (b) Lakes greater than 0.25 hectares; and
 - (c) Marsh and fen wetlands greater than 0.25 ha retaining 90% of the forest in a Management Zone with a minimum width of 1.5 Tree Lengths.
- (2) Despite subsection (1), the width of the management zone in any Development Area may be decreased by up to 0.5 Tree Lengths to address site characteristics, provided there is no net loss of Management Zone area within the Development Area
- (3) Despite subsections (1) and (2), the width of the Management zone may be increased or decreased by more than 0.5 Tree Lengths and alteration or harvesting within the Management Zone may occur provided that:
 - (a) there has been First Nations Engagement with Applicable First Nations
 - (b) there is no net loss of Management Zone area required in (1) in the Development Area;
 - (c) a fish habitat assessment has been prepared by a Qualified Professional that specifies measures:
 - (i) to maintain the geomorphic and hydroriparian characteristics of the stream channel;
 - (ii) to maintain the life cycle needs of fish in affected stream reaches;
 - (iii) to maintain local terrestrial habitat needs and linkages to other reserves; and
 - (iv) to minimize loss of trees in the Reserve Zone from windthrow; and
 - (d) Measures in subsection 3 (c) are implemented.
- (4) Despite subsections (1), (2) and (3), a forest stewardship plan may comply with the provisions for the management of riparian management areas in accordance with the Forest and Range Practices Act and the regulations made thereunder including Part 4, Division 3 of the Forest Planning and Practices Regulation, as of December

31, 2014, for S1 to S3 streams and for lakes, and marsh and fen wetlands greater than 0.25 hectares.

- (5) Alteration or harvesting within the riparian management area described in subsection (4) may occur provided that:
 - (a) There has been First Nation Engagement with Applicable First Nations;
 - (b) Functional Riparian Forest sufficient to maintain bank stability and stream channel integrity is retained;
 - (c) Indicators to be tracked have been identified to evaluate the effectiveness of the recommended riparian strategies; and
 - (d) The effectiveness of representative riparian strategies using identified indicators is evaluated.
- (6) Where some or all of the forest required in subsection (1) or (4) has been previously altered or harvested, to the extent practicable, recruit Functional Riparian Forest in that Management Zone or riparian management area in the shortest possible time practicable.

Applicable Area: All FDUs

Result or Strategy:

Approach to Harvesting and Roads

- 1.1 If the holder of this FSP conducts primary forest activities the holder will carry out such activities to comply with the objectives for fish habitat that is not high value fish habitat. In instances where sections (4) and (5) of the above objective for fish habitat that is not high value habitat are utilized, primary forest activities will be consistent with section 8.5 of this FSP.

6.1.6 OBJECTIVES FOR FORESTED SWAMPS

11. Objective:

- (1) Maintain the ecological characteristics and function of Forested Swamps.
- (2) Within Development Areas, adjacent to Forested Swamps greater than 0.25 hectares, retain 70% of the Functional Riparian Forest in a Management Zone with a minimum width of 1.5 Tree Lengths.
- (3) Despite subsection (2), the width of the Management Zone adjacent to a Forested Swamp may be decreased by up to 0.5 Tree Lengths to address site specific values.

- (4) Despite subsections (2) and (3), the width of the Management Zone may be decreased by more than 0.5 Tree Lengths and additional harvesting in the Management Zone may occur provided that:
 - (a) There has been First Nations Engagement with applicable First Nations;
 - (b) A Forested Swamp assessment has been prepared by a Qualified Professional that specifies measures:
 - (i) To maintain local terrestrial habitat needs and linkages to other reserves, and
 - (ii) To minimize loss of trees in the Management Zone from windthrow, and
 - (c) Measures in subsection (4)(b) are implemented.
- (5) Where some or all of the forest within the Management Zone required in subsection (2), (3) or (4) has been previously altered or harvested, to the extent practicable, recruit or create Functional Riparian Forest in that Management Zone in the shortest time practicable.

Applicable Area: All FDU's

Result or Strategy:

Approach to Harvesting and Roads

- 1.1 If the holder of this FSP conducts primary forest activities the holder will carry out such activities to comply with the objectives for forested swamps.

6.1.7 OBJECTIVES FOR UPLAND STREAM AREAS

14. Objective:

- (1) Maintain the hydrological and fluvial processes in the portion of Important Fisheries Watersheds shown in schedule E that is occupied by Upland Streams.
- (2) For the purposes of subsection (1), within the Important Fisheries watersheds shown in Schedule E, in the portion of the watershed where Upland Streams occur, maintain a minimum of 70% of the forest as Functional Riparian Forest.
- (3) For the purposes of subsection (2), preferably allocate the Functional Riparian forest to encompass:
 - (a) Upland Streams that flow into High Value Fish Habitat and fish habitat that is not High Value Fish Habitat and that pose a moderate to high risk of sediment transport;
 - (b) Upland Stream reaches with unique microclimate or other rare ecological or sensitive geomorphological characteristics;

- (c) Upland Stream reaches with known tailed frog habitat; and
 - (d) Other Upland Streams that flow into High Value Fish Habitat and fish habitat that is not High Value fish Habitat;
- (4) Despite subsection (2), in the portion of the Important Fisheries Watershed where Upland Streams occur, less than 70% of the forest may be maintained as Functional Riparian Forest provided that:
- (a) There has been First Nation Engagement with Applicable First Nations;
 - (b) A coastal watershed assessment or similar assessment of watershed sensitivity to forest development disturbance is completed by a Qualified Professional;
 - (c) An amount, type and distribution of forest cover sufficient to sustain natural hydrological and fluvial processes within the portion of the watershed where Upland Streams occur is maintained; and
 - (d) The effectiveness of the management strategies implemented pursuant to subsection (4)(c) are monitored.

Applicable Area: All FDUs

Result or Strategy:

Approach to Harvesting and Roads

- 1.1 If the holder of this FSP conducts primary forest activities the holder will carry out such activities to comply with the objectives for upland streams.

6.1.8 OBJECTIVES FOR ACTIVE FLUVIAL UNITS

15. Objective:

- (1) Retain 90% of the functional riparian forest on active fluvial units.
- (2) Despite subsection (1), less than 90% of the forest on an Active Fluvial Unit may be retained to allow for road access or to address a safety concern, provided that:
 - (a) There has been First Nation Engagement with Applicable First Nations;
 - (b) No practicable alternative to access a Development Area is available;
 - (c) An Active Fluvial Unit assessment has been prepared by a Qualified Professional that:
 - (i) Specifies measures to maintain stream flow patterns and flow capacity and geomorphic stability of the Active Fluvial Unit for roads or other

infrastructure; or

- (ii) Where the removal of 4 or more live trees is proposed for safety reasons, provides an assessment of the potential impact on geomorphic stability; and
 - (d) The measures in subsection (2)(c) are implemented in a manner that will maintain the flow patterns and flow capacity and geomorphic stability of the Active Fluvial Unit.
- (3) Where some or all of the forest required to be retained in subsection (1) has been previously altered or harvested, to the extent practicable, recruit or create Functional Riparian Forest on the Active Fluvial Unit in the shortest time practicable.

Applicable Area: All FDUs

Result or Strategy:

Approach to Harvesting and Roads

- 1.1 If the holder of this FSP conducts primary forest activities the holder will carry out such activities to comply with the objectives for active fluvial units.

6.1.9 OBJECTIVES FOR RED LISTED AND BLUE LISTED PLANT COMMUNITIES

16. Objective:

- (1) Protect each occurrence of a Red-Listed Plant Community during a primary forest activity as per Schedule N.
- (2) Despite subsection (1), up to 5% of each occurrence of a Red-Listed Plant Community may be disturbed if there is no practicable alternative for road access, other infrastructure or to address a safety concern.
- (3) Reserve a minimum of 70% of each occurrence of a Blue-Listed Plant Community during a primary forest activity or protect at least 70% of the total area of each Blue-listed Plant Community within a Landscape Unit as per Schedule O.

Applicable Area: All FDUs

Result or Strategy:

Approach to Harvesting and Roads

- 1.1 If the holder of this FSP conducts primary forest activities the holder will carry out such activities to comply with the objective for red listed and blue listed plant communities.

1.2 Until such time as the Field Manual for Red-Listed and Blue-Listed Plant Communities is approved by MFLNRO, or until there is another approach approved by MFLNRO to identify a sufficiently established plant community, as defined in Schedules N and O, the holder of this FSP will consider that a sufficiently established plant community may only exist in stands that:

1.21 Have an inventory age of 120 years or greater;

1.22 Are a floodplain ecosystem, or

1.23 Have a veteran overstory tree layer that meets the following criteria:

1.23.1 Definitions

1.23.1.1 **“Veteran Overstory Tree”** means a tree that is at least 80 years older than the main stand and either 25% greater in height or 50% greater in diameter at breast height (dbh) than the average dbh of the codominant and dominant trees of the same species in the main stand.

1.23.1.2 **“Tree Score”** is a numerical value assigned to each veteran overstory tree that is based on the dbh of the veteran overstory tree. The minimum tree score is 1.0. For each decimeter increase in dbh over 1.0, the tree score is increase by 0.1.

1.23.2 For a stand of trees with a harvesting disturbance history, the stand will be considered to have a veteran overstory tree layer if it contains a layer of veteran overstory trees with a tree score of 25/ha or greater.

1.23.3 For a stand of trees without a harvesting disturbance history, the stand will be considered to have a veteran overstory tree layer if it contains a layer of veteran overstory trees with a tree score of 15/ha or greater.

1.23.4 In both 1.22.2 and 1.22.3 above, the minimum polygon size is 1.0 hectares. If a veteran overstory tree layer is determined to exist, the minimum polygon size for a listed plant community will be as per Schedules N and O of the Order.

6.1.10 OBJECTIVES FOR STAND LEVEL RETENTION

17. Objective:

(1) Maintain forest structure and diversity at the stand level:

(a) By maintaining a minimum of 15% of a Cutblock area as Stand Retention; and

(b) In Cutblocks 20 hectares or greater in size, by distributing a minimum of 50% of the Stand Retention within the Cutblock, except in:

- (i) Second growth stands where a windthrow hazard assessment indicates a moderate or high biophysical hazard for windthrow; and
 - (ii) Old Forest stands where local knowledge has identified the potential for catastrophic inflow and outflow winds.
- (2) To the extent practicable, include the following within stand retention:
- (a) Aboriginal Forest Resources that are maintained or enhanced by retention of mature or older forest;
 - (b) Habitat elements important for species at risk, ungulate winter range, and regionally important wildlife;
 - (c) Representation of ecosystems and plant communities listed in Schedules N and O;
 - (d) Functional Riparian Forest adjacent to Active Fluvial Units, Forested Swamps, fen and marsh wetlands and Upland Streams with unique features or moderate or higher risk of sediment transport;
 - (e) Western red cedar and yellow cedar for future Aboriginal Tree Use;
 - (f) Western yew;
 - (g) Within restoration landscape units, remnant patches of Old Forest in Site Series Groups where less than 30% of the total forest area is Old Forest; and
 - (h) Wildlife trees and coarse woody debris.

