TIMBERWEST FOREST CORP.

QUADRA - QUINSAM

FOREST STEWARDSHIP PLAN

Replacing the Forest Stewardship Plan approved August 2017

Final Submission: TBD

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Date: _____

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Jennifer Peschke, R.P.F.

Date: _____

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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strategy is included under this FSP is cancelled, the result or strategy under this FSP pertaining to that objective is no longer applicable effective the date of cancellation of the objective.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 is: TBD.

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

The Term of this FSP will be 5 years beginning on the Commencement Date.

2.3 COMMENCEMENT DATE

The Commencement Date for the Term of this FSP is the date it is approved.

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. A94736 (formerly FL A29159 and FL A20913)[1]
- TFL 47 Block 12 (Quadra)

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.

The Forest Development Units (FDUs) in effect on the Date of Submission of this FSP are the same as the FDUs contemplated in this replacement FSP. Figure 1 provides an overview of the FSP plan area and the FDU(s) that will take effect upon approval of this FSP. FDU S covers the Quinsam plan area in the Sayward Landscape Unit. The Quadra Island landscape unit is divided up into 2 separate FDUs. The northern portion of the Quadra landscape outside Special Management Zone 19 (Vancouver Island Land Use Plan Higher Level Plan Order designation) is identified as Qn. The remaining portion of the plan areas is identified as proposed FDU Qs.

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.

[1] The Great Bear Rainforest (GBR) Act and specifically the pursuant regulations that came into effect on January 1, 2017 has resulted in a new forest licence, A94736, for the non GBR operating area of the former forest licences.

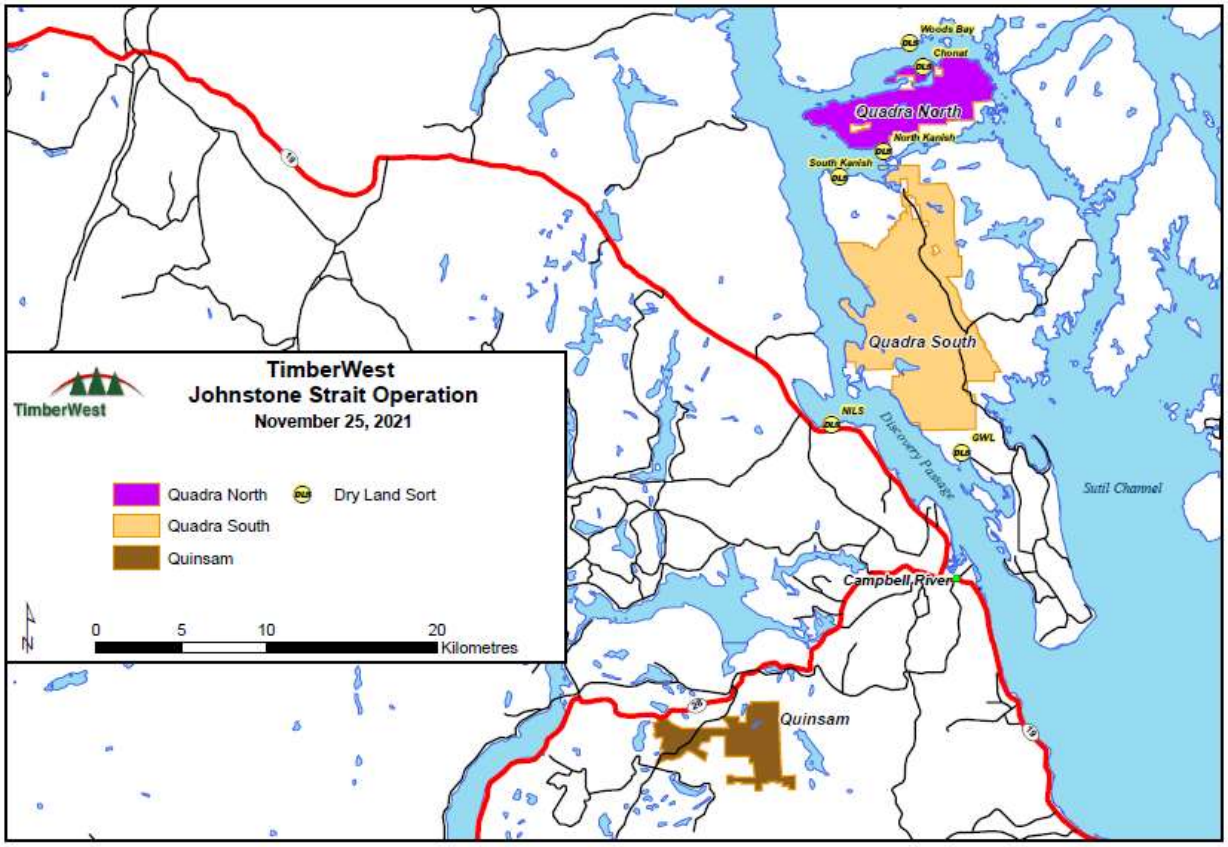

Figure 1. Quadra - Quinsam FSP Area (Operating Areas)

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 VQOs (December 14, 2005)
- Species at Risk Notice Campbell River Forest District – July 27, 2004
- Order to identify Recreation Resource Features – Campbell River Forest District April 12, 2006
- Order to identify Karst Resource Features for the Campbell River Forest District, May 30, 2007
- Existing Cutting Permits and Road Permit's

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

FRPA S.1 definitions defines "objectives set by government" to include objectives established or continued under sections 93.4 of the Land Act.

