



*Nakusp and Area Community Forest (2013) Inc.*

# FOREST STEWARDSHIP PLAN

## #761

December 20, 2018 to December 19, 2023

This Forest Stewardship Plan is applicable to  
NACFOR's forest planning and operations under:

**Community Forest Agreement #K2S**

within the

**Selkirk Natural Resource District**

Nakusp and Area Community Forest (2013) Inc.

P.O. Box 925

Nakusp, B.C.

V0G 1R0

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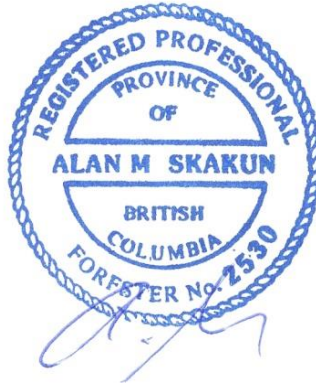
## 1. SIGNATURES

### Signature of the Person Required to Prepare this FSP:



Kathy Smith, President  
Nakusp and Area Community Forest (2013) Inc.  
Date: December 10, 2018

### Signature and Seal of Preparing Registered Professional Foresters:



Alan M. Skakun, RPF #2530  
Date: December 10, 2018



Frances H. Swan, RPF #4244  
Date: December 10, 2018

*"I certify that I have reviewed this document and, while I did not personally supervise the work described, I have determined that this work has been done to the standards expected of a member of the Association of British Columbia Forest Professionals."*

## 2. INTERPRETATION

### 2.1. Definitions under Acts and Regulations

Unless specifically indicated otherwise, terms used in this Forest Stewardship Plan (FSP) have the same meaning as they are defined in relevant British Columbia acts and regulations.

### 2.2. Definitions Specific to this FSP

**“NACFOR”** means Nakusp and Area Community Forest (2013) Inc., the holder of Community Forest Agreement #K2S, entered into pursuant to section 43.2 of the Forest Act, granting the exclusive right to harvest Crown timber, the right to manage Crown land, and the right to harvest, manage and charge fees for botanical forest products from Crown land within areas determined by the District Manager.

**“NACFOR Development Area”** means an area within the Forest Development Unit (FDU) of this FSP comprised of one or more cutblocks and associated roads planned together and which is assessed or evaluated cumulatively for the purposes of achieving landscape level (e.g., old + mature) and stand level (e.g., wildlife tree retention) requirements and objectives.

**“FRPA Value”** means one or more of the following:

- (a) soils
- (b) visual quality
- (c) timber
- (d) forage and associated plant communities
- (e) water
- (f) fish
- (g) wildlife
- (h) biodiversity
- (i) recreation resources
- (j) resource features
- (k) cultural heritage resources

**“Primary Forest Activities”** means one or more of the following:

- (a) timber harvesting;
- (b) road construction and deactivation.

**“Qualified Professional”** means a person deemed by NACFOR to be qualified, in terms of appropriate levels of education, training, and experience (skill sets), to conduct the activities described. Where the activities fall within the scope of practice of members of a professional regulatory body this person will be a Qualified Registered Professional.

**“Qualified Registered Professional”** means a person who:

- (a) in the opinion of NACFOR, has the appropriate education, training and experience to carry out the activity; and
- (b) is a member of, or licensed by, a regulatory body in British Columbia that has the legislated authority to regulate its members' performance of the activity.

**“Reasonable opportunity for review and comment”** means a written referral (either mailed or sent electronically) or an advertisement, including a link to a map, provided by NACFOR with a specified time (either 30 or 60 days, or another time period if agreed to with a First Nation or stakeholder or indicated in an advertisement) allowed for providing comments in order for the comments to be considered.

### 2.3. Objectives, Results, Strategies and Measures

The Forest and Range Practices Act (FRPA) requires that a FSP specify results or strategies in relation to objectives set by government and also specify measures related to invasive plants and natural range barriers. With regard to these requirements, the following interpretations have been used in the preparation of this FSP:

**“Objective”** means an objective that is set by government, in legally established land use plans, in regulation, or enabled through regulation, for managing and protecting forest and range values.

**“Result”** means a description of measureable or verifiable outcomes for a particular established objective and the situations or circumstances that determine where the outcomes will be applied.

**“Strategy”** means a description of measureable or verifiable steps or practices that will be carried out to meet a particular established objective, and the situations or circumstances that determine where the steps or practices will be applied.

**“Measure”** means a course of action taken or planned to achieve a particular purpose. With regard to FSPs, measures must be specified to (1) prevent the introduction or spread of invasive plants and (2) mitigate the effect of removing or rendering ineffective natural range barriers. Measures are intended to be reasonable and appropriate when considering what is likely to be effective and what is practicable.

**“Measureable”** means, with respect to results and strategies, able to be measured, quantified or calculated.

**“Verifiable”** means, with respect to results and strategies, able to be verified, proven, confirmed, authenticated or demonstrated.

### 2.4. Common Acronyms Used in this FSP

**BEC:** Biogeoclimatic Ecosystem Classification  
**CHR:** Cultural Heritage Resource  
**DDM:** Delegated Decision Maker  
**FDU:** Forest Development Unit  
**FPC:** Forest Practices Code of BC Act  
**FPPR:** Forest Planning and Practices Regulation  
**FRPA:** Forest and Range Practices Act  
**FRR:** Forest Recreation Regulation  
**FSP:** Forest Stewardship Plan  
**GAR:** Government Actions Regulation

**GIS:** Geographic Information System  
**GWM:** General Wildlife Measure  
**KBHLPO:** Kootenay-Boundary Higher Level Plan Order  
**LU:** Landscape Unit  
**MFLNRORD:** Ministry of Forests, Lands, Natural Resource Operations and Rural Development  
**NACFOR:** Nakusp and Area Community Forest (2013) Inc.  
**OGMA:** Old Growth Management Area  
**QP:** Qualified Professional  
**QRP:** Qualified Registered Professional  
**RMZ:** Riparian Management Zone  
**RP:** Road Permit  
**RPF:** Registered Professional Forester  
**RRZ:** Riparian Reserve Zone  
**SAR:** Species at Risk  
**SU:** Standards Unit  
**UWR:** Ungulate Winter Range  
**VIA:** Visual Impact Assessment  
**VQO:** Visual Quality Objective  
**WHA:** Wildlife Habitat Area  
**WHF:** Wildlife Habitat Feature  
**WTP:** Wildlife Tree Patch  
**WTRA:** Wildlife Tree Retention Area

### 3. REFERENCES

The following acts, regulations and higher level plan documents are relevant to FSPs and are specifically referenced in this FSP:

Forest Act

[http://www.bclaws.ca/EPLibraries/bclaws\\_new/document/ID/freeside/96157\\_00](http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/96157_00)

Forest and Range Practices Act (FRPA)

[http://www.bclaws.ca/Recon/document/ID/freeside/00\\_02069\\_01](http://www.bclaws.ca/Recon/document/ID/freeside/00_02069_01)

Forest Planning and Practices Regulation (FPPR)

[http://www.bclaws.ca/Recon/document/ID/freeside/14\\_2004](http://www.bclaws.ca/Recon/document/ID/freeside/14_2004)

Forest Recreation Regulation (FRR)

[http://www.bclaws.ca/Recon/document/ID/freeside/16\\_2004](http://www.bclaws.ca/Recon/document/ID/freeside/16_2004)

Government Actions Regulation (GAR)

[http://www.bclaws.ca/Recon/document/ID/freeside/582\\_2004](http://www.bclaws.ca/Recon/document/ID/freeside/582_2004)

Kootenay Boundary Higher Level Plan Order (KBHLPO)

<https://www.for.gov.bc.ca/tasb/slrp/plan50.html>

## 4. APPLICATION OF THE FSP

### 4.1. Term of the FSP

As approved by the Delegated Decision Maker (DDM) for the Minister of Forests, Lands, Natural Resource Operations and Rural Development, the term of this FSP is five years -- from **December 20, 2018** to **December 19, 2023**.

### 4.2. FSP Holder - Nakusp and Area Community Forest (2013) Inc.

The holder of this FSP is Nakusp and Area Community Forest (2013) Inc. (NACFOR). Detailed information about NACFOR, including its mission statement, strategic goals, corporate structure and governance, and various plans, reports and initiatives, can be found at the following website address: <http://nakuspcommunityforest.com>.