Applicable Area: All FDU's

Result or Strategy:

Approach to Harvesting and Roads

- 1.2.1 If the holder of this FSP conducts primary forest activities the holder will carry out such activities to comply with the objectives in 6.1.10. For cutblocks where the Great Bear Rainforest Order is not applicable, TimberWest will comply with Objective 8.9 of this FSP.

6.1.11 OBJECTIVES FOR GRIZZLY BEAR HABITAT

18. Objective:

- (1) Maintain 100% of class 1 grizzly bear habitat as shown in Schedule D.
- (2) Despite subsection (1), class 1 grizzly bear habitat polygons may be altered or harvested provided that:
 - (a) There has been First Nations engagement with applicable First Nations;
 - (b) A qualified professional:
 - (i) Completes an assessment that identifies the characteristics of the habitat and linkages, where appropriate, to other grizzly bear habitat, and
 - (ii) Confirms that the alteration or harvesting will result in no net loss of class 1 grizzly bear habitat and connectivity and no functional loss of habitat connectivity, and
 - (c) Measures are implemented that will ensure the alteration or harvesting will not cause a material adverse impact to the suitability of the class 1 grizzly bear habitat.
- (3) Despite subsection (1), class 1 grizzly bear habitat polygons may be altered or harvested for road access or to address a safety concern, provided that:
 - (a) There has been First Nations engagement with applicable First Nations;
 - (b) There is no other practicable alternative for road access or infrastructure, or the alteration or harvesting is required to address a safety concern;
 - (c) That the road right-of-way clearing width is the minimum safe width necessary to accommodate the road;
 - (d) Measures are implemented that, to the extent practicable, will ensure the alteration or harvesting will not cause a material adverse impact to the suitability of the class 1 grizzly bear habitat.

Applicable Area: All FDUs

Result or Strategy:

Approach to Harvesting and Roads

- 1.1 If the holder of this FSP conducts primary forest activities the holder will carry out such activities to comply with the objectives for grizzly bear habitat.

6.1.12 OBJECTIVES FOR GRIZZLY AND BLACK BEAR DENS

18. Objective:

- (1) Protect grizzly Bear Dens and black Bear Dens.
- (2) Adjacent to grizzly Bear Dens, maintain a Reserve Zone with a minimum width of 50 metres.
- (3) Despite subsections (1) and (2), alteration or removal of:
 - (a) A black Bear Den; or
 - (b) A grizzly Bear Den or its Reserve Zone, or both, may occur, provided that:
 - (c) There has been First Nation Engagement with Applicable First Nations;
 - (d) The alteration or removal is required for road access or to address a safety concern and there is no practicable alternative; and
 - (e) The alteration or removal does not occur during the winter hibernation season if the den is occupied.
- (4) In addition to subsections (1) and (2), adjacent to any Reserve Zone required in subsection (2), maintain a Management Zone with an average width equal to 1.0 Tree Length, measured from the outer edge of the Reserve Zone, to protect the integrity of the Reserve Zone.
- (5) Within the Management Zone required under subsection (4), alteration or removal of trees may occur outside of the winter hibernation season to:
 - (a) Accommodate operational requirements for road and bridge construction, where no practicable alternative exists;
 - (b) Accommodate road maintenance and deactivation, the removal of danger trees, and brushing and clearing within the right-of-way, for safety purposes, on any existing road under active tenure; or
 - (c) Mitigate the impact of windthrow.
- (6) All found Bear Dens must be documented and this documentation must be submitted to the Applicable First Nations and the Province of British Columbia at the end of each calendar year.

Applicable Area: All FDUs

Result or Strategy:

Approach to Harvesting and Roads

- 1.1 If the holder of this FSP conducts primary forest activities the holder will carry out such activities to comply with the objectives for grizzly and black bear dens.

7 GRANDPARENTED DESIGNATIONS - (FRPA S. 181)

Grandparented designations are those designations, measures and/or objectives established under the Forest Practices Code Act and continued by Section 181 of FRPA as specified in Section 180(a) – (l) of FRPA. The sections which follow pertain only to those objectives described in S180 as they are relevant to the area under consideration in each of the proposed FDU's for this FSP.

In situations where designations have been continued by legislation, as described above, with no objectives in place these designations are dealt with in the background documentation which accompanies but does not form part of this FSP and the reader is referred to the respective section in that document for clarification.

7.1 ORDER ESTABLISHING PROVINCIAL NON-SPATIAL OLD GROWTH OBJECTIVES

Objective:

To contribute to the conservation of biodiversity, licensees must maintain old forest by biogeoclimatic variant within each landscape unit.

Reference: FRPA S. 5 (1) (b) (ii); FRPA S. 180/181

Applicable Area: Development areas within FDU's F, T and Y declared, pursuant to Section 14(4) of the FPPR, on or prior to March 12, 2008

Result or Strategy:

The Non Spatial Old Growth Order is considered to no longer apply to the FDU's within this FSP. The objectives of the Non Spatial Old Growth Order has been replaced by the objectives in the GBRO.

7.2 RESOURCE FEATURES

Objective: NA

Reference: FPPR S. 70(1); GAR S. 5

7.3 RECREATION RESOURCES

Objective: NA

Reference: FRPA S. 180

Although Recreation Sites and Trails have been legally established, no formal objectives (as required by FRPA Sec 181) were established and therefore no Result or Strategy is required in this FSP.

7.4 LAKESHORE MANAGEMENT ZONES

Objective:

Not applicable; no Lakeshore Management Zones continued under section 180(h) exist in the plan area. Refer to GBRO Sections 6.1.3 to 6.1.8 or to Section 8.5 “Water, Fish Wildlife & Biodiversity within Riparian Areas”, for results and strategies pertaining to riparian area management.

Reference: FRPA S. 180

Applicable Area: NA

Result or Strategy:

No result or strategy is required

7.5 FISHERIES SENSITIVE WATERSHEDS

Objective:

Not applicable; no fisheries sensitive watersheds continued under section 180(f) exist in the plan area. Refer to GBRO Sections 6.1.3 to 6.1.8 or to Section 8.5 “Water, Fish Wildlife & Biodiversity within Riparian Areas”, for results and strategies pertaining to riparian area management.

Reference: FRPA S. 180

Applicable Area: NA

Result or Strategy:

No result or strategy is required.

8 OBJECTIVES SET BY GOVERNMENT & RESULTS OR STRATEGIES UNDER SECTION 149(1) OF THE FRPA

Objectives Set by Government specify those objectives prescribed in legislation in Section 149(1) of the Forest and Range Practices Act. Not all identified resource values have objectives set by government. Licensees are required to prepare results and or strategies to meet these objectives. The subsections which follow address each of the objectives set by government as required by legislation and regulation.

Each objective is addressed in a similar manner including those which do not apply. Objective specific definitions are provided as required to insure that the intent and application is understood. In cases where an objective does not apply, the same level of detail is provided such that the content of this FSP is complete and, in the case of an objective that does not

apply, the nature of what does not apply is as well understood as those objective that do apply to the plan area.

8.1 DEFINITIONS UNDER ACTS

Unless otherwise expressly indicated, or indicated by context, terms used in this FSP have the definition given them, as of the Submission Date, in Forest and Range Practices Act (the “Act”) and the Forest Act and the regulations under them.

“**Qualified Registered Professional**” means;

- (1) A person with the prescribed qualifications, and is licensed by one or more of the following;
 - (a) An agrologist under the *Agrologists Act*,
 - (b) A professional biologist under the *College of Applied Biology Act*,
 - (c) A professional engineer or professional geoscientist under the *Engineers and Geoscientists Act*, or
 - (d) A professional forester under the *Foresters Act* and being authorized under that Act to practice as a professional in relation to the subject matter prescribed under that paragraph or those paragraphs, as the case may be, and;
- (2) Has the appropriate education, experience and training to carry out the activity.

“**Evaluation**” means an assessment conducted by a **Qualified Registered Professional** that examines, on a site specific basis the factors relevant to the Objective Set by Government for that objective as described in *FPPR Schedule 1*. An evaluation includes the development of the necessary prescriptions to ensure that the Objective(s) and practice requirements relevant to the Objective are met.

8.2 DEFINITIONS OF TERMS USED IN RESULTS AND STRATEGIES

“**Date of Submission**” means the date on which the holder of this FSP submitted the FSP for approval by the District Manager

“**Ungulate Winter Range Notice**” means the Notice as it pertains to the relevant Forest District issued to the holder of this FSP by the **Date of Submission** pursuant to section 7(2) of the *Forest Planning and Practices Regulation* (B.C. Reg. 14/2004):

- Campbell River Forest District - December 30, 2004; and
- North Island Central Coast Forest District – December 30, 2004.

8.3 SOILS

Objective:

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.

Reference: FPPR Section 5

Applicable Area: All proposed FDUs

Result or Strategy:

Approach to Harvesting and Roads

1.1 The holder of this FSP will comply with sections 35 & 36 of the *Forest Planning and Practices Regulation* (B.C. Reg. 14/2004).

8.4 WILDLIFE

8.4.1 Ungulate Winter Range

Objective:

“A person required to prepare a forest stewardship plan must specify a result or strategy in respect of the objective stated under subsection (1) only if the Minister of Water, Land and Air Protection, or a designated official, notifies the person of the applicable

- (a) species referred to in subsection (1), and
- (b) indicators of the amount, distribution and attributes of wildlife habitat described in subsection (1).”

Reference: FPPR Section 7(2) & (3)

Applicable Area: None; Ungulate Winter Range does not intersect the plan area.

Result or Strategy: NA

8.4.2 Species at Risk – Campbell River Forest District

The sections which follow describe the strategy that will be used to address species at risk in the Campbell River Forest District (CRFD) where a section 7 notice pertaining to that species has been prepared by government.