The sections which follow detail the results and strategies required to comply with the Vancouver Island Land Use Plan.

6.1 VANCOUVER ISLAND LAND USE PLAN HIGHER LEVEL PLAN ORDER

On December 1, 2000 the Vancouver Island land Use Plan (VILUP) – Higher Level Plan Order (HLP) took effect. This HLP Order established resource management zones and accompanying objectives for each of these zones. One of the Special Management Zones (SMZ) established in this order is SMZ 19 covering the Northern portions of Quadra Island and all of proposed FDU Qs. SMZ 19 is illustrated in Figure 2 which shows how the SMZ intersects the plan area.

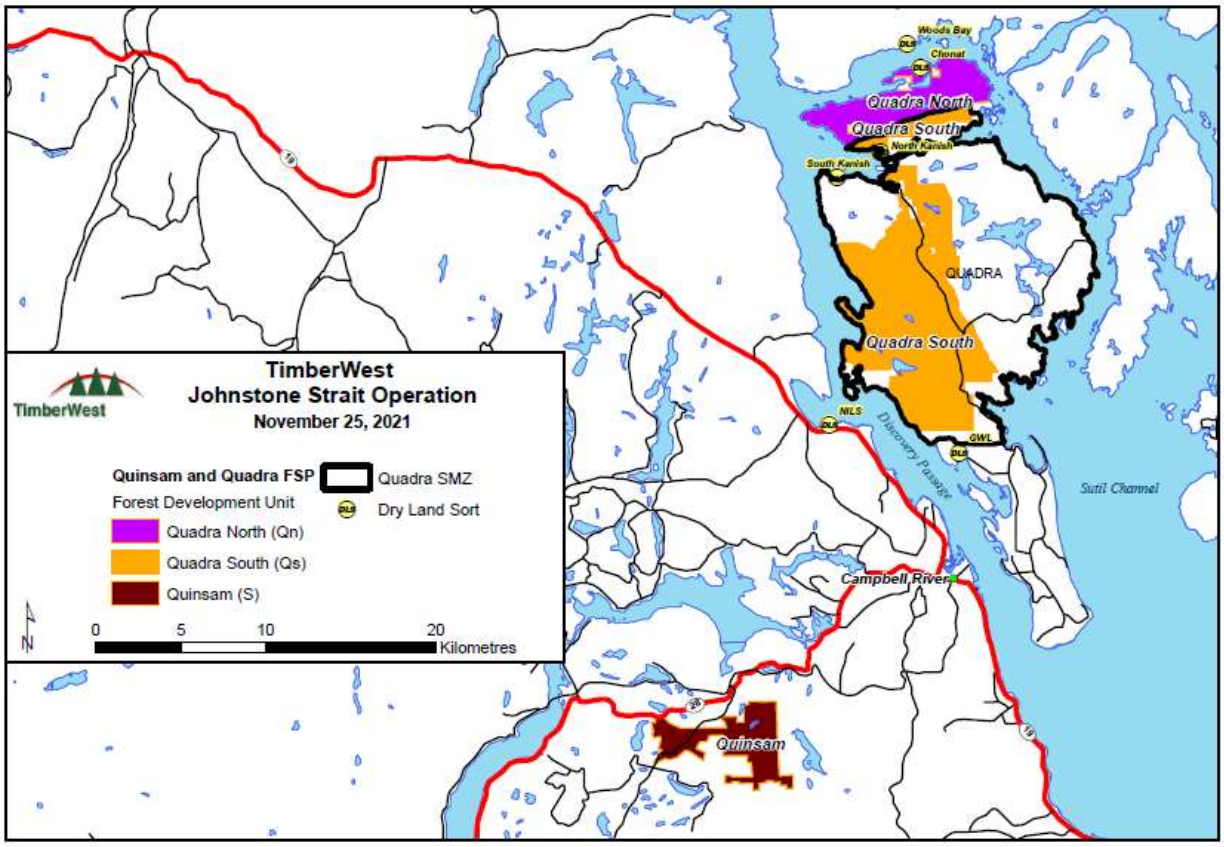

Figure 2. VILUP Special Management Zone 19 and Proposed Forest Development Units

Special management regimes are identified for key primary resource values found in individual SMZ units to ensure that those primary values are maintained. Some special management regimes require forest practices which are incremental to the general direction provided by legislation. Management of resource values within SMZs, which are not specifically identified as primary values, will be in accordance with the general management regimes.

Special Management Zones are areas whose management priorities must incorporate identified primary environmental, recreational, and cultural heritage values. The sections that follow detail the relevant HLP objectives as indicated in the VILUP Order as they relate to SMZ 19 and proposed FDU Qs on Quadra Island. The following sections provide the details of the Order and TimberWest's result and/or strategy to meet the objective for proposed FDU Qs. Only objectives 1a, 1b, 1c, 2 and 6 of the Higher Level Plan Order apply to SMZ 19. Consequently, results and strategies to address other objectives listed in the HLP are not required.