### 4.3. Purpose of the FSP and Public Engagement Outside of the FSP

The following two sections (4.3.1 & 4.3.2) are provided for context and the reader's information.

#### 4.3.1 Government Objectives and Public review

A FSP is a strategic-level plan that identifies how the holder of the plan will be consistent with government objectives for managing and protecting forest and range values through the results, strategies and measures specified in the plan. The FSP also provides a vehicle to solicit and consider the expectations of the public and stakeholders and to share information with First Nations regarding the use of Crown land and resources. FSPs generally do not show the locations and details of proposed forest development (e.g., cutblocks and roads). The legal content and public review and comment requirements for a FSP are specified within the Forest Planning and Practices Regulation (FPPR).

#### 4.3.2 NACFOR Development Areas and Public Engagement

Outside of the legally required FSP, NACFOR conducts operational planning at the 'Development Area' scale. Plans within Development Areas spatially identify proposed and existing forest development, access management information and silviculture regeneration/green-up status, as well as information about numerous resource features and values at a detailed scale. Although Development Area planning is not a part of the legal FSP, it is carried out to be consistent with the results, strategies and measures committed to within the FSP.

Development Area plans are a primary vehicle utilized by NACFOR to conduct detailed public engagement on forest development at an operational level. First Nations are consulted; stakeholders are provided with referrals; and planning information is made available to the public at annual open house meetings advertised in local newspapers, on the NACFOR website and on a drop-in basis at NACFOR's Nakusp office. As well, referrals are made to potentially affected forest licensees and planning information is exchanged as necessary for analysis



purposes in shared landscape units. All written comments received by NACFOR regarding Development Area planning and resource management are responded to in writing.

As a key tool for public engagement, the NACFOR website is utilized to inform the public and stakeholders on a wide spectrum of topics and issues related to the community forest, including:

- annual open house information meetings;
- on-going and future forest development planning and assessments;
- meetings and workshops on specific resource management issues;
- the locations of active operations;
- information for stakeholders and the public regarding active operations;
- community forest projects;
- information for contractors;
- timber products;
- the FSP, business plan, management plan and annual reports;
- environmental and safety management information;
- the NACFOR community Donations Program and Legacy Fund;
- forestry educational resources;
- community forest governance and contact information; and
- news releases relevant to the community forest.

#### 4.4. Application of the FSP

This FSP applies to the FSP Holder (NACFOR), including any of its contractors conducting planning activities and/or primary forest activities within the boundaries of any Forest Development Unit (FDU) identified in this FSP after the commencement date. Except where otherwise indicated, the results, strategies and measures identified within this FSP apply throughout the FDU(s) identified.

#### 4.5. Forest Development Unit (FDU) and Rationale

The key map in Figure 1 shows the general location of the FDU specified under this FSP. The FDU location is based on the boundaries of NACFOR's operating areas and the Crown land designated as Schedule 'B' lands and identified on the Exhibit 'A' map of Community Forest Agreement #K2S.

The FDU boundaries extend approximately 500 metres beyond and surrounding the above Exhibit 'A' areas. The rationale for this 'buffer' area is to provide for improved administrative efficiencies, for NACFOR and for government, by reducing the number of potential amendments to the FSP required to revise FDU boundaries for incidental reasons. An example of such situations is where a minor amount of road construction is required outside of the FDU for reasons of 'total chance', to minimize the overall amount of road construction, due to terrain stability concerns or to minimize potential impacts to resource values.

Where forest development is considered or planned within the above-noted FDU 'buffer' areas, NACFOR will enter into advance consultation with the applicable adjacent licensee or

agreement holder. Before NACFOR constructs a road or conducts timber harvesting within any of the above areas, the proposed development will be approved through an applicable authorization (e.g., road permit, cutting permit or Notice of Commencement).

A detailed, full-sized FDU Map has been submitted as an accompanying document and is a legal component of this FSP. The FDU map identifies the spatial features required by the FPPR (Section 14), where applicable and in effect on the date of submission of this FSP, as well as a number of additional resource and topographic features. Information shown on the FDU map includes:

- Ungulate Winter Ranges
- Scenic Areas
- Large Lakes, Rivers and Major Streams
- Community Watersheds
- Old Growth Management Areas
- Communities
- Private Land
- Parks
- Recreation Sites & Trails
- Highways and Major Roads
- Landscape Units

#### 4.5.1 Collaboration within Shared Management Units

Where NACFOR conducts forest development planning within the same management units as other forest licence or agreement holders, to ensure that potential cumulative impact(s) and consistency of results and strategies are considered, the following strategy will be utilized.

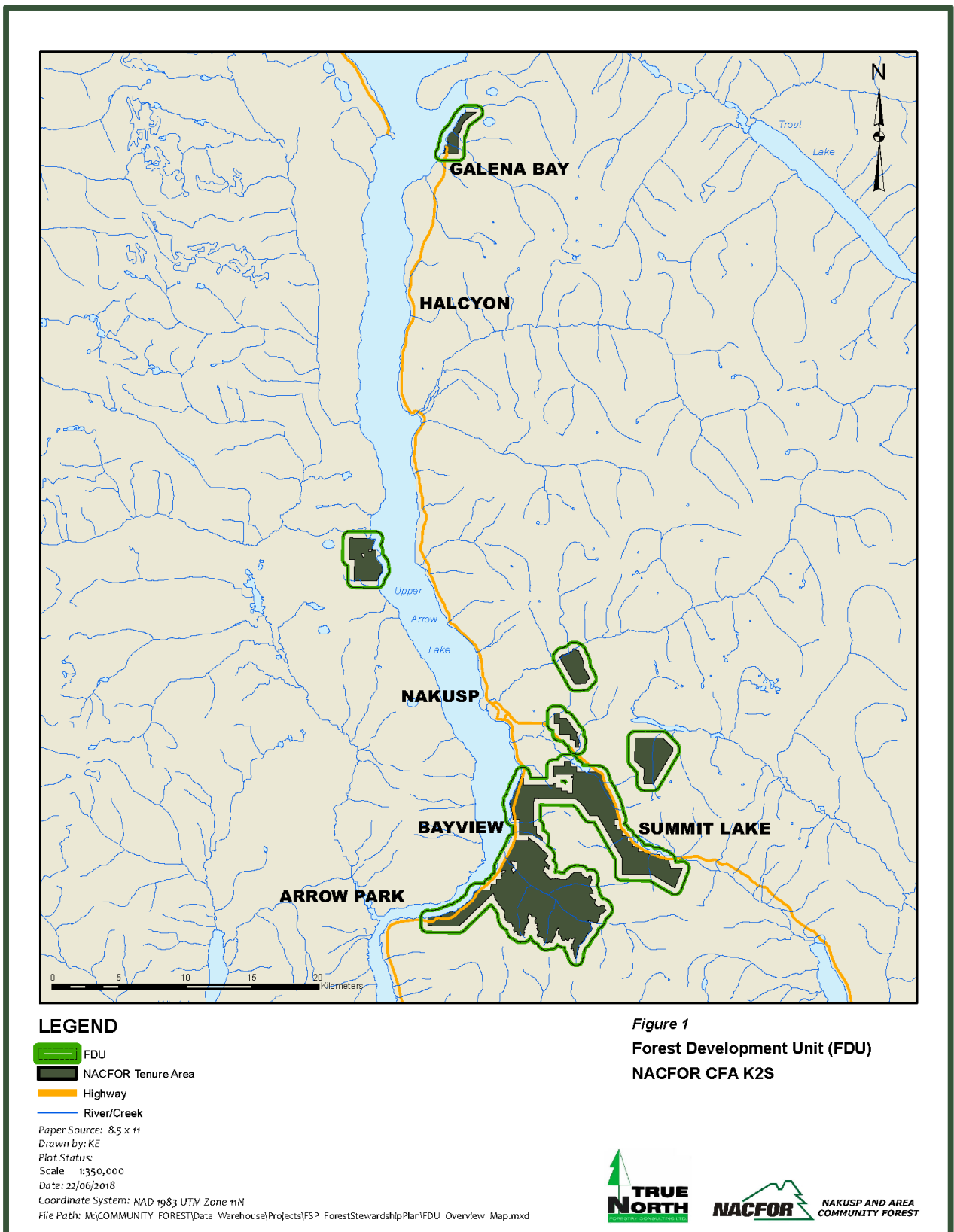
Results and Strategies
<p>1. <i>As a strategy, within shared management units - landscape units, community watersheds and ungulate winter ranges - where timber harvesting is planned, NACFOR will exchange information and collaborate<sup>1</sup> with each licence or agreement holder to ensure that the objectives<sup>2</sup> set by government for the area will be achieved in relation to the following applicable values:</i></p> <ul style="list-style-type: none"> <li>i. <i>Old and Mature Forest</i></li> <li>ii. <i>Connectivity Corridors</i></li> <li>iii. <i>Landscape-level Patch Size Distribution</i></li> <li>iv. <i>Ungulate Winter Range</i></li> <li>v. <i>Water in Community Watersheds</i></li> </ul> <p><sup>1</sup> <i>For the purposes of this section, information exchange and collaboration will be through direct correspondence and/or through utilization of the HLPO Reporting Suite coordinated &amp; maintained by the Selkirk Geospatial Research Centre, or its successor.</i></p> <p><sup>2</sup> <i>For the purposes of this section, "Objectives" means objectives set by government in legally established land use plans, in regulation, or enabled through regulation, for managing and protecting forest and range values.</i></p>