Section 7 species at risk notices were prepared for “Queen Charlotte” Goshawk (*Accipiter gentilis laingi*), Coastal Tailed Frog (*Ascaphus truei*) and Red-Legged Frog (*Rana aurora*). Subsequent to the notices, the requirements of the notices within the Campbell River Forest District have been fully met. Thus, results or strategies are no longer required for these species.

Several other species are also listed as “species-at-risk” many of which have recently had their status changed to “at risk”. At this time section seven notices have not been prepared for many of these additional species. Consequently, no results and strategies are necessary at this time.

8.4.2.1 “Queen Charlotte” Goshawk (*Accipiter gentiles laingi*)

Objective:

A person required to prepare a forest stewardship plan must specify a result or strategy in respect of the objective stated under subsection (1) only if the Minister of Water, Land and Air Protection, or a designated official, notifies the person of the applicable

- (a) Species referred to in subsection (1), and
- (b) Indicators of the amount, distribution and attributes of wildlife habitat described in subsection (1)."

Reference: FPPR Section 7(2) & (3)

Applicable Area: All proposed FDUs, CRFD

Result or Strategy: An order has been issued establishing wildlife habitat areas for this species, pursuant to FPPR section 7(3) a result and strategy is not required.

8.4.2.2 Marbled Murrelet (*Brachyramphus marmoratus*)

Objective:

A person required to prepare a forest stewardship plan must specify a result or strategy in respect of the objective stated under subsection (1) only if the Minister of Water, Land and Air Protection, or a designated official, notifies the person of the applicable

- (a) Species referred to in subsection (1), and
- (b) Indicators of the amount, distribution and attributes of wildlife habitat described in subsection (1).

Reference: FPPR Section 7(2)

Applicable Area: All proposed FDUs, CRFD

Result or Strategy:

Approach to Harvesting and Roads

1.1 Prior to a ministerial Order being issued exempting the holder of this FSP from preparing a result and strategy pursuant to FPPR S7 (3), subject to Paragraphs 1.2, within an area in the FDU(s) that is subject to the Species at Risk Notice. The holder will comply with the objectives set by government for the survival of species at risk as described in the Species at Risk Notice. Specifically, the holder of this FSP will:

- (a) maintain an area equal to the area specified for the non contributing landbase;
- (b) distribute the area specified in the notice in a manner consistent with the notice;
- (c) based on proportional distribution of the amount of mature timber harvesting landbase impact specified in the species at risk notice for the district the holder of this FSP will:

- (i) Identify an area (142 hectares) equal to 150% of the proportional distribution for the plan area covered by this FSP; and
- (ii) Defer harvesting in that area until such time as wildlife habitat areas are established in the plan area to address the species or a Ministerial order is issued establishing wildlife habitat areas for the species, exhausting the total mature timber harvesting landbase impact amount for the Campbell River Forest District; and
- (d) In habitat that is determined to be suitable Marbled Murrelet habitat, refer to the Marbled Murrelet *Accounts and Measures for Managing Identified Wildlife* (Identified Wildlife Management Strategy Version 2004) and/or other pertinent information for guidance during the development of a management plan to conserve this habitat as necessary to meet the objective of the species at risk notice.

Adjustments to the Amount of Area Affected

1.2 The amount of area in paragraph 1.1 will be reduced if and to the extent that:

- (a) After the **Date of Submission**, the Total Mature Timber Harvesting Land Base Impact or the Total Habitat Required is reduced in or as a result of an amendment to, replacement of or cancellation of the Species at Risk Notice;
- (b) After the **Date of Submission**, a wildlife habitat area, ungulate winter range, general wildlife measure or a wildlife habitat feature is established or expanded within the mature timber harvesting landbase and addresses in whole or in part the amount, distribution or attributes of habitat specified in the **Species at Risk Notice**;

1.3 Whereas a ministerial Order is issued pursuant to FPPR S7(3) indicating that the **Species at Risk Notice** no longer has effect, exempting the holder of this FSP from preparing and following a result and strategy the holder of this FSP will follow the **General Wildlife Measures** specified in the Order.

8.4.2.3 Red-legged Frog (*Rana aurora*)

Objective:

A person required to prepare a forest stewardship plan must specify a result or strategy in respect of the objective stated under subsection (1) only if the Minister of Water, Land and Air Protection, or a designated official, notifies the person of the applicable

- (a) Species referred to in subsection (1), and
- (b) Indicators of the amount, distribution and attributes of wildlife habitat described in subsection (1).”

Reference: FPPR Section 7(2)

Applicable Area: All proposed FDUs, CRFD

Result or Strategy: An order has been issued establishing wildlife habitat areas for this species, pursuant to FPPR section 7(3) a result and strategy is not required.

8.4.2.4 Keen's Long-eared Myotis (*Myotis keenii*)

Objective:

A person required to prepare a forest stewardship plan must specify a result or strategy in respect of the objective stated under subsection (1) only if the Minister of Water, Land and Air Protection, or a designated official, notifies the person of the applicable

- (a) Species referred to in subsection (1), and
- (b) Indicators of the amount, distribution and attributes of wildlife habitat described in subsection (1)."

Reference: FPPR Section 7(2)

Applicable Area: All proposed FDUs, CRFD

Result or Strategy:

Approach to Harvesting and Roads

- 1.1 Prior to a ministerial Order being issued exempting the holder of this FSP from preparing a result and strategy pursuant to FPPR S7(3), subject to Paragraphs 1.2, within an area in the FDU(s) that is subject to the Species at Risk Notice. The holder will comply with the objectives set by government for the survival of species at risk as described in the Species at Risk Notice. Specifically, the holder of this FSP will:
- (a) Distribute the area specified in the notice in a manner consistent with the notice; and
 - (b) Identify the area specified in the notice, to the extent that suitable habitat is available, using the Accounts and Measures for Managing Identified Wildlife (Identified Wildlife Management Strategy Version 2004) habitat requirements as a delineation guide; and
 - (c) Defer harvesting in that area until such time as wildlife habitat areas are established in the plan area to address the species or a Ministerial order is issued establishing wildlife habitat areas for the species, exhausting the total mature timber harvesting landbase impact amount for the Campbell River Forest District; and
 - (d) In habitat that is determined to be suitable Keen's Long-eared Myotis habitat, refer to the Keen's Long-eared Myotis *Accounts and Measures for Managing Identified Wildlife* (Identified Wildlife Management Strategy Version 2004) and/or other pertinent information for guidance during the development of a management plan to conserve this habitat as necessary to meet the objective of the species at risk notice.

Adjustments to the Amount of Area Affected

- 1.2 The amount of area in paragraph 1.1 will be reduced if and to the extent that:
- (a) After the **Date of Submission**, the Total Mature Timber Harvesting Land Base Impact or the Total Habitat Required is reduced in or as a result of an amendment to, replacement of or cancellation of the Species at Risk Notice;
 - (b) After the **Date of Submission**, a wildlife habitat area, ungulate winter range, general wildlife measure or a wildlife habitat feature is established or expanded within the mature timber harvesting landbase and addresses in whole or in part the amount, distribution or attributes of habitat specified in the **Species at Risk Notice**;
- 1.3 Whereas a ministerial Order is issued pursuant to FPPR S7(3) indicating that the **Species at Risk Notice** no longer has effect, exempting the holder of this FSP from preparing and following a result and strategy the holder of this FSP will follow the **General Wildlife Measures** specified in the Order.

8.4.2.5 Great Blue Heron (*Ardea herodias fanini*)

Objective:

A person required to prepare a forest stewardship plan must specify a result or strategy in respect of the objective stated under subsection (1) only if the Minister of Water, Land and Air Protection, or a designated official, notifies the person of the applicable

- (a) Species referred to in subsection (1), and
- (b) Indicators of the amount, distribution and attributes of wildlife habitat described in subsection (1).”

Reference: FPPR Section 7(2)

Applicable Area: All proposed FDUs, CRFD

Result or Strategy:

Approach to Harvesting and Roads

- 1.1 Prior to a ministerial Order being issued exempting the holder of this FSP from preparing a result and strategy pursuant to FPPR S7(3), subject to Paragraphs 1.2, within an area in the FDU(s) that is subject to the Species at Risk Notice. The holder will comply with the objectives set by government for the survival of species at risk as described in the Species at Risk Notice. Specifically, the holder of this FSP will:
- (a) Distribute the area specified in the notice in a manner consistent with the notice; and
 - (b) Identify the area specified in the notice, to the extent that suitable habitat is available, using the Accounts and Measures for Managing Identified Wildlife (Identified Wildlife Management Strategy Version 2004) habitat requirements as a delineation guide; and

- (c) Defer harvesting in that area until such time as wildlife habitat areas are established in the plan area to address the species or a Ministerial order is issued establishing wildlife habitat areas for the species, exhausting the total mature timber harvesting landbase impact amount for the Campbell River Forest District; and
- (d) In habitat that is determined to be suitable Great Blue Heron habitat, refer to the Great Blue Heron Accounts and Measures for Managing Identified Wildlife (Identified Wildlife Management Strategy Version 2004) and/or other pertinent information for guidance during the development of a management plan to conserve this habitat as necessary to meet the objective of the species at risk notice.

Adjustments to the Amount of Area Affected

- 1.2 The amount of area in paragraph 1.1 will be reduced if and to the extent that:
 - (a) After the **Date of Submission**, the Total Mature Timber Harvesting Land Base Impact or the Total Habitat Required is reduced in or as a result of an amendment to, replacement of or cancellation of the Species at Risk Notice;
 - (b) After the **Date of Submission**, a wildlife habitat area, ungulate winter range, general wildlife measure or a wildlife habitat feature is established or expanded within the mature timber harvesting landbase and addresses in whole or in part the amount, distribution or attributes of habitat specified in the **Species at Risk Notice**;
- 1.3 Whereas a ministerial Order is issued pursuant to FPPR S7(3) indicating that the **Species at Risk Notice** no longer has effect, exempting the holder of this FSP from preparing and following a result and strategy, the holder of this FSP will follow the **General Wildlife Measures** specified in the Order.

8.4.2.6 Coastal Tailed Frog (*Ascaphus truei*)

Objective:

A person required to prepare a forest stewardship plan must specify a result or strategy in respect of the objective stated under subsection (1) only if the Minister of Water, Land and Air Protection, or a designated official, notifies the person of the applicable;

- (a) Species referred to in subsection (1), and
- (b) Indicators of the amount, distribution and attributes of wildlife habitat described in subsection (1)

Reference: FPPR Section 7(2)

Applicable Area: All proposed FDUs, CRFD

Result or Strategy: An order has been issued establishing wildlife habitat areas for this species, pursuant to FPPR section 7(3) a result and strategy is not required.