6.1.1 HIGHER LEVEL PLAN OBJECTIVE 1A

Objective:

1. Sustain forest ecosystem structure and function in SMZs, by:
    a) Creating or maintaining stand structures and forest attributes associated with mature[2] and old[3] forests subject to the following:
        i. The target for mature seral forest should range from one quarter to one third of the forested area of each SMZ[4]; and
        ii. In the SMZs where the area of mature forest is currently less than the mature target range referred to in (i) above, the target amount of mature forest must be in place within 50 years.

Applicable Area: Proposed FDU Qs

Result or Strategy:

Regarding Objective 1(a) when planning primary forest activities TimberWest will:

i. In concert with other harvesting licence holders operating in the Special Management Zone ensure that planned development and harvesting activities will not result in the proportion of mature forest area dropping below 25% in the FDU.

ii. An analysis will be completed on an annual basis to ensure that planned development and harvesting activities will not result in the proportion of mature forest area dropping below 25% in the FDU.

6.1.2 HIGHER LEVEL PLAN OBJECTIVE 1B

Objective:

1. Sustain forest ecosystem structure and function in SMZs by:
    b) Retaining, within cutblocks[5], structural forest attributes and elements with important biodiversity functions[6].

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[2] The mature seral forest is defined as generally 80 to 120 years old or older, depending on species and site conditions. The structure of mature seral forests generally includes canopies that vary vertically or horizontally, or both. The age and structure of the mature seral stage will vary significantly by forest type and from one biogeoclimatic zone to another. For this FSP, mature is defined as 80-250 years old.

[3] The old seral forest is defined as generally greater than 250 years old, containing live and dead (downed and standing) trees of various sizes, including large diameter trees, and of various tree species, including broad-leaved trees. The structure of old seral forest varies significantly by forest type and from one biogeoclimatic zone to another.

[4] Mature seral targets will be established through landscape unit planning. See transition provisions under III.

[5] Within cutblocks: generally means non-contiguous with cutblock boundaries.

[6] This includes, but is not limited to snags, wildlife trees, downed logs.

Applicable Area: Proposed FDU Qs

Result or Strategy:

Regarding Objective 1(b) when conducting or carrying out a primary forest activity TimberWest will:

i. Retain wildlife trees as specified in Section 66 of the FPPR, as it was at the time of the submission of this plan, and

ii. Retain coarse woody debris in harvest areas as specified for coastal activities in Section 68 of the FPPR, as it was at the time of the submission of this plan, and

iii. Retain snags and wildlife trees within cutblocks where safe to do so.

6.1.3 HIGHER LEVEL PLAN OBJECTIVE 1C

Objective:

1. Sustain forest ecosystem structure and function in SMZs by:
   c) Applying a variety of silvicultural systems, patch sizes and patch shapes across the zone, subject to a maximum cutblock size of 5 ha if clearcut, clearcut with reserves or seed tree silvicultural systems are applied, and 40 ha if shelterwood, selection or retention silvicultural systems are applied[7].

Applicable Area: Proposed FDU Qs

Result or Strategy:

Regarding Objective 1(c) when conducting or carrying out a primary forest activity TimberWest will establish a variety of cutblock sizes and shapes across the proposed FDU subject to the following conditions:

i. 5 hectare maximum net area to be reforested for clearcut, clearcut with reserves or seed tree silviculture systems, and

ii. 40 hectare maximum if the silviculture system is shelterwood, selection or retention.

6.1.4 HIGHER LEVEL PLAN OBJECTIVE 2

Objective:

2. Despite subsection 1(c) above, cutblocks larger than 5 or 40 ha as the case may be, may be approved if harvesting is being carried out to recover timber that was damaged by fire, insects, wind or other similar events and wherever possible, the cutblock incorporates structural characteristics of natural disturbances.

[7] Maximum cutblock sizes refer to net area to be reforested.

Applicable Area: Proposed FDU Qs

Result or Strategy:

Regarding Objective 2 when conducting or carrying out a primary forest activity TimberWest may propose and carry out harvesting activities that exceed the size limitations described in 6.1.3 above, if:

i. Harvesting is required to recover timber which has been damaged by wind, insects, fire or other similar destructive events, and

ii. Wherever possible, the cutblock incorporates structural characteristics of natural disturbance consistent with the area.

6.1.5 HIGHER LEVEL PLAN OBJECTIVE 6

Objective:

6. Maintain the visual quality of known scenic areas in accordance with the recommended visual quality classes in the visual landscape inventory, until the District Manager establishes the visual quality objectives for the areas.

Applicable Area: Proposed FDU Qs

Result or Strategy:

Visual quality objectives were established for the Campbell River Forest District on December 14, 2005. These objectives replace those detailed in the VILUP – HLP. Consequently visuals will be managed according to the result/strategy specified in section 8.10 of this FSP.

6.2 SAYWARD LANDSCAPE UNIT

On July 1, 2003 objectives for the Sayward Landscape Unit were established. The intent of landscape unit planning is to address landscape level biodiversity management. The Objectives established by government for this landscape unit are as follows.

Landscape unit planning identifies OGMAs in the landscape unit and completes the biodiversity chapter for the area. As a result of this planning being complete the Provincial Non-Spatial Old Growth Order no longer applies.