#### 4.6. Cutting Permits and Road Permits in Effect

In accordance with FPPR Sections 14(2)b and 14(3)(j), the cutting permits (CPs) and road permits (RPs) held by NACFOR, and in effect four months before the FSP submission, are listed in [Appendix 1](#).

#### 4.7. Declared Areas

In accordance with FPPR Section 14(4), the areas identified by NACFOR as declared areas are listed in [Appendix 2](#). As required by FPPR Section 14(4), the declared areas are within an FDU in effect and all activities and evaluations that are necessary in relation to inclusion of cutblocks and roads in the area have been completed.



**Figure 1. Forest Development Unit (FDU) General Location Map**

## 5. RESULTS AND STRATEGIES IN RELATION TO FOREST RESOURCE VALUES

### 5.1. Soils

**Legal References:** FPPR Sec. 5, Sec. 12.1 (1), Sec. 35 and Sec. 36

Results and Strategies
<p>1. In accordance with FPPR Section 12.1(1), for the objective for soils that is set out in Section 5 of the FPPR, NACFOR adopts, as a result or strategy, the following sections of the FPPR:</p> <ul style="list-style-type: none"> <li>a. Sec. 35 - Soil disturbance limits; and</li> <li>b. Sec. 36 - Permanent access structure limits.</li> </ul>

### 5.2. Timber

#### 5.2.1 Timber

**Legal References:** FPPR Sec. 6.0 and Sec. 12(8)

Information
<p>NACFOR is exempt from the requirement to prepare results and strategies for an objective set by government for timber in accordance with FPPR Sec. 12(8).</p> <p>Information on provincial objectives for timber management can be found in the document entitled: Provincial Timber Management Goals and Objectives accessible from the following website address: <a href="https://www2.gov.bc.ca/gov/content/industry/forestry/managing-our-forest-resources/silviculture/timber-management-goals">https://www2.gov.bc.ca/gov/content/industry/forestry/managing-our-forest-resources/silviculture/timber-management-goals</a></p>

#### 5.2.2 Enhanced Resource Development Zones - Timber

**Legal References:** KBHLPO Objective 7, FPPR Sections 12(4) to 12(6)

**Relates to:** KBHLPO Objective 4, FSP Sec. [5.3.1.3](#) and Sec. [5.3.1.6](#)

Information
<p>A significant portion of the NACFOR Slewiskin operating area and a very small portion within the NACFOR Fosthall operating area are within Enhanced Resource Development Zones - Timber, as designated on map 7.1 of the KBHLPO.</p> <p>KBHLPO Objective 7 allows for the successful regeneration (seedling height) of a cutblock within Enhanced Resource Development Zones - Timber to constitute green-up height for the purposes of determining when an adjacent area may be harvested, while KBHLPO Objective 4 (Green-up) specifies 2.5 metres as green-up height generally, except in certain situations. FPPR Sections 65(3)(a) and 65(3)(b)(ii) specify a green-up height requirement of 3 metres.</p> <p>FPPR Sections 12(4) to 12(6) allow that where a land use objective in a higher level plan conflicts with a regulation the objective in the higher level plan may prevail. In accordance with these FPPR sections, and in the interest of specifying a clear and consistent standard, NACFOR has specified a 2.5 metre green-up height to apply in <u>all</u> circumstances as articulated within the results or strategies specified in FSP Sections 5.2.2, 5.3.1.3 and 5.3.1.6. A detailed rationale for</p>

*the results and strategies in these sections is provided within the accompanying FSP Support Document.*

#### **Results and Strategies**

*For the objective for Enhanced Resource Development Zones - Timber (ERDZ-T) that is set out in Objective 7 of the KBHLPO, NACFOR specifies the following result:*

1. *Within each area identified on the ERDZ map 7.1 of the KBHLPO as ERDZ-T, NACFOR will conduct timber harvesting only if consistent with the practice requirements in Section 64 (Maximum cutblock size) and Section 65 (Harvesting adjacent to another cutblock) of the FPPR except that the height requirement in Section 65(3)(a) and Section 65(3)(b)(ii) is reduced from 3 metres to 2.5 metres.*

### **5.3. Biodiversity, Wildlife and Fish**

#### **5.3.1 Biodiversity**

##### **5.3.1.1 Biodiversity Emphasis**

**Legal References:** KBHLPO Objective 1

**Relates to:** KBHLPO Objective 2

#### **Results and Strategies**

*For the objective for Biodiversity Emphasis that is set out in Objective 1 of the KBHLPO, NACFOR specifies the following result:*

1. *NACFOR will construct a road or conduct timber harvesting only where it is consistent with the 'biodiversity emphasis' assigned in Objective 1 of the KBHLPO as applied in the subsequent KBHLPO Objective 2 - Old and Mature Forest.*

##### **5.3.1.2 Old and Mature Forest**

**Legal References:** KBHLPO Objective 2

#### **Information**

*For all of the FDUs of this FSP the requirements of Objective 2 of the KBHLPO for old forest are considered to be met through the spatially identified Old Growth Management Areas (OGMA's) (non-legal).*

#### **Results and Strategies**

*For the objective for Old and Mature Forest that is set out in Objective 2 of the KBHLPO, NACFOR will comply with Objective 2 and the following additional strategies are specified:*

1. *With respect to the old forest requirements, within the areas that have been spatially identified as Old Growth Management Areas (OGMA's) (non-legal) to achieve the percentage retention requirements of Objective 2 for old forest, NACFOR will only construct a road or conduct timber harvesting:*

- a. *for the establishment of tail holds or guy line tiebacks;*
- b. *to address danger trees<sup>1</sup> identified within an OGMA which are a hazard to adjacent primary forest activities or silviculture activities;*
- c. *to remove damaged timber where an OGMA is rendered ineffective<sup>2</sup> by natural damaging agents including wind, fire, or forest health factors;*
- d. *where there is no other practicable location to construct a road, or where another location would result in greater risk to one or more FRPA Values; or*
- e. *where NACFOR identifies one or more replacement OGMA's that provide equal or greater biological value.*

*Where timber is harvested from an OGMA for any of the circumstances described in sections 1c to 1e above, a Registered Professional Forester (RPF) will document the decision within a Site Plan or associated document. Additionally, where the harvested area is mappable (greater than 0.25 hectares), a RPF will prepare a written rationale in, or retained with, the Site Plan, indicating the reasons for harvesting timber from the OGMA and spatially identifying one or more replacement OGMA areas of at least the same size that provide equal or greater biological value consistent with the requirements of Objective 2 (5) of the KBHLPO, including the factors identified in footnote k. Changes to the boundaries or locations of OGMAs will be updated and tracked in a NACFOR geographic information system (GIS) and, upon request, digital information will be provided to the MFLNRORD and to forest licensees if the change is within a shared Landscape Unit.*

2. *With respect to the mature-plus-old requirements, where required targets are not met, as determined by spatial or aspatial analysis<sup>3</sup>, NACFOR will construct a road or conduct timber harvesting only where a RPF prepares a rationale that identifies a recruitment strategy to achieve the targets consistent with the requirements of Objective 2 (5) of the KBHLPO, including the factors identified in footnote k.*