8.4.3 Species at Risk – North Island-Central Coast Forest District

The sections which follow describe the strategy that will be used to address species at risk in the North Island – Central Coast Forest District (NICCFD) where a section 7 notice pertaining to that species has been prepared by government. Several other species are also listed as “species-at-risk” many of which have recently had their status changed to “at risk”. At this time section seven notices have not been prepared for many of these additional species. Consequently, no results and strategies are necessary at this time.

8.4.3.1 Coastal Tailed Frog (*Ascaphus truei*)

Objective:

A person required to prepare a forest stewardship plan must specify a result or strategy in respect of the objective stated under subsection (1) only if the Minister of Water, Land and Air Protection, or a designated official, notifies the person of the applicable

- (a) Species referred to in subsection (1), and
- (b) Indicators of the amount, distribution and attributes of wildlife habitat described in subsection (1).

Reference: FPPR Section 7(2)

Applicable Area: Proposed FDU G, NICCFD

Result or Strategy:

Approach to Harvesting and Roads

1.1 Prior to a ministerial Order being issued exempting the holder of this FSP from preparing a result and strategy pursuant to FPPR S7(3), subject to Paragraphs 1.2, within an area in the FDU(s) that is subject to the Species at Risk Notice. The holder will comply with the objectives set by government for the survival of species at risk as described in the Species at Risk Notice. Specifically, the holder of this FSP will:

- (a) Distribute the area specified in the notice in a manner consistent with the notice;
- (b) Based on proportional distribution of the amount in the notice intended for 9 WHA's in the district the holder of this FSP will:
 - (i) Identify up to 172 hectares of suitable habitat with a mature timber harvesting landbase impact of no more than 21 hectares using the Accounts and Measures for Managing Identified Wildlife (Identified Wildlife Management Strategy Version 2004) habitat requirements as a delineation guide; and
 - (ii) Defer harvesting in that area until such time as wildlife habitat areas are established in the plan area to address the species or a Ministerial order is issued establishing wildlife habitat areas for the species, exhausting the total mature timber harvesting landbase impact amount for the North Island Central Coast Forest District; and

- (c) In habitat that is determined to be suitable Coastal Tailed Fog habitat, refer to the Coastal Tailed Fog Accounts and Measures for Managing Identified Wildlife (Identified Wildlife Management Strategy Version 2004) and/or other pertinent information for guidance during the development of a management plan to conserve this habitat as necessary to meet the objective of the species at risk notice.

Adjustments to the Amount of Area Affected

- 1.2 The amount of area in paragraph 1.1 will be reduced if and to the extent that:
 - (a) After the **Date of Submission**, the Total Mature Timber Harvesting Land Base Impact or the Total Habitat Required is reduced in or as a result of an amendment to, replacement of or cancellation of the Species at Risk Notice;
 - (b) After the **Date of Submission**, a wildlife habitat area, ungulate winter range, general wildlife measure or a wildlife habitat feature is established or expanded within the mature timber harvesting landbase and addresses in whole or in part the amount, distribution or attributes of habitat specified in the **Species at Risk Notice**;
- 1.3 Whereas a ministerial Order is issued pursuant to FPPR S7(3) indicating that the **Species at Risk Notice** no longer has effect, exempting the holder of this FSP from preparing and following a result and strategy, the holder of this FSP will follow the **General Wildlife Measures** specified in the Order.

8.4.3.2 Great Blue Heron (*Ardea herodias fanini*)

Objective:

A person required to prepare a forest stewardship plan must specify a result or strategy in respect of the objective stated under subsection (1) only if the Minister of Water, Land and Air Protection, or a designated official, notifies the person of the applicable

- (a) Species referred to in subsection (1), and
- (b) Indicators of the amount, distribution and attributes of wildlife habitat described in subsection (1).

Reference: FPPR Section 7(2) & (3)

Applicable Area: All proposed FDUs, NICCFD

Result or Strategy:

A result and strategy is not required for this species. The amount of area specified in the Species at Risk Notice is based on the anticipated need for 3 future wildlife habitat areas in the Mid Coast TSA and TFL 39.

8.4.3.3 Marbled Murrelet (*Brachyramphus marmoratus*)

Objective:

A person required to prepare a forest stewardship plan must specify a result or strategy in respect of the objective stated under subsection (1) only if the Minister of Water, Land and Air Protection, or a designated official, notifies the person of the applicable

- (a) Species referred to in subsection (1), and
- (b) Indicators of the amount, distribution and attributes of wildlife habitat described in subsection (1).

Reference: FPPR Section 7(2)

Applicable Area: All proposed FDUs, NICCFD

Result or Strategy:

Approach to Harvesting and Roads

1.1 Prior to a ministerial Order being issued exempting the holder of this FSP from preparing a result and strategy pursuant to FPPR S7(3), subject to Paragraphs 1.2, within an area in the FDU(s) that is subject to the Species at Risk Notice. The holder will comply with the objectives set by government for the survival of species at risk as described in the Species at Risk Notice. Specifically, the holder of this FSP will:

- (a) Maintain an area equal to the area specified for the non contributing landbase;
- (b) Distribute the area specified in the notice in a manner consistent with the notice;
- (c) Based on proportional distribution of the amount of mature timber harvesting landbase impact specified in the species at risk notice for the district the holder of this FSP will:
 - (i) Identify an area (1.0 hectares) equal to 200% of the proportional distribution for the plan area covered by this FSP; and
 - (ii) Defer harvesting in that area until such time as wildlife habitat areas are established in the plan area to address the species or a Ministerial order is issued establishing wildlife habitat areas for the species, exhausting the total mature timber harvesting landbase impact amount for the North Island Central Coast Forest District; and
- (d) In habitat that is determined to be suitable Marbled Murrelet habitat, refer to the Marbled Murrelet *Accounts and Measures for Managing Identified Wildlife* (Identified Wildlife Management Strategy Version 2004) and/or other pertinent information for guidance during the development of a management plan to conserve this habitat as necessary to meet the objective of the species at risk notice.

Adjustments to the Amount of Area Affected

1.2 The amount of area in paragraph 1.1 will be reduced if and to the extent that:

- (a) After the **Date of Submission**, the Total Mature Timber Harvesting Land Base Impact or the Total Habitat Required is reduced in or as a result of an amendment to, replacement of or cancellation of the Species at Risk Notice;
 - (b) After the **Date of Submission**, a wildlife habitat area, ungulate winter range, general wildlife measure or a wildlife habitat feature is established or expanded within the mature timber harvesting landbase and addresses in whole or in part the amount, distribution or attributes of habitat specified in the **Species at Risk Notice**;
- 1.3 Whereas a ministerial Order is issued pursuant to FPPR S7(3) indicating that the **Species at Risk Notice** no longer has effect, exempting the holder of this FSP from preparing and following a result and strategy the holder of this FSP will follow the **General Wildlife Measures** specified in the Order.

8.4.3.4 “Queen Charlotte” Goshawk (*Accipiter gentiles laingi*)

Objective:

A person required to prepare a forest stewardship plan must specify a result or strategy in respect of the objective stated under subsection (1) only if the Minister of Water, Land and Air Protection, or a designated official, notifies the person of the applicable

- (a) Species referred to in subsection (1), and
- (b) Indicators of the amount, distribution and attributes of wildlife habitat described in subsection (1).

Reference: FPPR Section 7(2) & (3)

Applicable Area: All proposed FDUs, NICCFD

Result or Strategy:

An Order has been issued establishing wildlife habitat areas for this species, pursuant to FPPR section 7(3) a result and strategy is not required. Remaining area in the notice is for the establishment of WHA is the Mid Coast TSA/TFL 39.

8.4.3.5 Grizzly Bear (*Ursus arctos*)

Objective:

A person required to prepare a forest stewardship plan must specify a result or strategy in respect of the objective stated under subsection (1) only if the Minister of Water, Land and Air Protection, or a designated official, notifies the person of the applicable;

- (a) Species referred to in subsection (1), and
- (b) Indicators of the amount, distribution and attributes of wildlife habitat described in subsection (1).

Reference: FPPR Section 7(2)

Applicable Area: All proposed FDUs, NICCFD

Result or Strategy:

The amount specified in the **Species at Risk Notice** is for the Mid Coast TSA and TFL 39, which is not covered by this FSP. Therefore no results and strategies have been developed for this species.

8.5 WATER, FISH, WILDLIFE & BIODIVERSITY WITHIN RIPARIAN AREAS

Objective:

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.

Reference: FPPR Section 8, 12(3)

Applicable Area: All proposed FDUs

Result or Strategy:

Definitions

1.1 In Paragraphs 1.2 :

- (a) **“Non status roads”** means existing road headings not currently under road permit including deactivated roads and, all pre *Forest Practices Code Act* roads. **Non status roads** do not include old railway grades, skid trails, or old road locations which have become overgrown with merchantable crop trees and vegetation to the extent that the area is now functioning as part of the riparian ecosystem as it was prior to the old road in question being built.