Objective 1:

1. Maintain or recruit old growth forest attributes in designated old growth management areas (OGMA, OGMA/UWR for Deer, and OGMA/UWR for Elk), as shown on the attached Sayward Landscape Unit map[8], titled Biodiversity and Wildlife. Timber harvesting, including salvage, single tree selection, topping for cone harvesting, and commercial gathering of botanical forest products, will not be permitted within OGMAs except as specified in sections 2 and 3 below.

[8] Objective text has not been modified from its original in the higher level plan order. The map referenced above is not part of this FSP and is therefore not included with this document.

2. The Delegated Decision Maker (DDM) may allow operations to occur within an OGMA that are not to be established as UWR for Deer or Elk for reasons such as but not limited to the following:

    i. To prevent the spread of insect infestations or diseases that pose a significant threat to forested areas outside of OGMAs. This will be done in a manner that retains as many old growth forest attributes as possible.

    ii. Construction of roads if no other practicable option exists.

    iii. Partial-cut timber harvesting within immature (<100 years old) portions of OGMAs, where it can be demonstrated that harvesting will accelerate development of old growth forest attributes and improve the stand for biodiversity purposes, without compromising other resource values.

3. The following do not require the approval of the Delegated Decision Maker before proceeding:

    i. Maintenance, deactivation, removal of danger trees, or brushing and clearing on existing roads under active tenure within the right-of-way for safety purposes.

    ii. Felling of guyline clearance, tailhold anchor trees, or danger trees (except high value live wildlife trees1) along cutblock boundaries or within the right of way on new road/bridge alignments to meet safety requirements. These trees are to be retained on site for coarse woody debris.

    iii. Intrusions, less than 0.5 hectares in size for OGMAs that are not established as UWR for Deer or Elk.

    iv. OGMAs that are not to be established as UWR for Deer or Elk that are >10 ha in size may be modified for operational reasons provided that replacement OGMA of like or better quality and quantity is identified in order of priority, 1) immediately adjacent to the existing OGMA, or 2) in the same variant and landscape unit as the existing OGMA such that OGMA ecological attributes and spatial distribution are maintained or improved in one of the following categories:

        1. OGMAs ≥10 ha to <50 ha in size where the proposed development affects the OGMA by <5 ha,

        2. OGMAs ≥50 ha to <100 ha in size where the proposed development affects the OGMA by <10ha,

        3. OGMAs ≥100 ha in size where the proposed development affects the OGMA by <10%.

        4. Construction of ≤500m of road or a bridge within an OGMA where there is no other practicable option. As an alternative to finding replacement area, the licensee may deactivate or rehabilitate a temporary road or bridge site within four years after construction.

        5. Construction of rock quarries and gravel pits under authority of forest tenure where the development will be located immediately adjacent to existing roads under tenure and will affect the OGMA by <0.5 ha.

Applicable Area: Proposed FDU S

Result or Strategy:

If the holder of this FSP conducts primary forest activities in FDU S, the holder will plan such activities to be consistent and compliant with the practice requirements and process described in paragraphs 1, 2 and 3 of objective 1 above by adopting the practice requirements specified in those paragraphs as the strategy for meeting the objective .

Objective 2:

Maintain stand level structural diversity by retaining wildlife tree patches (WTP). Cutblocks for which harvesting has been completed by each licensee by tenure will maintain adequate amounts of wildlife tree patches to ensure that over any 5 year period, commencing on the date the objectives are established, the target percentage as noted in Table A is achieved.

In addition:

(1) WTPs must be well distributed across the BEC subzone or variant.

(2) No timber harvesting, including salvage or single tree selection, is to occur within WTPs.

(3) WTPs must include, if present, live or dead veteran trees (excluding danger trees), or remnant old growth patches.

(4) WTPs must include larger trees for the stand and any existing moderate to high value wildlife trees (excluding danger trees).

(5) BEC subzones and/or variants will be determined by site plan information.

BEC Subzone/Variant	% Wildlife Tree Retention
CWHmm1 (Coastal Western Hemlock, Submontane moist maritime)	**13%**
CWHmm2 (Coastal Western Hemlock, Montane moist maritime)	**10%**
CWHxm (Coastal Western Hemlock Very Dry Maritime)	**14%**
MHmm1 (Mountain Hemlock, Windward moist maritime)	**2%**

Table A. Wildlife Tree Retention by BEC subzone in the Sayward landscape Unit.

Applicable Area: Proposed FDU S

Result or Strategy:

If the holder of this FSP conducts primary forest activities in FDU S, the holder will carry out such activities to meet the stand level wildlife tree retention targets detailed in Table A. In addition to meeting Table A targets Wildlife Tree Retention will be managed to meet stipulations 1 through 5 of the objective.

Objective 3:

Provide for spring forage adjacent to Ungulate Winter Ranges/Deer, as indicated on the Sayward Landscape Unit map, titled Biodiversity and Wildlife by managing seral stages as follows:

- Identifying Ungulate Winter Ranges/Deer within the Strathcona Timber Supply Area and determining all areas within 2 km that are on slopes 40 to 100% and with an aspect of exposure from 90 through 270 degrees and, ensuring that no more than 25% of this area be younger than 20 years old at any point in time; or

- Identifying Ungulate Winter Ranges/Deer within Tree Farm Licence 39 and managing as per the Weyerhaeuser Standard Operating Procedure for the Management of Critical Spring Forage Adjacent to Black-tailed Deer Winter Ranges, dated and approved July 9, 2001.