<sup>1</sup>. *For the purposes of this section, 'danger tree' means any tree (regardless of its size) that is a hazard to people due to:*

- a. *its location or lean;*
- b. *its physical damage;*
- c. *overhead conditions;*
- d. *deterioration of limbs, stem or root system; or*
- e. *any combination of a to d above.*

<sup>2</sup>. *For the purposes of this section, 'rendered ineffective' means, in the opinion of a RPF, damaged to a degree that the OGMA no longer has the biological value of mature or old forest considering the factors identified in footnote k of KBHLPO Objective 2 (5).*

<sup>3</sup>. *For the purposes of this section, 'aspatial analysis' means, through GIS analysis and reporting tables, quantifying the percentages of existing forest area by seral stage distribution within the biogeoclimatic units of a landscape unit, using the definitions of mature and old forest as defined within KBHLPO Objective 2. In landscape units shared with forest licensees, analyses will include other licensees' existing and authorized timber harvesting. In conducting analysis NACFOR will utilize the HLPO Reporting Suite application maintained by the Selkirk Geospatial Research Centre, or its successor.*

### 5.3.1.3 Green-up

**Legal References:** KBHLPO Objective 4, FPPR Sections 12(4) to 12(6)

**Relates to:** KBHLPO Objective 7, FSP Sec. [5.2.2](#) and Sec. [5.3.1.6](#)

Results and Strategies
<p><i>For the objective for Green-up that is set out in Objective 4 of the KBHLPO, NACFOR specifies the following result:</i></p> <ol style="list-style-type: none"><li><i>1. NACFOR will conduct timber harvesting only if consistent with the practice requirements in Section 64 (Maximum cutblock size) and Section 65 (Harvesting adjacent to another cutblock) of the FPPR except that the height requirement in Section 65(3)(a) and Section 65(3)(b)(ii) is reduced from 3 metres to 2.5 metres.</i></li></ol>

### 5.3.1.4 Fire Maintained Ecosystems

**Legal References:** KBHLPO Objective 8

Information
<p><i>Objective 8 of the KBHLPO relates to fire maintained ecosystems over an area as described by Map 8.1. This map has not been made available or legally established through the KBHLPO as of the commencement date of this FSP and therefore Objective 8 is not in effect.</i></p> <p><i>Further, there are no areas classified as shrub land, open forest or managed forest ecosystems in NDT 4 within the FDU of this FSP.</i></p>

### 5.3.1.5 Water, Fish, Wildlife and Biodiversity within Riparian Areas

**Legal References:** FPPR Sec. 8, Sec. 12.1(2) and Sec. 12(3)

Information
<p><i>With regard to FPPR Section 12(3) (retention of trees in a riparian management zone (RMZ)), and the strategies below, the following is provided as guidance to prescribing QRPs:</i></p> <ol style="list-style-type: none"><li><i>1. For streams, wetlands or lakes that have a Riparian Reserve Zone (RRZ), the principal management objective of the RMZ will be to maintain the integrity of the RRZ, especially reducing windthrow hazard in the RRZ. A secondary objective will be to protect important wildlife and biodiversity values in the RMZ.</i></li><li><i>2. For streams, wetlands or lakes with a RMZ and no RRZ, the principal management objective of the RMZ will be to protect important values of water quality, wildlife habitat, fish habitat and stream bank and channel stability.</i></li></ol>

Results and Strategies
<ol style="list-style-type: none"><li><i>1. In accordance with FPPR Section 12.1(2), for the objective for Water, Fish, Wildlife and Biodiversity within Riparian Areas that is set out in Section 8 of the FPPR, NACFOR will comply with Sections 47 to 51, 52(2) (riparian classes and restrictions) and Section 53 (temperature sensitive streams)<sup>1</sup> of the FPPR.</i></li><li><i>2. With respect to FPPR Section 12(3) - retention of trees in a riparian management zone (RMZ), as defined in FPPR Sections 47 to 49, - NACFOR specifies the following strategies</i></li></ol>



(#2a and #2c to #2f) and result (#2b):

a. At the planning stage for timber harvesting, a QRP will conduct and document an assessment of the RMZs of streams, wetlands and lakes within or adjacent to planned cutblocks and establish site-specific tree retention specifications and measures to prevent or mitigate unavoidable adverse impacts to the RRZ (if present) and to stream channels by assessing the following factors:

- safety issues
- windthrow risk, based on tree, stand, soil and topographic characteristics, prevailing winds and options available to reduce risk
- stream channel integrity, stream bank stability and erosion potential
- forest health factors
- fish and wildlife habitat
- water quality
- licensed consumptive water use and intake locations
- presence of standing live or dead trees with wildlife habitat value
- retention of understory vegetation and non-merchantable trees
- shade requirements for streams
- vegetation management and post-harvest silviculture treatments
- coarse woody debris requirements
- hydrological and terrain stability concerns and/or recommendations from related assessments
- visual quality
- timber objectives and operational constraints

b. At the completion of harvesting, tree retention levels in RMZs within a cutblock, as prescribed by a QRP in a Site Plan or associated document, will:

i. be as specified in the table below and retain some area, individual trees or groups of trees in every RMZ, based on the factors assessed in 2a;

Riparian Class	% of the Pre-Harvest Stems Per Hectare to be Retained <sup>2</sup>
S1-A stream	20-100%
S1-B stream	20-100%
S2 stream	20-100%
S3 stream	20-100%
S4 stream	10-100%
S5 stream	10-100%
S6 stream	>0-100%
All classes of wetlands or lakes	10-100%

ii. be either regularly distributed or irregularly distributed as single trees or groups of trees; and

iii. be of the number, distribution, species, size(s) and characteristics as specified by the QRP.

c. In situations where tree retention occurs in part or all of a RMZ, and where the trees or area are considered by a QRP to be suitable based on the factors assessed in 2a

*above, the trees or area in the RMZ may contribute to stand level wildlife tree retention targets (WTRAs). These decisions will be documented in a Site Plan or associated document.*

- d. In conducting timber harvesting, the direction of falling and yarding/skidding will be away from streams, wetlands and lakes, or parallel to streams, unless a safety hazard dictates otherwise or it is not practicable. For streams, where falling and yarding away is not practicable, directional bridging will be utilized prior to cross-stream yarding and introduced slash and debris will be removed from the wetted perimeter of the stream concurrent with harvesting.*
- e. To maintain stream bank and stream channel integrity on all streams that do not have a riparian reserve zone a minimum 5 metre machine-free zone will be established along both sides of streams within harvest areas where ground-based equipment will operate, with the exception of designated / stream crossing trails.*
- f. Primary forest activities will minimize new coarse woody debris and sediment inputs into streams to the extent practicable.*

<sup>1</sup> For information, with regard to FPPR Section 53, there are no temperature sensitive streams designated within any portions of the FDU of this FSP as of the commencement date of the FSP

<sup>2</sup> Based on all stems  $\geq 12.5$  cm. dbh within the RMZ area.

#### 5.3.1.6 Wildlife and Biodiversity — Landscape Level

**Legal References:** FPPR Sec. 9, Sec. 12.1(3), Sec. 64 and Sec. 65

**Relates to:** FSP Sec. [5.2.2](#), and Sec. [5.3.1.3](#), KBHLPO Objectives 4 and 7

Results and Strategies
<p>1. <i>In accordance with FPPR Section 12.1(3), as a result for the objective for wildlife and biodiversity at the landscape level that is set out in Section 9 of the FPPR, NACFOR will comply with Section 64 (Maximum cutblock size) and Section 65 (Harvesting adjacent to another cutblock) of the FPPR except that the height requirement in Section 65(3)(a) and Section 65(3)(b)(ii) is reduced from 3 metres to 2.5 metres.</i></p>

#### 5.3.1.7 Wildlife and Biodiversity — Stand Level

**Legal References:** FPPR Sec. 9.1, Sec. 12.5 (1), Sec. 12.5 (2), Sec. 66 and Sec. 67

**Relates to:** FSP [Appendix 3](#)

Results and Strategies
<p><i>In accordance with FPPR Sections 12.5(1) and 12.5(2), for the objective for wildlife and biodiversity at the stand level that is set out in Section 9.1 of the FPPR NACFOR specifies the following as alternate results and strategies for Sections 66 (Wildlife tree retention) and 67 (Restriction on harvesting) of the FPPR:</i></p> <p>1. <i>As a strategy, at the planning stage for timber harvesting and prior to NACFOR conducting timber harvesting, a QRP will establish Wildlife Tree Retention Areas (WTRAs), considering the 'Attributes of High-Value Wildlife Tree Retention Strategies' in Appendix 3. The QRP will</i></p>