Approach to Harvesting and Roads

1.2 The holder of this FSP adopts the following strategy:

- (a) Subject to 1.3 the holder of this FSP will comply with practice requirements as specified in Sections 47 to 49 FPPR (B.C. Reg. 14/2004), subject to the restrictions detailed in sections 50 to 52 FPPR (B.C. Reg. 14/2004) and the temperature sensitive stream requirements identified in section 53 FPPR (B.C. Reg. 14/2004);
- (b) to comply with the objective of Section 12(3) of the *Forest Planning and Practices Regulation* (B.C. Reg. 14/2004) by implementing tree retention strategies in a Riparian Management Zone for streams, wetlands and lakes as determined through an **evaluation** performed by a Qualified Registered Professional;
- (c) to give consideration to the following factors as per Schedule 1 of the FPPR:

- a. the type of management regime that is required for a riparian area, having regard to
 - i. the need to buffer the aquatic ecosystem of a stream, wetland or lake from the introduction of materials that are deleterious to water quality or fish habitat
 - ii. the role played by trees and understory vegetation in conserving water quality, fish habitat, wildlife habitat and biodiversity,
 - iii. the need to maintain stream bank and stream channel integrity, and
 - iv. the relative importance and sensitivity of different riparian classes of streams, wetlands and lakes in conserving water quality, fish habitat, wildlife habitat and biodiversity;
 - b. the type, timing and intensity of forest practices that can be carried out within the context of a management regime referred to in paragraph a.;
 - c. the role of forest shading in controlling an increase in temperature within a temperature sensitive stream, if the increase might have a deleterious effect on fish habitat
- (d) on disturbed contiguous areas of erodible material greater than 0.01 ha and not subject to reforestation activities on approaches to fish stream crossings, grass seed as soon as possible or within one year of disturbance. The areas to be seeded are ditch-lines in the approach to the structure where, due to topographical constraints, flow is directed directly into the fish stream.
- 1.3 Where a **non status road** infringes upon the riparian management area of a wetland lake or stream reactivation of the **non status road** will be assessed as part of the **evaluation** to determine suitability for industrial use subject to the following conditions:
- (a) an **Evaluation** has determined that the use of the **non status road** will not result in an increased sediment delivery to the wetland, lake or stream than that of a new road; and
 - (b) the **non status road** does not infringe upon the riparian management area of the wetland, lake or stream to the extent that the remaining riparian management area is less than 10 meters wide for fish bearing wetlands, lakes and streams and 5 meters for non fish wetlands, lakes and streams; and
 - (c) riparian reserve zone remaining on the road side of such activities will not be considered available for harvesting as a consequence of **non status road** reactivation; and
 - (d) **non status road** reactivation will not infringe upon more than 6% of the riparian management area of an affected stream; and
 - (e) the riparian reserve zone area, where affected, will be remediated by increasing the area of the riparian reserve zone elsewhere on the affected stream.

where these conditions are satisfied the **non status road** may be reactivated.

8.6 FISH HABITAT IN FISHERIES SENSITIVE WATERSHEDS

Objective:

- 1) In this section "fisheries sensitive watershed" means an area identified in Schedule 2 of this regulation
 - (a) With significant downstream fisheries values continued under section 180 (f) of the Act and significant watershed sensitivity continued under section 180 (g) of the Act, 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 impact 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;

Reference: FPPR Section 8.1

Applicable Area: NA

Result or Strategy:

No fisheries sensitive watersheds have been designated within the area applicable to this FSP. Therefore Section 8.1 of the *Forest Planning and Practices Regulation* (B.C. Reg. 14/2004) is not applicable.

8.7 COMMUNITY WATERSHEDS

Objective:

- (1) In this section, "community watershed" means a community watershed
 - (a) That is continued under section 180 (e) of the Act, and
 - (b) For which a water quality objective has not been

- (i) Continued under section 181 of the Act, 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 impact 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.

Reference: FPPR Section 8.2, 59-62 & 12.32

Applicable Area: NA

Result or Strategy:

No community watersheds exist within the area covered by the proposed FDUs in this plan. Therefore, no results or strategies are necessary.

8.8 WILDLIFE & BIODIVERSITY – LANDSCAPE LEVEL

Objective:

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 within the landscape.

Reference: FPPR Section 9, 64 & 65

Applicable Area: All proposed FDUs

Result or Strategy:

Approach to Harvesting and Roads

- 1.1 The holder of this FSP will comply with the practice requirements outlined in Sections 64 and 65 of the *Forest Planning and Practices Regulation* (B.C. Reg. 14/2004).

8.9 WILDLIFE & BIODIVERSITY – STAND LEVEL

Objective:

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.

Reference: FPPR Section 9.1, 66 & 67

Applicable Area: All proposed FDUs

Result or Strategy:

Approach to Harvesting and Roads

- 1.1 For the purpose of conducting primary forest activities the Holder of this FSP will undertake to comply with the practice requirements outlined in Section 66 of the *Forest Planning and Practices Regulation* (B.C. Reg. 14/2004).
- 1.2 Unless as specified in 1.3 wildlife tree retention areas may not be harvested before the trees on the net area to be reforested of the cutblock to which the wildlife tree retention area relates have developed attributes that are consistent with a mature seral condition
- 1.3 Wildlife tree retention areas that are not specifically required to protect or conserve a non timber resource or feature may be harvested provided, prior to harvesting, a **qualified registered professional** performs an **evaluation** that determines the wildlife tree retention areas are replaced with an equivalent area that is:
 - 1.3.1 ecologically and structurally similar or better to the wildlife tree retention area to be harvested, and
 - 1.3.2 is geographically as close as practicable to the cutblock

8.10 VISUAL QUALITY

Visual Quality Objectives were identified in an order pursuant to GAR section 7 on December 14, 2005 in the *Order to Establish Scenic Areas and Visual Quality Objectives for the Campbell River Forest District*. Similarly on August 31, 2005 a Visual Quality Objective Order was signed, pursuant to GAR Section 7(2), for the Kingcome Timber Supply Area. Visual quality objectives for TFL 47 are addressed by the scenic areas established for the TFL under the *Forest Practices Code Act of British Columbia* and continued under section 180 of FPPR.

Objective:

The objective that applies to the holder of this FSP is to ensure that the forested landscape with visual quality objectives established under GAR and Scenic Areas continued under the FRPA which is altered as a result of primary forest activities falls within the specified levels of alteration in the regulation.

Reference: GAR Section 17 & FPPR Section 1.1, 9.2 & 180

Applicable Area: All proposed FDUs

Result or Strategy:

Approach to Harvesting and Roads

Definitions

1.1 In paragraphs 1.1 through 1.4

(a) A “**Significant Public Viewpoint**”, as that term is used in the definition of “altered forest landscape” as described in FPPR S.1 as it was at the time of submission of this FSP means a viewpoint on water or land:

- (i) Where a large number of people traditionally congregate which may be a viewpoint in a park, highway pullout, or city center; or
- (ii) Included in the most current Visual Landscape Inventory; or
- (iii) Determined to be important by a qualified registered professional;

(b) **Order** refers to the *Order to Establish Scenic Areas and Visual Quality Objectives for the Campbell River Forest District* of December 14, 2005 as it pertains to that district; and

(c) “**dominant**” means where a group of polygons have the same VQO; and

(d) “**blended scene management**” refers to the concept described in the December 14, 2005 *Order to Establish Scenic Areas and Visual Quality Objectives for the Campbell River Forest District – Rational statement* of combining adjacent VQO polygons were scenarios might include a combination of foreground, midground and background units; and

(e) “**visible landscape**” may include more than one landform where the landforms are in close proximity to one another making them easily and naturally viewed together.

1.2 If the holder of this FSP conducts primary forest activity within an area in the FDU(s) that is in a Scenic Area with established Visual Quality Objectives, the holder will apply the visual quality objectives as identified in the Order. **Blended scene management** will be applied and analyzed on a case by case basis to the **dominant** VQO from **Significant Public Viewpoints**.

- 1.3 Activities will be consistent with FPPR S.1.1 as it was on the date of submission to ensure that a forest landscape within a scenic area, that is altered as a result of timber harvesting or road construction, falls within the specified levels of alteration.
- 1.4 The holder of this FSP will construct road or harvest a cutblock as described in sections 1.2 and 1.3 subject to the following exemptions:
 - (a) To the extent practicable the holder of this FSP will endeavor to meet the Visual Quality Objectives. However, in the circumstances described below the holder of this FSP may construct a road or harvest a cutblock that produces a landscape alteration different than the VQOs specified in the Order, where the proposed road or harvesting is:
 - (i) Required for safety, fire suppression, salvage, to manage pest or disease outbreaks or a similar circumstance as determined through an **Evaluation** performed by a **Qualified Registered Professional**; and
 - (ii) Is authorized or required by government.

8.11 CULTURAL HERITAGE RESOURCES

Objective:

The objective set by government for cultural heritage resources¹ 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

Reference: FPPR Section 10

Applicable Area: All proposed FDUs

Result or Strategy:

- 1.1 The strategies to address this objective are captured within the strategies for the First Nations' Objectives of the South Central Coast Order, described in section 6.1.1 of this FSP.

8.12 MEASURES

8.12.1 Measures for Preventing the Introduction or Spread of Invasive Plants

¹ "cultural heritage resource" refers only to those resources that are the focus of a traditional use by an aboriginal people that is of continuing importance to that people, and not regulated under the Heritage Conservation Act.

For the purpose of section 47 [Invasive plants] of the Act, 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 a result of the person's forest practices.

Reference: FPPR Section 17

Applicable Area: All proposed FDUs

Measures:

Definitions

- 1.1 In Paragraphs 1.2 and 1.3 “**Invasive Plant Species**” means those plants defined in the *Invasive Plants Regulation* ;

Approach to Harvesting and Roads

- 1.2 Within an area in the FDU(s), if the holder of this FSP harvests timber or constructs roads, prior to said activities, the holder will;
- (a) Biennially educate planning staff and planning contractors on the identification of moderate and high risk invasive plants; and
 - (b) instruct planning staff and planning contractors to report annually to the holder of this FSP new incidences of invasive plants encountered during the execution of primary forest activities; and
 - (c) for invasive species other than scotch broom, where treatment has not occurred within 12 months of discovery, and at that time, the holder of this FSP will report the discovery to the government Invasive Alien Plant Program, and
 - (d) direct harvesting and road construction contractors, prior to leaving known areas of high incidence of invasive plants and moving to areas of low incidence of invasive plants, to inspect and remove vegetation from machinery, and
 - (e) On a case by case basis utilize a **Qualified Registered Professional** to develop site specific mitigation measures to be implemented by the FSP holder.
- 1.3 Where moderate or high risk **Invasive Plant Species** are considered likely to germinate on soil exposed as a result of the holders primary forest activities and there is the expectation that revegetation with grass seed will substantially reduce the probability of invasive plant germination, the holder of this FSP will:
- (a) In areas not planted with tree seedlings, within 1 year of completing primary forest activities, seed soils where contiguous areas greater than 0.1 hectare is exposed.
 - (b) Give preference to native seed mixtures provided that:
 - (i) The seed is readily available;
 - (ii) The seed is available at a comparable cost to that of agronomic mixtures; and

(iii) The seed has comparable effectiveness to agronomic mixtures.

8.12.2 Measures to Mitigate the Loss of Natural Range Barriers

Objective:

The FSP holder must specify measures to mitigate the effect of removing or rendering ineffective natural range barriers.

Reference: FPPR Section 18, FRPA Section 48

Applicable Area: NA

Measures:

There are no range Tenure holders within any FDU's therefore no measures have been developed.

9 STOCKING STANDARDS

The holder of a Forest Stewardship Plan is required, on cutblocks harvested under an FSP, to establish free growing stand in accordance with the FSP. The FSP must specify a regeneration date and stocking standards and free growing height that will apply to the obligation – See Appendix 1 for site specific details. All stocking requirements are applicable across the entire FDU(s).