Applicable Area: Proposed FDU S

Result or Strategy:

There are no ungulate winter ranges or spring forage habitat in FDU S therefore, a result or strategy is not required to accommodate and manage for these features.

FDU S is not part of TFL 39, therefore the second bullet in objective 3 is not applicable.

Objective 4:

Manage stand structure and provide hiding cover for elk in the Elk Visual Cover Areas as identified on the attached Sayward Landscape Unit map[9], titled Biodiversity and Wildlife, by:

- Maintaining at least 50% of the forested area of each Elk Visual Cover Area at greater than 5 meters in height; and
- Prohibiting further harvesting adjacent to the major riparian feature (swamp, lake or stream) within the Elk Visual Cover Areas identified on the Sayward Landscape Unit map, titled Biodiversity and Wildlife, until the forest on the opposite side of the riparian feature exceeds the 5 meter height requirement for a lateral distance of 100 m from the riparian feature.

Applicable Area: Proposed FDU S

Result or Strategy:

There are no elk visual cover areas in FDU S therefore, a result or strategy is not required to accommodate and manage for these features.

Objective 5:

To manage stand structure and protect Critical Stream Reaches, as shown on the Sayward Landscape Unit map, titled Lakes Classification, and Small Spawning and Rearing Streams (S4) by:

- Retaining all windfirm trees with roots embedded in the stream bank; and
- For S4 streams, retaining 50% of the stems, representative of species, age and size, within 10 m of the channel.

Applicable Area: Proposed FDU S

Result or Strategy:

<u>Approach to Harvesting and Roads</u>

If the holder of this FSP conducts harvesting in:

[9] Objective text has not been modified from its original in the higher level plan order. The map referenced above is not part of this FSP and is therefore not included with this document. Refer to supporting documentation for map references.

(a) The riparian management zone of an S4 stream, or

(b) Within the management zone of a critical stream reach as identified on the Sayward Landscape Unit map titled *Lakes Classification* and dated January 20, 2003.

The holder of this FSP will leave standing trees in the management zone and where possible to the extent that worker safety is not put at risk trees that are:

(a) Windfirm with roots embedded in the stream bank; and

(b) Within 10 meters of the S4 stream greater than 50% of the representative stems based on species, age and size prior to harvesting operations.

Objective 6:

To establish a patch size objective and pursue enhanced timber harvesting opportunities, within areas not subject to integrated resource management (i.e., ungulate winter ranges, elk hiding cover areas, old growth management areas, recreation resource units, visually sensitive landscapes, recreation constraint areas, lakeshore management zones, and designated community watersheds) and as shown as Non-constraint Areas on the Sayward Landscape Unit map titled, Non-constraint Areas, by allowing cutblocks up to, but not exceeding 80 ha in size.

Applicable Area: Proposed FDU S

Result or Strategy:

Definitions

1.1 In Paragraphs 1.2

(a) "**Non Constrained areas"** are those areas identified on the "Sayward Landscape Unit Non-Constrained Areas" map dated February 12, 2003.

Approach to Harvesting and Roads

1.2 Subject to paragraph 1.1 if the holder of this FSP carries out primary forest activities within the areas identified as **Non Constrained areas** as identified on the map referenced in 1.1 (a) the holder of this FSP will do so in a manner which does not create an opening with a net area to be reforested greater than 80 hectares.

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 S. 180 as they are relevant to the area under consideration in each of the proposed FDUs for this FSP.

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: FDU Qs and Qn (Quadra landscape unit)

Result or Strategy:

If the holder of this FSP conducts Primary Forest Activities, the holder will plan such activities to be consistent with the requirements of the old growth order. Planning of primary forest activities will take place in a manner which ensures that the amounts of old forest retention specified in the order for retention and recruitment are satisfied for low, intermediate and high biodiversity emphasis, to the extent practicable. Subject to paragraph 5 of the Order, the holder of this FSP will not allow its primary forest activities to cause the percent retention to fall below the target amounts specified in the order[10].

Prior to the completion of the landscape unit planning process TimberWest remains committed to not harvesting any old growth, other than that absolutely required for road construction or safety, until OGMAs are established. Subsequent to the completion of landscape unit planning and establishment of OGMAs in the Quadra landscape unit the holder of this FSP will conduct Primary Forest Activities consistent with that plan.

Retention targets for the subzone variants within the plan area for each of the respective Landscape Units are as follows:

- Quadra – Intermediate Biodiversity emphasis (Proposed FDU Qn & Qs)
    - CWHmm1 – 9% (NDT2)
    - CWHxm – 9% (NDT2)

7.2 RESOURCE FEATURES

Objective: NA

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

7.3 RECREATION RESOURCES

Objective: NA

[10] The holder of this FSP is the only operator in the Quadra landscape unit to which the old growth order applies, woodlot are not included in the order. Therefore, the holder of this FSP will not have to work in conjunction with any other licensees to ensure that the objective is met.

Reference: FRPA S. 180

Although Recreation Sites and Trails have been legally established, no formal objectives (as required by FRPA S. 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 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 SENSITVE WATERSHEDS

Objective: Not applicable. No fisheries sensitive watersheds continued under section 180(f) exist in the plan area. Refer 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 ensure 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 the 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 forest professional under the *Professional Governance Act and Forest Professionals Regulation* and being authorized under that Act and associated Regulation to undertake the practice of professional forestry 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

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)

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

Result or Strategy: NA

8.4.2 Species at Risk

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 FPPR section 7 notice pertaining to that species has been prepared by government. The results and strategies which follow will not result in doubling of the area specified for any species notice in the CRFD in the operating areas of the holder of this FSP.