*identify and map the WTRA areas, as well as document the attributes identified, in a Site Plan or associated document.*

2. *As a result, at any point in time following the completion of harvesting of a Development Area, an area equivalent to a minimum of 7% of all of the cutblock areas will be retained in WTRAs, and the following additional strategies are specified:*

- a. *WTRA percent retention will be calculated as follows:*

WTRA % Calculation	
$\text{WTRA \%} = \frac{\text{WTRA Area of the Cutblock (Hectares)}}{\text{NAR}^1 + \text{PAS}^2 \text{ (Hectares)}} \times 100$	
<sup>1</sup> . "NAR" = Net Area to Reforest including areas of TAS <sup>3</sup> that will be rehabilitated/reforested	
<sup>2</sup> . "PAS" = Permanent Access Structures (e.g., roads, landings) within the cutblock boundary	
<sup>3</sup> . "TAS" = Temporary Access Structures to be reforested	
<u>Note:</u> Other areas that may be within the boundary of the total cutblock area (e.g., non-productive, non-harvested, reserves, etc.) are not included in this calculation.	

- b. *the minimum area in WTRA(s) will be calculated at the Development Area level;*
    - c. *a WTRA may relate to one or more cutblocks of the Development Area;*
    - d. *areas of individual trees and clumps or patches (disbursed retention) which are less than 0.25 ha in size can be used to contribute to the required WTRA percentage on the basis of the total basal area of the trees retained divided by the average basal area of the associated forest type;*
    - e. *some area, individual trees, clump(s) or patch(es) will be retained in every cutblock to contribute towards the WTRA requirement and, subject to 2f below, the minimum area retained in any individual cutblock will be 3.5% of the cutblock area;*
    - f. *the minimum area retained in any individual cutblock may be less than 3.5%, but will be greater than 0%, if the cutblock is less than 5 hectares in size; and*
    - g. *subject to Strategy 3 below, WTRAs will be retained at least until trees in the net area to be reforested (NAR) have developed attributes that are consistent with a mature seral condition.*
3. *As a result, timber within a WTRA or Wildlife Tree Patch (WTP) will not be harvested, except for one or more of the following reasons and subject to Strategy 4 below:*
  - a. *to facilitate harvesting of a cutblock - for tail holds, guy line tiebacks, designated skid trails or yarding corridors;*
  - b. *to address safety hazards;*
  - c. *where timber is damaged as a result of wind, fire or forest health factors and, in the opinion of a QRP, the WTRA or WTP is rendered ineffective<sup>1</sup>;*
  - d. *where windthrown trees are a potential source to cause epidemic insect spread<sup>2</sup>;*
  - e. *where timber is highly susceptible<sup>3</sup> to insect damage; and/or*
  - f. *to facilitate road construction or address operational constraints to cable yarding, where there is no other practicable option, or where another option would result in greater risk to one or more FRPA Values.*

4. As a strategy, where timber is harvested in an established WTRA or WTP, and the harvest area is mappable (greater than 0.25 hectares), a QRP will identify one or more replacement WTRAs that provide an area and habitat that is at least equivalent<sup>5</sup> to the portion of the WTRA or WTP from which timber is being harvested. The QRP will document and map the replacement area in a Site Plan or associated document.

<sup>1</sup> For the purposes of this section, 'rendered ineffective' means, in the opinion of a QRP, as documented in a Site Plan or associated document, damaged to a degree that the WTRA or WTP no longer has attributes consistent with a mature or old seral condition and considering the original intent of the WTRA or WTP (if known).

<sup>2</sup> For the purposes of this section, 'a potential source to cause epidemic insect spread' means situations where windthrown trees are:

- spruce or Douglas-fir species, which have been down for 3 years or less; and
- in proximity (within 4 km.) to susceptible mature stands, defined as a timber type where:
  - ≥20% of the stems/ha. or basal area (≥12.5 cm. dbh) is spruce ≥100 years old, in the case of spruce blowdown; or
  - ≥20% of the stems/ha. or basal area (≥12.5 cm. dbh) is Douglas-fir ≥80 years old, in the case of Douglas-fir blowdown.

<sup>3</sup> For the purposes of this section, 'highly susceptible' means a susceptibility hazard class of high or very high as indicated by a field assessment or on MFLNRORD susceptibility mapping and/or as defined within a MFLNRORD Forest Health Strategy and where the timber is within 2 kilometres of a currently infested<sup>4</sup> area.

<sup>4</sup> For the purposes of this section, 'infested' means a live infestation level greater than 30% of the stems per hectare of the stand, as indicated by a field assessment.

<sup>5</sup> For the purposes of this section, 'equivalent' means equal in area and having attributes consistent with a mature or old seral condition and/or attributes as described in Appendix 3.

## 5.3.2 Wildlife

### 5.3.2.1 Grizzly Bear Habitat and Connectivity Corridors

**Legal References:** KBHLPO Objective 5

**Relates to:** FSP Sec. [5.3.2.4](#) and Sec. [5.3.1.2](#)

Information
Objective 5 of the KBHLPO specifies maintenance of mature and/or old forest adjacent to important grizzly bear habitat as shown on a map (Map 5.1). Although this mapping has not been completed or made available as of the commencement date of this FSP and therefore the grizzly bear habitat portion of this objective is not in effect, NACFOR has specified a strategy for maintenance of grizzly bear habitat. Objective 5 also specifies maintenance of mature and/or old forest within identified (mapped) connectivity corridors for regional ecosystem connectivity.

Results and Strategies
<p>1. As a strategy for the maintenance of important grizzly bear habitat, where important habitat (e.g., avalanche tracks, denning sites, etc.) is identified within an area planned for road construction or timber harvesting, NACFOR will undertake the following before constructing a road or conducting timber harvesting:</p> <ul style="list-style-type: none"> <li>a. follow existing management strategies and measures<sup>1</sup>; and/or</li> <li>b. refer the area to a QP for a field assessment; and</li> </ul>

<p>c. <i>implement existing management strategies and measures and/or QP recommendations, including incorporating these into site plans or associated documents.</i></p> <p>2. <i>As a strategy for the portion of KBHLPO Objective 5 related to connectivity corridors, NACFOR will comply with Objective 5 utilizing connectivity corridor mapping for the purposes of allocating mature-plus-old targets as specified in KBHLPO Objective 2 (Old and Mature Forest).</i></p> <p><sup>1</sup> <i>For the purposes of this section, 'existing management strategies and measures' are those identified in guidance documents such as: the Ministry of Environment's 'Accounts and Measures for Managing Identified Wildlife' guide (<a href="http://www.env.gov.bc.ca/wld/frpa/iwms/accounts.html#second">http://www.env.gov.bc.ca/wld/frpa/iwms/accounts.html#second</a>) and/or existing reports prepared by QPs.</i></p>
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### 5.3.2.2 Caribou

**Legal References:** KBHLPO Objective 3, GAR Sec. 9 to Sec. 13

**Relates to:** FSP Sec. [5.3.2.4](#)

Information
<i>The objective for Caribou that is set out in Objective 3 of the KBHLPO is not in effect as this objective was cancelled by Ministerial (variance) Order 09, on January 8<sup>th</sup>, 2009. The requirements for habitat retention for Mountain Caribou are now specified within GAR orders establishing ungulate winter ranges and general wildlife measures. Results and strategies related to ungulate winter range, including those related to Mountain Caribou, are specified in FSP Section 5.3.2.4.</i>

### 5.3.2.3 Objectives Set by Government for Wildlife

**Legal References:** FPPR Sec. 7 and GAR Sec. 9 to Sec. 13

**Relates to:** FSP Sec. [5.3.2.4](#)

Information
<i>Per FPPR Section 7(3), persons required to prepare a FSP are exempt from the obligation of specifying a result or strategy in relation to the objective set by government for wildlife in FPPR Section 7(1) if the objective is addressed by objectives established in relation to Wildlife Habitat Areas (WHAs), Ungulate Winter Ranges (UWRs), General Wildlife Measures (GWMs) or Wildlife Habitat Features (WHFs), or if an order given under the GAR Sections 9 to 13 specifically includes an exemption. These circumstances apply to the FDU of this FSP. See FSP Section 5.3.2.4 for results and strategies regarding the conservation of wildlife habitat.</i>