Site specific circumstances will determine how the stocking standards are applied in conjunction with the site planning requirements of FRPA. The tables in appendix 1 have been set up to allow for site specific professional discretion to be applied while also providing limitations on the adequacy of species.

No application of the single tree selection silviculture system or shelterwood silviculture systems are proposed under this plan. Therefore, no stocking standards to address multi layered stands are proposed.

The potential effects of climate change have been considered in the development of this FSP and in particular, the development of the stocking standards. Increasing the diversity of species will lead to more resilient plantations. More but still limited reliance on Western white pine will provide for increased diversity of species.

FRPA Section 197 Election for Stocking Standards

Stocking standards approved under this FSP may be applied to cutblocks harvested prior to the effective date of this FSP (i.e. blocks harvested under the FPCBCA). The process for applying approved FSP stocking standards to pre FSP cutblocks will be to make the election using the RESULTS reporting system. FSP standards transferred to pre FSP cutblocks are required to be consistent with the ecological classification of the pre FSP cutblock.

Intermediate Cutting (IC)

Intermediate cutting is proposed under this plan for both old growth and second growth stands, with each having their own stocking standard. These prescriptions would provide for an opportunity for future harvesting. Where IC has occurred, stocking standards will be maintained for 12 months following the completion of harvesting. Standards for acceptable leave trees will be as defined in the most recent version of the Single Entry Dispersed Retention System discussion paper, Appendix 1 and 2.

Intermediate Cutting - Old Growth

For old growth, intermediate cutting is proposed in stands that are constrained by other resource values, typically terrain stability and visuals. Where possible, IC will be in combination with small patch cuts or larger openings. Helicopter harvesting, either faller select or snap and crack, will typically be used. The application of IC will be limited to no more than 3 % of the AAC for all licences measured over a 5 year period. The IC will involve the removal of up to 20% of the merchantable stand volume and no more than 35% of the merchantable volume of any one species. Basal area retained will be > 40 m²/ha. Openings < 0.2 hectares will not be planted.

Intermediate Cutting – Second Growth

For second growth, the intermediate cutting will be in the form of a cross sectional thinning of all species and diameter classes were up to 25% of the merchantable stems will be removed. The harvest system will typically be ground based. IC in second growth would potentially be more broadly applied than in old growth; it is not necessarily limited to constrained areas but will be limited to 2% of the AAC of all licences measured over a 5 year period.

Situations or Circumstances that determine when FPPR S. 44(4) and the Standards Applicable under FPPR S. 16(4) Applies

For the purpose of Section 44(4), where harvesting of special forest products, intermediate cuts or commercial thinning occurs as defined in FPPR S. 44(3)(h) and S 44 (3)(i), the Stocking Standards as submitted to the Ministry of Forests and Range will be maintained for twelve months following the completion of intermediate harvesting on the area that was harvested.

9.1 MINIMUM HORIZONTAL INTERTREE DISTANCE

Minimum distance will be 2.0 meters except as noted below:

- 1.0 meters immediately adjacent to roadsides, streams, NP areas, unplantable slash and in areas of difficult plantability, e.g. talus, salal. For reasons of unplantable slash, minimum distance will only be reduced to 1.0 meters for up to 5% of the net area to be reforested.
- 1.0 meters in site series 07, 08, 09, 11, 12, 13 and 14; i.e. all high water table sites and high brush hazard sites where stocking is preferred on raised microsites
- 1.5 meters on site series 05 and 06 where raised microsites are preferred

9.2 HEIGHT OF CROP TREES ABOVE COMPETING VEGETATION

% of height of crop trees compared to competing vegetation:

Alder, maple	100 - 150% (refer to 9.3.2)
Bracken	125%
Willow	100%
Brush	100%

Brush includes salmonberry, elderberry, thimbleberry, huckleberry (*Vaccinum* spp.), fireweed, and salal.

For cherry, it is recognized that crop trees will often grow, almost unaffected, through overtopping dense cherry competition. Rather than use height of crop trees relative to height of cherry, the criteria will be the vigor of the leaders of the crop trees – leaders of crop trees influenced by cherry must be greater than 80% of the length of leaders of crop trees not influenced by cherry.

9.3 ALDER

9.3.1 Suitability Of Alder On All Harvested Areas

1. Where typical conifer stocking standards apply, up to 50 stems/ha of well distributed alder will be retained in order to promote long term stand biodiversity and productivity. Alder will not contribute towards the achievement of stocking standards, but rather will be considered as a ghost tree. For all alder scenarios, acceptable future crop trees will be as defined in Establishment to Free Growing Guidebook and in the Broadleaf forest health free-growing damage criteria
<http://www.for.gov.bc.ca/hfp/silviculture/Broadleaf%20damage%20criteria%20Dec%2009.pdf>
2. No more than 10%, or 20 hectares, whichever is less, of the area harvested in a calendar year may be stocked with alder as a preferred species. Alternatively, the amount of area that can be stocked with alder as a preferred species may be determined through a District allocation process to meet landscape alder objectives.

9.3.2 Mixedwood Scenario

Alder has proven to be a significant commercial crop tree for much of the recent harvesting in the plan area. Alder is anticipated to naturally seed into many cutblocks within 2 to 5 years following harvest. In these situations, alder may be considered a preferred crop tree in certain areas given the following criteria:

1. Average density of alder is \Rightarrow 1,000 stems per hectare over \Rightarrow 80% of the area. The remaining 0 to 20% may have a lower average density of alder and/or be stocked with suitable conifers that are expected to be vigorous at 20 years after the commencement of harvesting; the conifers may be considered as preferred crop trees as single trees or in small patches. Where alder and conifer are considered as

preferred species in the same plot, the conifer must meet the following % height to alder ratio:

Height of Conifer (meters)	% the height of alder
<5	150
5-7	125
7+	100

2. Areas are a minimum of 0.5 hectares in size with areas less than 2 hectares having direct access to established roads.
3. Limited to site series 01 (where transitional to 05), 05, 06, 07, 08 and 09 of the CWHdm, CWHxm, CWHmm1 and CWHvm1 variants and site series 13 and 14 of the CWHdm and CWHxm variants; and to elevations at or below 400 meters asl.
4. Harvesting of the area is achievable using ground based methods.

The reforestation strategy for all harvested areas that may be suitable for alder will be to plant with coniferous species, determine the density of alder ingress within 3 to 5 years of harvest and determine if the area is a candidate for alder as a preferred species (mixedwood management).

9.3.3 Extensive Scenario

Similar ecological and geographic criteria as noted in the mixedwood scenario. However, this scenario incorporates planting of alder rather than reliance on natural regeneration.

Alder may be used as a preferred species in situations of moderate to severe root rot where it is determined that a rotation of alder would be of long term benefit.

9.4 FOREST HEALTH

Within the plan area there are several forest health factors that are relevant to stocking standards.

Balsam Woolly Aphid

The Balsam Woolly Aphid (BWA) has caused mortality of older balsam (*Abies* species) second growth for the past two decades. The range of the mortality in the plan area has been generally confined to East and West Thurlow Islands, Hardwicke Island and the portion of the mainland near Wellbore Channel. The areas of most significant attack are in the vicinity of Wellbore Channel. Balsam on the Thurlows tends to be lightly distributed throughout the forest. Other portions of the plan area which contain areas of relatively high density of balsam include Heydon Lake, Forward Harbour, Wortley Creek, and July Point. These areas at this time are free of a widespread balsam infestation. It is expected that slowly over time the area of significant mortality due to the aphid will increase. Spread of the aphid is easily monitored by annual summer helicopter reconnaissance. Following harvest, the planting of any area expected to have a moderate to high risk of aphid attack will be limited to less than 35% *Abies*.

Hemlock Dwarf Mistletoe

Mistletoe is occasionally present in hemlock stands throughout the plan area, but is not normally significant enough to be a planning concern.

Hemlock, throughout the plan area will be limited in its contribution to the achievement of stocking standards wherever dwarf mistletoe is present in the standing trees within or on the edge of the harvested area.

Moderate to severe infestation

- Hemlock will not be preferred or acceptable within 10 meters of infected standing trees within or on the edge of the harvested area.
- Hemlock will only be acceptable between 10 and 25 meters of infected standing trees within or on the edge of the harvested area.

Low infestation

- Hemlock will only be acceptable within 10 meters of infected standing tree trees within or on the edge of the harvested area.

White Pine Blister Rust

Unless rust resistant stock is planted, white pine cannot contribute to minimum stocking standard (MSS) and is limited to 10% of total stocking standard (TSS). Planting of rust resistant stock will allow planted white pine to be considered an acceptable species and to contribute up to 25% of the minimum stocking standard of preferred species (MSP) for non Phellinus root rot sites and up to 100% of the MSP for Phellinus root rot sites.

Where non resistant white pine is required to meet the MSS pruning will be done in one or two stages within the free growing window to remove lower branches to a height of 3 meters. In the past 15 years, a total of 6 hectares has required pruning.

Spruce Leader Weevil

Unless weevil resistant stock is planted, Sitka spruce cannot contribute to MSS and is limited to 10% of TSS. Planting of weevil resistant spruce will allow planted spruce to be fully considered for MSS and for up to 25% of MSP.

Root Diseases

Root disease within the planning area is not normally a concern. Both Phellinus and Armellaria occur, but are generally restricted to small isolated pockets of 1 hectare or less.

Stands will be assessed for the presence of root rot during the preparation of site plans. Where incidence of root rot is low and infection centers are small, no remedial treatments will occur. In moderately to highly infected stands larger than 0.1 hectare the following strategies will be employed, either individually or in combination, to reduce the impact of root rot on the next crop: The objective of these strategies will be to limit future losses to 20% of potential mean annual increment.

Phellinus

- Post harvest stumping on slopes less than 35% on sites where Douglas-fir is the preferred species.
- Planting alder and/or cedar and/or white pine on sites suitable to these species. Alder will be considered for sites where it has the potential to reach sawlog dimensions.

Armellaria

- Post harvest stumping on slopes less than 35% on the most severely infected sites
- Focusing silviculture efforts to maintain vigorous tree growth, e.g. planting larger stock, time of planting fertilization, timely and repeated brushing as required to maintain vigour.