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 FPPR section 7 notices have not been prepared for many of these additional species. Consequently, no results or strategies are necessary at this time.

8.4.2.1 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 responsible for the Wildlife Act 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 and 1.3, 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 (15 hectares) equal to 150% of the proportional distribution for the plan area covered by this FSP or defer harvesting of all old growth in the plan area; 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 S. 7(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.

8.4.2.2 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: No potential Coastal Tailed Frog habitat exists within the plan area. Thus, a result or strategy is not required.

8.4.2.3 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 responsible for the Wildlife Act 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 and 1.3, 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:

(e) 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;

(f) 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 S. 7(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.

8.5 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 Sections 8, 12(3)

Applicable Area: All proposed FDUs

Result or Strategy:

Definitions

1.1 In Paragraphs 1.3:

(a) "**Non status road**" 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 as determined through an **Evaluation** performed by a **Qualified Registered Professional**.

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 FPPR sections 47 to 49 (B.C. Reg. 14/2004), subject to the restrictions detailed in FPPR sections 50 to 52 (B.C. Reg. 14/2004) and the temperature sensitive stream requirements identified in FPPR section 53 (B.C. Reg. 14/2004);

(b) Implement 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) 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 bearing wetlands, lakes and streams; and

(c) the 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 as measured along the reach; 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 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 Sections 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 Sections 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 Sections 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*.

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 Sections 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, anchorage or city center; or

ii. included in the most current Visual Landscape Inventory; or

iii. determined to be important by a qualified registered professional, with consideration given to, but not limited to, transportation corridors and frequency and duration of view; and

(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) "**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. The visible landscape is limited to a maximum 60-degree angle-of-view from a given significant public viewpoint; and

(d) **"landform"** is a distinct topographic feature that is a sub-unit of the broader visible landscape, is three dimensional in form and is delineated from a significant public viewpoint in perspective view. The landform is generally defined by ridges, drainages / channels, valleys, shorelines and skylines.

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 (VQO's), the holder will apply the VQO as identified in the Order.

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 Further to sections 1.2 and 1.3, the holder of this FSP may conduct a primary forest activity that is consistent with an **Evaluation** made against the **visible landscape**, rather than against the specific visual landscape inventory polygon, provided that this visible landscape evaluation:

(a) Includes a group of landscape inventory polygons that:

(I) have the same VQO; or

(II) have different VQO's; and

(III) area adjacent to each other and/or are easily and naturally viewed together; and

(b) Includes an identification of the visual landscape inventory polygons considered part of the **visible landscape**; and

(c) Includes a rationale outlining how the holder of this FSP will undertake to comply with the VQO and:

(I) the reasons for the VQO being evaluated against the visible landscape rather than by visual landscape inventory polygons; and

(II) in the case of 1.4(a)(I) the extent to which the altered forest landscape in a visible landscape is consistent with the VQO and the categories of visually altered landscape in FPPR S. 1.1 as it was at the time of submission; or

(III) in the case of 1.4(a)(II) the extent to which the altered forest landscape in a visible landscape is consistent with the more restrictive VQO and the categories of visually altered landscape in FPPR S. 1.1 as it was at the time of submission; and

(d) Is made prior to road construction or cutblock harvesting.

1.5 Sections 1.2 and 1.3 do not apply where the holder of this FSP constructs a road or harvests a cutblock that is related to the harvesting of timber that is significantly damaged or destroyed by fire, insects, disease, wind or flooding and where the FSP holder:

(a) Completes a visual impact assessment by a **Qualified Registered Professional**; and

(b) Where opportunities exist, incorporates elements of good visual design into the size, shape and location of the timber harvesting and road building; and

(c) Completes a rationale outlining how subsection 1.5(b) was implemented, the measures that were considered and taken to accommodate the visual resource; and

(d) Is authorized or required by Government.

8.11 CULTURAL HERITAGE RESOURCES

Objective:

The objective set by government for cultural heritage resources[11] 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:

Approach to Harvesting and Roads

Definitions

In paragraphs 1.1 and 1.2:

(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) **"traditional use of cedar"** refers to use based on ongoing traditional use of continued importance within the FDU(s) for making paddles, masks, totems, canoes, baskets, clothing, house beams, poles and other similar traditional use items.

[11] "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.

1.1 Within an area in the FDU(s), if the holder of this FSP conducts Primary Forest Activities, the holder of this FSP will carry out these activities consistent with the objective to conserve and if necessary protect cultural heritage resources that are:

(a) referred to in Section 10 of Forest Planning and Practices Regulation; and

(b) likely to be adversely affected by the activities if the holder of this FSP is carrying out primary forest activities during the term of this FSP; and

(c) in the context of traditional use by aboriginal people are determined to be important, valuable, scarce and of continued importance; through:

i. information sharing with First Nations prior to review and comment of this Forest Stewardship Plan under Section 20 of the *Forest Planning and Practices Regulation;* or

ii. comments made by the affected First Nation in accordance with Section 21 of the *Forest Planning and Practices Regulation* and subsequently, confirmed by government in consultation with the First Nation; or

iii. comments made by the affected First Nation following the FSP approval and subsequently, confirmed by government in consultation with the First Nation.