### 5.3.2.4 Species at Risk, Regionally Important Wildlife, Ungulate Winter Range, Wildlife Habitat Areas and Wildlife Habitat Features

**Legal References:** KBHLPO Objectives 3 & 5, FPPR Sec. 7 and GAR Sec. 9 to Sec. 13

**Relates to:** FSP [Appendix 4](#)

Information
<i>Notices given under FPPR Section 7(2) specify the amount, distribution and attributes of wildlife</i>

*habitat required for identified species at risk (SAR), regionally important wildlife and ungulate species. Orders under the GAR Sections 9 to 13 establish WHAs, UWRs and WHFs and specify GWMs for specific species. In many cases the newer GAR orders establishing WHAs and GWMs have addressed and replaced the requirements of earlier FPPR Section 7(2) notices.*

*Section 7(2) Notices and GAR Orders in effect and applicable to the FDU of this FSP are listed in Appendix 4 of this FSP, including links to the individual orders and boundary maps, where applicable. The locations of established UWRs are shown on the FDU map of this FSP and on the maps accompanying the respective GAR orders (links in Appendix 4). As of the commencement date of this FSP, no WHAs have been established within any portions of the FDU of this FSP.*

*There are three species at risk (SAR) identified in a Section 7(2) Notice for the Arrow/Boundary area as follows: Coeur d'Alene Salamander, Flammulated Owl and Interior Western Screech Owl.*

*In addition to the SAR identified in the above Section 7(2) Notice, NACFOR utilizes the Ministry of Environment B.C. Conservation Data Centre (CDC) database to assist with the identification of, and management strategies for, species designated as Red Listed (at risk of being lost - extirpated, endangered or threatened) or Blue Listed (of special concern):*

*<https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/conservation-data-centre>*

*With regard to UWR, the GAR Orders establishing UWRs and specifying General Wildlife Measures relevant to this FSP are: U-4-001 - for Elk, Mule Deer, White-tailed Deer and Moose and U-4-014 - for Mountain Caribou (see Appendix 4).*

*As of the commencement date of this FSP, a GAR Order is in effect which identifies 14 Wildlife Habitat Features (WHFs) and is applicable to the FDU of this FSP (see Appendix 4).*

## **Results and Strategies**

- 1. As a result, NACFOR will construct a road or conduct timber harvesting only where it is consistent with the requirements of the applicable Notices under FPPR Section 7(2) and Orders under the GAR Sections 9 to 13.*
- 2. With regard to SAR, UWRs, WHAs and WHFs, NACFOR specifies the following additional strategies:*
  - a. site plans and/or associated documents prepared by a QRP for each cutblock will describe how timber harvesting and road construction are consistent with the requirements of any Notices related to SAR and Orders related to any WHAs, UWRs and WHFs relevant to the proposed forest development;*
  - b. contractors who conduct forest development planning and layout activities in the field will be confirmed to have SAR awareness training, including information regarding species identification, habitat attributes, best management practices and reporting;*
  - c. contractors who conduct primary forest activities will be confirmed to have SAR awareness training, and/or be provided with information regarding species identification and notification requirements for SAR;*

- d. where a SAR is identified in relation to planned forest development activities NACFOR will report the observed occurrence through the B.C. Conservation Data Centre (CDC) and undertake one or more of the following options:
  - i. follow existing management strategies and measures<sup>1</sup>;
  - ii. include the area in a WTRA, RRZ, or other reserve area; and/or
  - iii. refer the area to a QRP for a professional assessment and implement the resulting recommendations;
- e. where a SAR is identified in relation to active primary forest activities NACFOR will cease or modify operations to the extent necessary to protect the SAR and associated habitat and undertake one or more of the options described in strategy 2d; and
- f. contractors will be confirmed to have WHF awareness training and be provided with information regarding wildlife habitat features identification, attributes, and reporting.

<sup>1</sup>. For the purposes of this section, 'existing management strategies and measures' are those identified in guidance documents such as: the Ministry of Environment's 'Accounts and Measures for Managing Identified Wildlife' guide (<http://www.env.gov.bc.ca/wld/frpa/iwms/accounts.html#second>) and/or existing reports prepared by QRPs.

### 5.3.3 Fish Habitat in Fisheries Sensitive Watersheds

**Legal References:** FPPR Sec. 8.1 and GAR Sec. 14(1) and Sec. 14(2)

Information
<i>As of the commencement date of this FSP, there are no designated fisheries sensitive watersheds within the FDU of this FSP. As a result, Section 8.1 of the FPPR does not apply to this FSP.</i>

## 5.4. Water for Consumptive Use

### 5.4.1 Water in Community Watersheds

**Legal References:** FPPR Sec. 8.2, Sec. 59 to Sec. 63, Sec. 84

**Relates to:** FSP [Appendix 5](#)

Information
<i>Designated community watersheds within the FDU of this FSP and in effect at the time of the commencement of this FSP are listed in Appendix 5 and are shown on the FDU Map.</i>

Results and Strategies
<ol style="list-style-type: none"> <li>1. For the objective for water in community watersheds that is set out in Section 8.2 of the FPPR, NACFOR adopts, as a result or strategy, Sections 59 to 63 of the FPPR, and the following additional strategies are specified:</li> <li>2. Prior to constructing a road or conducting timber harvesting within a community watershed, NACFOR will ensure:           <ol style="list-style-type: none"> <li>a. a hydrologic assessment<sup>1</sup>, including consideration of cumulative effects<sup>2</sup>, is carried</li> </ol> </li> </ol>

<p>out by a QRP;</p> <p>b. the design of planned cutblocks and roads and/or prescribed measures are consistent with the recommendations of the hydrologic assessment; and</p> <p>c. while primary forest activities are being conducted, a Qualified Professional will monitor, including documentation in inspection forms, to ensure that all activities are conducted in accordance with the recommendations of the hydrologic assessment.</p> <p>3. At the planning and design stage for road construction and timber harvesting, NACFOR will provide a referral letter to the water licensee, which includes a description of the planned activities and provides a reasonable opportunity for review and comment.</p> <p>4. At least 48 hours before the commencement of any road construction or deactivation in a community watershed, NACFOR will provide written notification to the water licensee.</p> <p><sup>1.</sup> For the purposes of this section, a ‘hydrologic assessment’ is defined as an analysis, conducted by a QRP, of existing and potential forest development related effects on water and water-related resources conducted at the site or watershed level and includes, as determined by the QRP, the following elements, if considered important by the QRP:</p> <ul style="list-style-type: none"> <li>• a risk analysis assessing the risk of potential impacts to elements at risk;</li> <li>• an overview of the watershed including creek morphology;</li> <li>• a watershed snapshot or report card update (a GIS analysis);</li> <li>• a review of cumulative effects of past and proposed activities;</li> <li>• specific recommendations for hazard mitigation; and/or</li> <li>• a drainage plan for roads and other related development.</li> </ul> <p><sup>2.</sup> For the purposes of this section, ‘cumulative effects’ means, in relation to forest hydrology, the effects (e.g., changes to quantity &amp; timing of water flow, water quality, stream channel conditions and sensitivity, redirected runoff, etc.) caused by the combined results of past, current and future forest development by all forest agreement holders, as well as other known activities, within a watershed or development area.</p>
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## 5.4.2 Consumptive Use Streams

**Legal References:** KBHLPO Objective 6 and FPPR Sec. 59 & Sec. 60(1)

**Relates to:** FSP Sec. [5.3.1.5](#)

Results and Strategies
<p>1. For the objective for consumptive use streams set out in Objective 6 of the KBHLPO, as a result or strategy, NACFOR will comply with Objective 6 and, as additional strategies, NACFOR will, at the planning and design stage for road construction and timber harvesting:</p> <p>a. provide a referral letter to licensed domestic water users<sup>1</sup>, or their designated group representative, which includes a description of the planned activities and provides a reasonable opportunity for review and comment;</p> <p>b. as documented in a Site Plan or associated document, for each stream where the streamside management zone of Objective 6 applies:</p> <p>i. ensure specific measures are prescribed by a QRP to safeguard water licenced for human consumption; and</p> <p>ii. plan and design timber harvesting in accordance with the strategies for</p>



RMZs, as specified in Section 5.3.1.5 of this FSP.