Appendix 1: Stocking Standards

Biogeoclimatic Classification		Std ID	Species		Well Spaced Stocking			Regen Delay (Max yrs)	Minimum Height	
					Target	MSS	MSP		Species	Ht (m)
Zone/SZ	Series		Preferred (p)	Acceptable (a)	(well-spaced/ha)					
CWHdm	01	1006579	Fd Cw Hw	Pw ¹⁶	900	500	400	3	Fd, Hw	3.00
									Pw	2.50
									Cw	1.50
	02*	1006580	PI Fd		400	200	200	3	Fd	2.00
									PI	1.25
	03	1006581	Fd Hw ²²	Cw Pw ¹⁶	800	400	400	3	Fd, Hw, Pw	2.00
									Cw	1.00
	04	1006582	Fd	Cw Hw ² Pw ¹⁶	900	500	400	3	Fd, Hw	3.00
									Pw	2.50
									Cw	1.50
	05	1006583	Cw Fd	Pw ¹⁶ Bg ¹⁸ Hw ^{2,20}	900	500	400	3	Fd, Hw	4.00
									Bg,	3.50
									Pw	2.50
									Cw	2.00
	06	1006586	Cw Hw	Fd ¹	900	500	400	6	Fd, Hw	3.00
									Cw	1.50
	07	1006589	Cw Fd	Bg ¹⁸ Hw ²	900	500	400	3	Fd, Hw	4.00
									Bg	3.50
									Cw	2.00
	08	1006588	Bg ¹⁸ Cw		900	500	400	3	Bg	3.50
									Cw	2.00
	09	1006590	Cw ¹	Bg ^{1,18}	900	500	400	3	Bg	3.50
									Cw	2.00
	11*	1006591	PI ¹ Cw ¹		400	200	200	3	PI	1.25
									Cw	1.00

Biogeoclimatic Classification		Std ID	Species		Well Spaced Stocking			Regen Delay (Max yrs)	Minimum Height	
			Preferred (p)	Acceptable (a)	Target	MSS	MSP		Species	Ht (m)
Zone/SZ	Series				(well-spaced/ha)					
	12	1006592	Cw ¹ Hw ^{1,2}	Pw ¹⁶ Ss ¹⁷	800	400	400	3	Ss	3.00
									Pw	2.50
									Hw	2.00
									Cw	1.00
	13	1006593	Bg ¹⁸ Cw Fd ¹		900	500	400	3	Fd	4.00
									Bg	3.50
									Cw	2.00
	14	1006594	Bg ^{1,18} Cw ¹		900	500	400	3	Bg	3.50
									Cw	2.00
	15	1006595	Cw ¹		800	400	400	3	Cw	1.00
	All IC OG**	1036939	Fd Cw Hw			>40 m2 basal area				
	All IC 2G**	1036938	Fd Cw Hw		400	300	300			
	01,05,06,07, 08,09,13,14 Patch mixedwood	1036937	Dr Fd ²¹ Hw ²¹ Cw ²¹		1200	700	700	3	Dr,Fd,Cw	4.00
	01,05,06,07 08,09,13,14 Extensive	1036940	Dr		1200	700	700	3	Dr	4.00
CWHmm1	01	1006596	Fd Cw Hw	Pw ¹⁶	900	500	400	6	Fd	3.00
									Hw, Pw	2.00
									Cw	1.50
	02	1006597	PI Fd	Cw	800	400	400	6	Fd	2.00
									PI	1.25
									Cw	1.00
	03	1006598	Fd Cw	Hw Pw ¹⁶	800	400	400	3	Fd	2.00
									Hw, Pw	1.75
									Cw	1.00
	04	1006599	Fd	Cw Hw Pw ¹⁶	900	500	400	3	Fd	2.00
									Hw	1.75
									Cw	1.00
	05	1006600	Fd Cw	Hw Pw ¹⁶	900	500	400	3	Fd	3.00
									Pw	2.50
									Hw	2.00
									Cw	1.50
	06	1006601	Cw Hw	Fd ^{1,4} Ba ^{4,7,18}	900	500	400	6	Fd	3.00
									Hw	2.00
									Cw	1.50
									Ba	0.75
	07	1006602	Cw Fd	Ba ¹⁸ Hw ²	900	500	400	3	Fd	4.00

Biogeoclimatic Classification		Std ID	Species		Well Spaced Stocking			Regen Delay (Max yrs)	Minimum Height	
Zone/SZ	Series		Preferred (p)	Acceptable (a)	Target	MSS	MSP		Species	Ht (m)
					(well-spaced/ha)					
								Hw	2.50	
								Cw	2.00	
								Ba	1.00	
	08	1006603	Ba ¹⁸ Cw Ss ¹⁷		900	500	400	3	Ss	4.00
								Cw	2.00	
								Ba	1.00	
	09	1006604	Cw ¹	Ba ^{1,18}	900	500	400	3	Cw	2.00
								Ba	1.00	
	11*	1006605	PI ¹	Cw ¹	400	200	200	3	PI	1.25
								Cw	1.00	
	12	1006606	Cw ¹ Hw ^{1,2}	Ss ^{1,17}	800	400	400	3	Ss, Hw	2.00
								Cw	1.00	
	All IC OG**	1036941	Fd Cw Hw			>40 m2 basal area				
	All IC 2G**	1036945	Fd Cw Hw		400	300	300			
	01,05,06,07, 08,09 Patch mixedwood	1036948	Dr Fd ²¹ Hw ²¹ Cw ²¹		1200	700	700	3	Dr,Fd,Cw	4.00
	01,05,06,07 08,09 Extensive	1036951	Dr		1200	700	700	3	Dr	4.00
CWHmm2	01	1006607	Hm ⁸ Hw Cw Fd ⁶ Yc	Ba ¹⁸	900	500	400	6	Fd	2.25
								Hw	1.25	
								Cw, Hm, Yc	1.00	
								Ba	0.75	
	02	1006608	PI Fd	Cw	800	400	400	6	Fd	2.50
								PI	1.50	
								Cw	0.75	
	03	1006609	Fd Hw	Se ¹² Hm ⁸ Yc Cw	800	400	400	3	Fd	1.50
								Hw	1.00	
								Cw, Hm, Yc	0.75	
								Se	0.50	
	04	1006610	Fd	Se ¹² Pw ¹⁶ Yc Cw	900	500	400	3	Pw	2.50
								Fd	1.50	
								Cw, Yc	0.75	
								Se	0.50	
	05	1006611	Ba ¹⁸ Cw Fd ⁶ Yc	Hw Bp ¹² Pw ¹⁶	900	500	400	3	Pw	2.50
								Fd	2.25	

Biogeoclimatic Classification		Std ID	Species		Well Spaced Stocking			Regen Delay (Max yrs)	Minimum Height	
			Preferred (p)	Acceptable (a)	Target	MSS	MSP		Species	Ht (m)
Zone/SZ	Series				(well-spaced/ha)					
									Hw	1.25
									Bp, Cw, Yc	1.00
									Ba	0.75
	06	1006612	Hw Cw Yc	Ba ¹⁸ Hm ⁸ Fd ⁹	900	500	400	6	Fd	2.25
									Hm, Hw	1.25
									Cw, Yc	1.00
									Ba	0.75
	07	1006613	Ba ¹⁸ Cw ¹ Hw	Hm ⁸ Yc ¹	800	400	400	3	Hw	1.00
									Ba, Cw, Hm, Yc	0.75
	08	1006614	Ba ¹⁸ Cw Yc	Hw ² Fd ⁶	900	500	400	3	Fd	3.00
									Hw	1.75
									Cw, Yc	1.25
									Ba	1.00
	09*	1006615	PI ¹	Yc ¹	400	200	200	3	PI	1.25
									Yc	0.75
	10	1006616	Cw ¹	Pw ¹⁶ Yc ¹	800	400	400	3	Pw	2.50
									Cw, Yc	0.75
CWHvm1	01	1006617	Cw Hw Fd ⁶ Yc ¹⁵ Ba ^{14,18}	Pw ¹⁶ Ss ¹⁷	900	500	400	6	Fd, Hw, Ss	3.00
									Ba, Pw	1.75
									Cw, Yc	1.50
	02*	1006618	PI Cw Fd ⁶	Hw	400	200	200	3	Fd, Hw	2.00
									PI	1.25
									Cw	1.00
	03	1006619	Cw Hw Fd ⁶	PI Pw ¹⁶	800	400	400	6	Fd, Hw	2.00
									PI, Pw	1.25
									Cw	1.00
	04	1006620	Cw Hw Fd ⁶	Ba ^{7,18} Yc ⁸	900	500	400	3	Fd, Hw	3.00
									Ba	1.75
									Cw, Yc	1.50
	05	1006621	Ba ¹⁸ Cw Hw Fd ^{1,6} Yc ¹⁵	Ss ¹⁷	900	500	400	3	Fd, Hw, Ss	3.00
									Ba	1.75
									Cw, Yc	1.50
	06	1006622	Ba ^{14,18} Cw Hw Yc ¹⁵	Fd ¹¹ Ss ¹⁷	900	500	400	6	Hw, Ss	3.00

Biogeoclimatic Classification		Std ID	Species		Well Spaced Stocking			Regen Delay (Max yrs)	Minimum Height	
					Target	MSS	MSP		Species	Ht (m)
Zone/SZ	Series		Preferred (p)	Acceptable (a)	(well-spaced/ha)					
									Ba	1.75
									Cw, Yc	1.50
	07	1006623	Ba ¹⁸ Cw Fd ^{1,6}	Ss ¹⁷	900	500	400	3	Fd, Hw, Ss	4.00
			Hw ² Yc ¹⁵						Ba	2.25
									Cw, Yc	2.00
	08	1006624	Ba ¹⁸ Cw Hw ²	Ss ¹⁷	900	500	400	3	Hw, Ss	4.00
									Ba	2.25
									Cw	2.00
	09	1006626	Ba ¹⁸ Cw Hw	Ss ¹⁷	900	500	400	3	Hw, Ss	4.00
									Ba	2.25
									Cw	2.00
	10	1006627	Cw ¹	Ba ^{1,18} Ss ^{1,17}	900	500	400	3	Ss	4.00
									Ba	2.25
									Cw	2.00
	12	1006628	Cw ¹ Hw ¹ Yc ¹	Pl ¹	800	400	400	3	Fd, Hw	2.00
									Pl	1.25
									Cw, Yc	1.00
	13*	1006629	Pl ¹	Cw ¹	400	200	200	3	Pl	1.25
									Cw	1.00
	14	1006630	Cw ¹ Hw ¹ Ss ^{1,17}	Pl ¹	800	400	400	3	Hw, Ss	3.00
									Pl	2.00
									Cw	1.50
	All IC OG**	1036942	Fd Hw Cw Yc Ba			>40 m2 basal area				
	All IC 2G**	1036946	Fd Cw Hw Ba		400	300	300			
	01,05,06,07, 08,09 Patch mixedwood	1036949	Dr Fd ²¹ Hw ²¹ Cw ²¹		1200	700	700	3	Dr,Fd,Cw	4.00
	01,05,06,07 08,09 Extensive	1036952	Dr		1200	700	700	3	Dr	4.00
CWHvm2	01	1006631	Fd ^{1,6,12} Hw Cw Yc	Ss ^{4,17}	900	500	400	6	Ss	3.00
			Ba ¹⁸ Hm ¹⁵						Hw	2.50
									Fd	2.25
									Ba	1.75
									Cw, Yc	1.50
									Hm	1.00