1.2 In addition to subsection 1.2 (c) 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 1.2 (a)(i), (ii), (iii) and (iv).

(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 licensees, 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.

1.3 To the degree that the above criteria are satisfied for traditional use of cedar, opportunities for traditional use of cedar will be maintained as follows:

i. Western redcedar and yellow cedar will be planted on ecologically suitable sites to ensure that the species is maintained as an inventory component in the plan area.

ii. the license holder, upon request from aboriginal groups, will work with aboriginal groups to identify locations where cultural use trees are likely to be found, preference will be given in no particular order to:

a. Riparian Management Zones

b. Riparian Reserve Zones

c. Wildlife Tree Retention Areas

d. Ungulate Winter Range or Wildlife Habitat Areas

e. Old Growth Management Areas (OGMA)

f. Area constrained to address non timber values

8.12 MEASURES

8.12.1 Measures for Preventing the Introduction or Spread of Invasive Plants

Objective:

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:

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, including but not limited to Scotch broom, species of Hogweed and species of Knotweed; 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 Report-A-Weed app (www.gov.bc.ca/invasive-species), 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 FDUs therefore no measures have been developed.

9 QUADRA ISLAND CONSULTATION

This section is provided for information only. It is not considered a legal part of this FSP.

TimberWest is committed to maintaining the level of consultation with specific stakeholder groups in the plan area covered by this FSP. This consultation is not a legal requirement of FRPA and therefore, represents a voluntary commitment by the holder of this FSP to undertake and support this consultation process.

Applicable Area: Proposed FDU Qn & Qs

The following groups will be provided 1:5,000 scale maps of cutblocks and roads and be requested to provide comments within a 30 to 60 day timeframe.

Sierra Club of BC Quadra Island Group– all locations.

Quadra Island Trails Committee – all locations within 300 meters of a trail established as a resource feature under the Government Actions Regulation and any location that is potentially visible from an established trail.

Quadra Island Salmon Enhancement Society – all locations involving water bodies containing fish or non-fish streams immediately tributary to fish streams.

Quadra Island Conservancy and Stewardship Society – all locations in the vicinity of Morte Lake.

It is understood that these groups may provide this information to other groups or individuals that may be interested in providing comments.

10 STOCKING STANDARDS

The holder of a Forest Stewardship Plan is required, on cutblocks harvested under an FSP, to establish a 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 of 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

Intermediate cutting (IC) 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 Single Entry Dispersed Retention Stocking Standard (SEDRSS) discussion paper, Appendix 1 and 2.

https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/forestry/silviculture/stocking-standards/reference-guide/sedrss_implementation_guide.pdf

Intermediate cutting (thinning), where possible in combination with small patch cuts, is proposed in this plan in 2 scenarios. The first scenario will involve helicopter harvesting and will occur in stands that are constrained by other resource values, typically terrain stability and visuals (partial retention and retention). This intermediate cutting will involve the removal of up to 20% of the stand volume and no more that 35% of the volume of any one species. This prescription would provide for an opportunity for future harvesting. This application of this intermediate cutting will be restricted to SMZ 19 on Quadra Island. In the absence of FSP-wide approved stocking standards, TimberWest will submit stocking standards for approval prior to the commencement of harvest for each intermediate harvest cutblock.

The second scenario for intermediate cutting will be what traditionally has occurred on Quadra Island as commercial thinning. Harvesting will occur conventionally with ground based machines and will remove 15% to 25% of the stand volume on a cross sectional basis. In the majority of situations there will be an opportunity for an economic second pass in the near future, a minimum of 400 trees/ha will be retained. In situations where the opportunity for a second pass within a rotation is limited on not possible, for example within 50 meters of Main Lakes Park or the Morte Lake Conservancy property, or in RMZs with an associated RRZ, a minimum of 300 trees/ha will be retained.

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 MFLNRO will be maintained for twelve months following the completion of intermediate harvesting on the area that was harvested.

10.1 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, 14 and 15; 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.

10.2 HEIGHT OF CROP TREES ABOVE COMPETING VEGETATION

% of height of crop trees compared to competing vegetation:

Alder	150%
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.

10.3 SUITABILITY OF ALDER ON ALL HARVESTED AREAS

1. Where typical conifer stocking standards apply, up to 50 stems/ha of well distributed alder may be retained in order to promote long term stand biodiversity and productivity. Alder will not contribute towards achievement of stocking standards, but rather will be considered as a ghost tree.

10.4 FOREST HEALTH

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

Balsam Wooly Aphid

The plan area is within the quarantine zone. No occurrences of aphid attack have been observed within the plan area.

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 the minimum stocking standard (MSS) and is limited to 10% of target stocking standard (TSS). Planting of rust resistant stock will allow planted white pine to be fully 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.

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 are of limited concern. Both Phellinus and Armillaria 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 1.0 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 loses to 20% of potential mean annual increment.

Phellinus:

- Postharvest stumping on slopes less than 35% on sites where Douglas-fir is the preferred species.
- Planting cedar and/or white pine on sites suitable to these species.

Armillaria:

- 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 of crop trees.