2. As a strategy, exposed soils on cut and fill slopes along new roads will be grass seeded and exposed soils on new landings and rehabilitated areas will be grass seeded and/or planted with trees. Exposed soils are to be grass seeded concurrent with, or during the first spring or fall after the completion of, road construction or rehabilitation activities and no later than 12 months following mineral soil exposure. Where any contiguous grass seeded areas greater than 0.1 hectare fail to establish (germinate) with grass after one growing season, these areas will be reseeded within 12 months following the first growing season. Grass seeding will utilize high quality seed (a mix recommended by a MFLNRORD range specialist, if available; otherwise Canada Common #1 Forage mix or better grade) to ensure that the introduction of invasive plant seed is minimized.
3. As a result or strategy, NACFOR will comply with Section 59 (Protecting water quality) and Section 60(1) (Licenced waterworks) of the FPPR.

<sup>1</sup>. For the purposes of this section, 'licensed domestic water users' are those listed on the B.C. Government Water Licences Query (or successor) website as holding a licence for domestic use and where the licenced intake is being utilized.

## 5.5. Visual Quality - Scenic Areas and Visual Quality Objectives

**Legal References:** FPPR Sec. 9.2, KBHLPO Objective 9, GAR Sec. 7(1) and Sec. 7(2)

Information
<p>The objective set by government for visual quality in FPPR Section 9.2 establishes default objectives for visual quality in Scenic Areas where Visual Quality Objectives (VQOs) have not otherwise been legally established. Because VQOs have been legally established within the FDU of this FSP, FPPR Section 9.2 does not apply.</p> <p>With regard to KBHLPO Objective 9, where Scenic Areas or VQOs are established by Section 7 GAR Orders or other legal orders, these cancel and replace those established previously by the KBHLPO. Therefore, Objective 9 of the KBHLPO also does not apply.</p> <p>The following are the orders that legally establish Scenic Areas and VQOs for the FDU within this FSP, and which are in effect on the commencement date of this FSP:</p> <ol style="list-style-type: none"> <li>1. <b>Scenic Areas Established by:</b> GAR Sec. 7(1) Order by District Manager, Arrow Boundary Forest District, Dec. 31, 2005.</li> <li>2. <b>VQOs Established by:</b> GAR Sec. 7(2) Order by the District Manager, Arrow Boundary Forest District, Dec. 31, 2005.</li> </ol> <p>The accompanying FDU map shows the locations of Scenic Areas and corresponding VQOs applicable to the FDU of this FSP.</p>

Results and Strategies
<p>For the objectives for visual quality that are established through the applicable Section 7(2) GAR Orders, NACFOR specifies the following result (#1) and strategies (#2 to #4):</p> <ol style="list-style-type: none"> <li>1. As a result, where NACFOR constructs a road or conducts timber harvesting, the completed road construction and/or timber harvesting will achieve the VQO established for the area.</li> </ol>

2. *At the planning stage for road construction and timber harvesting, NACFOR will complete a Visual Impact Assessment which assesses whether the proposed activities will achieve established VQOs, using the categories of visually altered forest landscape as defined in FPPR Section 1.1, by:*
  - a. *assessing the proposed visual alteration from one or more significant public viewpoints, located on water or land, that provides a viewing opportunity and has relevance to the landscape being assessed; and*
  - b. *utilizing the guidance for predicting VQOs in Tables 3 and 4 of the FPC Visual Impact Assessment Guidebook, Second edition, January 2001 to estimate the likely resulting VQO using the descriptive categories of visually altered forest landscape as defined in FPPR Section 1.1.*
3. *Where road construction and/or timber harvesting is planned and it is not practicable to achieve the established VQO, given the circumstances or conditions of a particular area, prior to constructing a road or conducting timber harvesting, NACFOR will apply for an exemption from the requirement under Section 12(7) of the FPPR.*

## 5.6. Cultural Heritage Resources

**Legal References:** FPPR Sec. 10

Results and Strategies
<p><i>For the objective to conserve or protect cultural heritage resources<sup>1</sup> (CHRs) that is set out in Section 10 of the FPPR, the strategies<sup>2</sup> specified by NACFOR are:</i></p> <ol style="list-style-type: none"> <li>1. <i>At least 30 days before NACFOR constructs a road or conducts timber harvesting within the asserted traditional territory of a First Nation<sup>3</sup>, NACFOR will provide to the First Nation a written request to share information, providing a reasonable opportunity for review and comment, and including:</i> <ol style="list-style-type: none"> <li>a. <i>a description and a map of the forest development activities planned;</i></li> <li>b. <i>a request for comments and information on the type, location, and extent of any traditional use that is of continuing importance to the First Nation; and</i></li> <li>c. <i>an offer to meet with the First Nation.</i></li> </ol> </li> <li>2. <i>Where a meeting takes place, the purpose of the meeting will be to:</i> <ol style="list-style-type: none"> <li>a. <i>review the available information from NACFOR and the First Nation;</i></li> <li>b. <i>determine areas of concern that may result from forest management activities when compared with First Nation interests or activities;</i></li> <li>c. <i>identify if an assessment (e.g., Preliminary Field Reconnaissance, Archaeological Assessment and/or Cultural Heritage Assessment) is warranted;</i></li> <li>d. <i>identify management activities and measures that meet the needs of both NACFOR and the First Nation; and</i></li> <li>e. <i>evaluate the potential for impacts to CHRs considering the following factors (as modified from FPPR Schedule 1, Sec.4):</i> <ol style="list-style-type: none"> <li>i. <i>the relative value or importance of a particular CHR to a traditional use by</i></li> </ol> </li> </ol> </li> </ol>

	<p><i>an aboriginal people;</i></p> <p>ii. <i>the relative abundance or scarcity of a CHR that is the focus of a traditional use;</i></p> <p>iii. <i>the historical extent of a traditional use of a CHR;</i></p> <p>iv. <i>the impact on timber harvesting rights of conserving or protecting a CHR;</i> <i>and</i></p> <p>v. <i>options for mitigating impacts that a forest practice might have on a CHR.</i></p> <p>3. <i>In the event that NACFOR receives comments in response to a request to share information but a meeting does not occur, NACFOR will complete an evaluation, including those steps in Strategy 2 which are applicable, and will communicate the outcome of the evaluation to the First Nation that provided comments.</i></p> <p>4. <i>NACFOR will provide feedback within 60 days of receiving comments or information, including in writing, to a First Nation that provides comments or information. NACFOR will consider any recommendations received from Strategies 2 and 3 and implement those where there is mutual agreement and where practicable.</i></p> <p>5. <i>Where traditional use information is made available, NACFOR will hold any information received in confidence. It is only with the express written consent or direction of the holder of the traditional use information that NACFOR will release any information to any other party (including other First Nation groups or government agencies).</i></p> <p>6. <i>If NACFOR becomes aware of a First Nation's artifact in proximity to road construction or timber harvesting operations, NACFOR will modify or cease operations to the extent necessary to protect the resource, and undertake the following steps:</i></p> <p style="padding-left: 40px;"><i>a. record the location of the artifact;</i></p> <p style="padding-left: 40px;"><i>b. evaluate the direct impact of the activities on the artifact;</i></p> <p style="padding-left: 40px;"><i>c. if the above evaluation determines it necessary, alter the design and/or prescription of the road or timber harvesting to conserve, mitigate or protect the artifact; and</i></p> <p style="padding-left: 40px;"><i>d. communicate the outcome of the evaluation to the First Nation whose artifact may be affected and offer to meet with the First Nation.</i></p> <p><sup>1</sup>. <i>For the purposes of this section, 'cultural heritage resources' refers to those resources that are the focus of a traditional use by an aboriginal people that is of continuing importance to those people, and not regulated under the Heritage Conservation Act.</i></p> <p><sup>2</sup>. <i>Strategies #1 to #5 will be implemented before NACFOR constructs a road or conducts timber harvesting while Strategy #6 will be utilized in the event that a risk to a First Nation's artifact is identified after road construction or timber harvesting activities have commenced.</i></p> <p><sup>3</sup>. <i>To identify the First Nation(s) with asserted traditional territories relevant to planned forest development, NACFOR utilizes the B.C. Government First Nations Consultative Areas Database.</i></p>
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## 5.7. Recreation Resources