Biogeoclimatic Classification		Std ID	Species		Well Spaced Stocking			Regen Delay (Max yrs)	Minimum Height	
Zone/SZ	Series		Preferred (p)	Acceptable (a)	Target	MSS	MSP		Species	Ht (m)
					(well-spaced/ha)					
	02*	1006632	PI Cw Fd ⁶ Yc	Hw Hm ⁸	400	200	200	3	Hw	1.75
									Fd	1.50
									PI	1.25
									Cw, Yc	1.00
									Hm	0.75
	03	1006633	Cw Hw Fd ⁶ Yc	Pw ^{11,16}	800	400	400	6	Pw	2.50
									Hw	1.75
									Fd	1.50
									Cw, Yc	1.00
	04	1006634	Cw Hw Fd ⁶ Yc	Ba ¹⁸ Pw ^{11,16}	900	500	400	6	Pw	2.50
									Hw	1.75
									Ba, Fd	1.50
									Cw, Yc	1.00
									Hm	0.75
	05	1006635	Cw Hw Yc Ba ¹⁸	Fd ^{1,5,6,12} Ss ^{10,17} Hm ⁸	900	500	400	3	Ss	3.00
									Hw	2.50
									Fd	2.25
									Ba	1.75
									Cw, Yc	1.50
									Hm	1.00
	06	1006636	Cw Hw Yc Hm ¹⁵ Ba ¹⁸	Ss ^{9,17}	900	500	400	6	Ss	3.00
									Hw	2.50
									Ba	1.75
									Cw, Yc	1.50
									Hm	1.00
	07	1006637	Cw Hw ² Yc Ba ¹⁸	Ss ^{10,17} Hm ⁸	900	500	400	3	Ss	4.00
									Hw	3.50
									Ba	2.25
									Cw, Yc	2.00
									Hm	1.00
	08	1006651	Cw ⁹ Hw ² Yc Ba ¹⁸	Ss ¹⁷ Hm ⁸	900	500	400	3	Ss	4.00
									Hw	3.50
									Ba	2.25
									Cw, Yc	2.00
									Hm	1.00
	09	1006652	Cw ¹ Hw ¹ Yc ¹	Ba Hm ⁸	800	400	400	3	Hw	1.75
									Ba	1.50
									Cw, Yc	1.00

Biogeoclimatic Classification		Std ID	Species		Well Spaced Stocking			Regen Delay (Max yrs)	Minimum Height	
			Preferred (p)	Acceptable (a)	Target	MSS	MSP		Species	Ht (m)
Zone/SZ	Series				(well-spaced/ha)					
									Hm	0.75
	10*	1006653	Pl ¹ Yc ¹	Hm	400	200	200	3	Pl	1.25
									Yc	1.00
									Hm	0.75
	11	1006654	Cw ¹ Yc ¹	Hw ¹	800	400	400	3	Hw	1.75
									Cw, Yc	1.00
	All IC OG**	1036943	Fd Hw Cw Yc Ba			>40 m2 basal area				
CWHxm	01	1006655	Fd Cw ¹⁹ Hw ^{13,20}	Pw ¹⁶	900	500	400	3	Fd, Hw	3.00
									Pw	2.50
									Cw	1.50
	02*	1006656	Pl Fd	Cw	400	200	200	3	Fd	2.00
									Pl	1.25
									Cw	1.00
	03	1006657	Fd Pl ³	Cw Pw ¹⁶ Hw ¹³	800	400	400	3	Fd	2.00
									Hw, Pl, Pw	2.00
									Cw	1.00
	04	1006658	Fd	Pw ¹⁶ Cw	900	500	400	3	Fd	3.00
									Pw	2.50
									Hw	2.00
									Cw	1.50
	05	1006659	Cw Fd	Bg ¹⁸ Pw ¹⁶ Hw ^{15,20}	900	500	400	3	Fd	4.00
									Bg	3.50
									Hw	3.00
									Pw	2.50
									Cw	2.00
	06	1006660	Cw Hw Fd ¹		900	500	400	6	Fd	3.00
									Hw	2.00
									Cw	1.50
	07	1006661	Cw Fd Bg ¹⁸	Hw ²	900	500	400	3	Fd	4.00
									Bg	3.50
									Hw	3.00
									Cw	2.00
	08	1006662	Cw Ss ¹⁷	Bg	900	500	400	3	Ss	4.00
									Bg	3.50
									Cw	2.00
	09	1006663	Cw ¹	Bg ¹	900	500	400	3	Bg	3.50
									Cw	2.00

Biogeoclimatic Classification		Std ID	Species		Well Spaced Stocking			Regen Delay (Max yrs)	Minimum Height	
					Target	MSS	MSP		Species	Ht (m)
Zone/SZ	Series		Preferred (p)	Acceptable (a)	(well-spaced/ha)					
	11*	1006664	Pl ¹	Cw ¹	400	200	200	3	Pw	2.50
									Fd	2.00
									Lw, Ss	1.50
									Pl	1.25
									Cw	1.00
	12	1006665	Hw ^{1,2} Cw ¹	Pw ¹⁶ Ss ¹⁷	800	400	400	3	Pw	2.50
									Hw	2.00
									Ss	1.50
									Cw	1.00
	13	1006666	Cw Bg ¹⁸ Fd ¹		900	500	400	3	Fd	4.00
									Bg	3.50
									Cw	2.00
	14	1006667	Bg ^{1,18} Cw ¹		900	500	400	3	Bg	3.50
									Cw	2.00
	15	1006668	Cw ¹		800	400	400	3	Cw	2.00
	All IC OG**	1036944	Fd Hw Cw			>40 m2 basal area				
	All IC 2G**	1036947	Fd Cw Hw		400	300	300			
	01,05,06,07, 08,09,13,14 Patch mixedwood	1036950	Dr Fd ²¹ Hw ²¹ Cw ²¹		1200	700	700	3	Dr,Fd,Cw	4.00
	01,05,06,07 08,09,13,14 Extensive	1036953	Dr		1200	700	700	3	Dr	4.00
MHmm1	01	1006669	Ba Hm Yc	Se ¹² Hw ⁹	900	500	400	7	Hm, Hw, Yc	1.00
									Se	1.00
									Ba	0.60
	02	1006670	Hm Yc	Ba Se ¹²	800	400	400	4	Hm, Yc	0.75
									Se	0.75
									Ba	0.60
	03	1006671	Ba Hm Yc	Hw ⁹	900	500	400	4	Hm, Hw, Yc	1.00
									Ba	0.60
	04	1006672	Ba Hm Yc	Hw ⁹	900	500	400	7	Hm, Hw, Yc	1.00
									Ba	0.60
	05	1006673	Ba Yc	Hm Hw ⁹	900	500	400	4	Hm, Hw, Yc	1.00
									Ba	0.60
	06	1006674	Hm ¹ Yc ¹	Ba ¹	800	400	400	7	Hm, Yc	0.75
									Ba	0.60

Biogeoclimatic Classification		Std ID	Species		Well Spaced Stocking			Regen Delay (Max yrs)	Minimum Height	
					Target	MSS	MSP		Species	Ht (m)
Zone/SZ	Series		Preferred (p)	Acceptable (a)	(well-spaced/ha)					
	07	1006675	Ba ¹ Yc ¹	Hm ¹	900	500	400	4	Hm, Yc	0.75
									Ba	0.60
	08*	1006676	Hm ¹ Yc ¹		400	200	200	4	Hm, Yc	0.75
	09	1006677	Yc ¹	Hm ¹	800	400	400	4	Hm, Yc	0.75

*Marginally suited for timber production

** All site series, intermediate cut, old growth/second growth, standard applicable to layer 1 trees

Footnotes

- 1 elevated microsites are preferred
- 2 suitable on thick forest floors
- 3 restricted to nutrient very poor sites
- 4 restricted to nutrient medium sites
- 5 restricted to steep slopes
- 6 restricted to southerly aspects, or to locations transitional to CWHdm
- 7 restricted to northerly aspects
- 8 restricted to upper elevations of the biogeoclimatic unit or where occurring as a major species in the pre-harvest natural stand
- 9 restricted to lower elevations of the biogeoclimatic unit or where occurring as a major species in the pre-harvest natural stand
- 10 restricted to the northern portion of the biogeoclimatic unit or where occurring as a major species in the pre-harvest natural stand
- 11 restricted to the southern portion of the biogeoclimatic unit or where occurring as a major species in the pre-harvest natural stand
- 12 restricted to trial use
- 13 suitable as a major species in the wetter portion of the biogeoclimatic unit
- 14 suitable as a minor species in salal dominated sites
- 15 restricted to sites where the species occurs as a major species in the pre-harvest natural stand
- 16 risk of white pine blister rust, unless rust resistant stock is planted, cannot contribute to MSS and limited to 10% of TSS; resistant stock can contribute to MSS and up to 25% of MSP and 100% of MSP for Phellinus root rot sites
- 17 risk of weevil damage, unless weevil resistant stock is planted, cannot contribute to MSS and limited to 10% of TSS; resistant stock can contribute to MSS and up to 25% of MSP
- 18 limited to 35% of TSS in recognized areas of balsam woolly adelgid
- 19 limited to 35% of MSP
- 20 preferred within 30 meters of north facing edges shaded by standing timber.
- 21 Fd, Cw and Hw limited to 20% of the mixedwood standard and will meet the free growing criteria established for conifer including the height to alder ratio noted in 1.3.2 above.
- 22 Hw is preferred on northerly aspects or in situations where advanced natural regeneration of Hw precludes planting with other species and is acceptable in all other situations