10.5 PREFERENCE OF WESTERN HEMLOCK

Western hemlock (Hw) will be considered a preferred species in situations where advanced natural regeneration of Hw, resulting from a windthrow event, precludes planting with other species and where Hw is otherwise an acceptable species. This situation can only be applied to a maximum of 5% of the net area to be reforested. Acceptable future crop trees will be as defined in the Establishment to Free Growing Guidebook, Silviculture Surveys Procedures Manual (May 1, 2020) and Free-Growing Damage Criteria for Even-Aged Coniferous Trees. https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/forestry/silviculture/silviculture-surveys/free_growing_damage_criteria.pdf

APPENDIX 1: STOCKING STANDARDS

Biogeoclimatic Classification		Species		Well Spaced Stocking			Regen Delay (Max yrs)	Minimum Height	
				Target	MSS	MSP		Species	Ht (m)
Zone/SZ/SSID	Series	Preferred (p)	Acceptable (a)	(well-spaced/ha)					
CWHmm1									
1053694	01	Fd Cw Hw[7]	Pw[16]	900	500	400	6	Fd	3.00
								Hw, Pw	2.00
								Cw	1.50
1012014	02	Pl Fd	Cw	800	400	400	6	Fd	2.00
								Pl	1.25
								Cw	1.00
1053695	03	Fd Cw	Pw[16] Hw[18]	800	400	400	3	Fd	2.00
								Hw, Pw	1.75
								Cw	1.00
1012016	04	Fd Cw	Hw[18] Pw[16]	900	500	400	3	Fd, Pw	2.00
								Hw	1.75
								Cw	1.00
1012017	05	Fd Cw Hw[19]	Pw[16]	900	500	400	3	Fd	3.00
								Pw	2.50
								Hw	2.00
								Cw	1.50
1012018	06	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
1012019	07	Cw Fd	Ba[18] Hw[2,18]	900	500	400	3	Fd	4.00
								Hw	2.50
								Cw	2.00
								Ba	1.00
1012020	08	Ba[18] Cw Ss[17]		900	500	400	3	Ss	4.00
								Cw	2.00
								Ba	1.00
1012021	09	Cw[1]	Ba[1,18]	900	500	400	3	Cw	2.00
								Ba	1.00
1012022	11*	Pl[1]	Cw[1]	400	200	200	3	Pl	1.25
								Cw	1.00
1012027	12	Cw[1] Hw[1,2]	Ss[1,17,18]	800	400	400	3	Ss, Hw	2.00
								Cw	1.00
CWHxm									
1053698	01	Fd Cw Hw[13,20]	Pw[16]	900	500	400	3	Fd, Hw	3.00
								Pw	2.50
								Cw	1.50
1012065	01 IC	Fd Cw Hw	Pw	400	300	300			
1012031	02	Pl Fd	Cw[18]	400	200	200	3	Fd	2.00

Biogeoclimatic Classification		Species		Well Spaced Stocking			Regen Delay (Max yrs)	Minimum Height	
				Target	MSS	MSP			
Zone/SZ/SSID	Series	Preferred (p)	Acceptable (a)	(well-spaced/ha)				Species	Ht (m)
								Pl	1.25
								Cw	1.00
1053997	03	Fd Cw Pl[3]	Pw[16]Hw[13,18]	800	400	400	3	Fd, Pw	2.00
								Hw, Pl	2.00
								Cw	1.00
1012037	04	Fd Cw	Pw[16] Hw[13]	900	500	400	3	Fd	3.00
								Pw	2.50
								Hw	2.00
								Cw	1.50
1012042	05	Cw Fd Bg[18] Hw[18,19,20]	Pw[16]	900	500	400	3	Fd	4.00
								Bg	3.50
								Hw	3.00
								Pw	2.50
								Cw	2.00
1012114	05 IC	Cw Fd Bg Hw	Pw	400	300	300			
1012048	06	Cw Hw Fd[1]		900	500	400	6	Fd	3.00
								Hw	2.00
								Cw	1.50
1012050	07	Cw Fd Bg[18]	Hw[2]	900	500	400	3	Fd	4.00
								Bg	3.50
								Hw	3.00
								Cw	2.00
1012115	07 IC	Cw Fd Bg	Hw	400	300	300			
1012053	08	Cw Ss[17]	Bg	900	500	400	3	Ss	4.00
								Bg	3.50
								Cw	2.00
1012056	09	Cw[1]	Bg[1]	900	500	400	3	Bg	3.50
								Cw	2.00
1012057	11*	Pl[1]	Cw[1]	400	200	200	3	Pl	1.25
								Cw	1.00
1012059	12	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
1012061	13	Cw Bg[18] Fd[1]		900	500	400	3	Fd	4.00
								Bg	3.50
								Cw	2.00
1012063	14	Bg[1,18] Cw[1]		900	500	400	3	Bg	3.50
								Cw	2.00
1012064	15	Cw[1]		800	400	400	3	Cw	2.00

* Marginal sites for production of timber

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
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 on 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 restricted to locations where the species has good form and vigour in the pre-harvest natural stand
19 limited to 35% of MSP in recognized areas of Balsam Wooly Adelgid
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 10.3.1 above.

CWHmm1 and CWHxm, site series 12: Hw is considered to be preferred given this site series have a very limited occurrence in the plan area and small areas have been harvested historically.