**Legal References:** FRPA Sec. 56, Sec. 180 and Sec. 181, FPPR Sec. 70(1), FRR Sec. 16

Information
<i>The Minister may establish an area as an interpretive forest site, a recreation site or a recreation trail and establish objectives for these. In addition, every area established or</i>

*continued as an interpretive forest site, a recreation site or a recreation trail under the FPC is continued under FRPA, including objectives for these. The following is a list of the recreation sites and trails established by government within or directly adjacent to the FDU of this FSP:*

• Arrow Park Trail	• Box Lake Recreation Site
• Galena Bay Trail	• Kuskanax Creek Trail
• Wensley Creek Cross Country Ski Trails	• Arrow Lakes ATV Trails

*The location of recreation sites and recreation trails are identified on the FDU map of this FSP.*

### **Results and Strategies**

*Where NACFOR constructs a road or conducts timber harvesting in an area where these activities may affect an interpretive forest site, a recreation site or a recreation trail, the following result (#1) and strategies (#2 to #7) are specified:*

- 1. Road construction, timber harvesting and related activities will be consistent with any objective established for the interpretive forest site, recreation site or recreation trail.*
- 2. Timber harvesting and road construction activities will proceed only with the authorization of a Recreation Officer.*
- 3. Where an agreement or tenure exists with respect to a site or trail, at the planning and design stage for timber harvesting and road construction or deactivation, NACFOR will provide a referral to the agreement holder, describing the planned activities and allowing a reasonable opportunity for review and comment.*
- 4. If NACFOR carries out primary forest activities<sup>1</sup> within the area of a recreation site or trail that has an established objective that includes a reference to 'motorized' or 'non-motorized' use, this reference does not apply to industrial access or use of machinery for primary forest activities.*
- 5. If NACFOR carries out primary forest activities within the area of a recreation site or trail that is intended as, or has an established objective that includes, 'non-motorized' access and new road construction provides motorized access, the road will to be deactivated and/or rehabilitated within one year following completion of primary forest activities, to a condition which re-establishes the degree of access to that which existed prior to the activities.*
- 6. Unless otherwise approved or directed by a Recreation Officer, where NACFOR carries out primary forest activities within the area of a recreation site or trail the following measures will be implemented:*
  - a. temporary signage will be erected to inform users of the activities;*
  - b. activities will take place during periods of low recreational use, where practicable, as determined through consultation with a Recreation Officer;*
  - c. new roads to access timber will not be constructed across a trail unless there is no other practicable location, or unless another location would result in greater risk to one or more FRPA Values, and in such situations roads will be designed to bisect trails in a perpendicular fashion where practicable;*

- d. trails will be cleared of debris and have safety hazards removed concurrent with primary forest activities and the 'running surface' of trails will be re-established where damaged as soon as practicable and no later than 12 months following the completion of primary forest activities; and
- e. activities adjacent to trails will minimize damage to natural understory vegetation, to the extent practicable.

<sup>1</sup> For the purposes of this section, 'primary forest activities' means one or more of the following: (a) timber harvesting; (b) mechanical silviculture treatments; (c) road construction and deactivation.

## 6. MEASURES IN RELATION TO INVASIVE PLANTS AND NATURAL RANGE BARRIERS

### 6.1. Measures to Prevent the Introduction or Spread of Invasive Plants

**Legal References:** FRPA Sec. 47, FPPR Sec. 17

Information
<p>NACFOR is member of the Land Managers Committee of the Central Kootenay Invasive Species Society and participates in the maintenance of an Operational Framework that provides direction to resource managers on invasive plant species of highest management priority for control, inventory, and monitoring:</p> <p><a href="https://ckiss.ca/wp-content/uploads/2018/05/CKISS_Operational-Framework_2018_FNL.pdf">https://ckiss.ca/wp-content/uploads/2018/05/CKISS_Operational-Framework_2018_FNL.pdf</a></p> <p>As a component of this initiative, an Invasive Plant Priority List has been compiled for the Nakusp Invasive Plant Management Area (IPMA), which is referenced by NACFOR in its forest development planning and operations.</p>

Measures
<p>For the purposes of FRPA Sec. 47 and FPPR Sec. 17, NACFOR specifies the following measures to prevent the introduction or spread of invasive plants:</p> <ol style="list-style-type: none"> <li>At the forest development planning or site plan stage for road construction and timber harvesting, NACFOR will refer to the MFLNRORD Invasive Alien Plant Program (IAPP) database (<a href="https://www.for.gov.bc.ca/hra/plants/application.htm">https://www.for.gov.bc.ca/hra/plants/application.htm</a>) to identify the locations of known invasive plant infestations and to the Nakusp Invasive Plant Management Area (IPMA) Invasive Plant Priority List to determine invasive plant species of highest management priority. Where priority invasive plant infestations are found to be located within or adjacent to areas proposed for road construction or timber harvesting activities, site-specific measures to minimize the establishment and/or spread of invasive plants will be incorporated into site plans.</li> <li>NACFOR will ensure that: <ol style="list-style-type: none"> <li>contractors who conduct forest development planning and layout activities in the field will be confirmed to have invasive plant awareness training, including information regarding species identification, reporting methods and implementation of control measures;</li> </ol> </li> </ol>

- b. outside of known infestation areas, forest development planning and layout contractors carrying out activities in the field notify NACFOR and/or enter newly identified invasive plant infestations into the MFLNRORD Report-a-Weed reporting system (<https://www.for.gov.bc.ca/hra/plants/raw.htm>) within 30 days of discovery; and
  - c. contractors engaged in primary forest activities, or monitoring such activities, are provided with information regarding the identification and reporting of invasive plants and this information is reviewed at pre-work meetings.
- 3. Based on the review described in Measure #1 above and/or where invasive plant infestations are identified as described in 2b., where NACFOR constructs a road or conducts timber harvesting the following measures will be utilized and are requirements that apply to NACFOR and each holder of a contract to construct a road or conduct timber harvesting:
  - a. vehicles, mechanized equipment, culverts, bridges and cattle-guards are to be inspected for the presence of soil or plant material prior to being transported to or from work sites and, if present, plant and soil materials are to be removed;
  - b. to reduce the available seedbed for invasive plants:
    - i. grass seed exposed mineral soils on cut and fill slopes of new roads during the first available spring or fall and not more than 12 months following construction;
    - ii. grass seed exposed soils on all new landings and rehabilitated areas during the first available spring or fall and not more than 12 months following the time of mineral soil exposure, except if the rehabilitated areas are to be revegetated through the planting of trees; and
    - iii. where any contiguous grass seeded areas greater than 0.1 hectare fail to establish (germinate) with grass after one growing season, reseed these areas within 12 months following the first growing season.
  - c. where grass seeding is undertaken, utilize high quality seed (a mix recommended by a MFLNRORD range specialist, if available; otherwise Canada Common #1 Forage mix or better grade) to ensure that the introduction of invasive plant seed is minimized.
- 4. Invasive plant infestations located in cut-blocks will be recorded in Site Plans or associated documents and monitored and reported-on during post-harvest surveys. Personnel conducting post-harvest surveys will be required to identify and report new invasive plant infestations observed during surveys.

## 6.2. Measures to Mitigate the Loss of Natural Range Barriers

**Legal References:** FRPA Sec. 48 and Sec. 51, FPPR Sec. 18

Information
As of the date of commencement of this FSP there are no range units, range agreements or natural range barriers within any portions of the FDU identified in this FSP and therefore the requirement to specify measures to mitigate the loss of natural range barriers does not apply.

## 7. STOCKING STANDARDS

### 7.1. Free Growing Stand Assessment and Stocking Standards

**Legal References:** FRPA Sec. 29(2), FPPR Sec. 16 and Sec. 44

1. *For the purposes of FPPR Section 16(4) (specifying stocking standards), NACFOR hereby adopts the Selkirk Resource District South Columbia 2018 Default Stocking Standards, as amended from time to time. A copy of the version of these stocking standards in effect on the date of the commencement of this FSP is submitted as an accompanying document.*
2. *For the purposes of FPPR Section 16(1) (whether free growing is assessed on a block basis or collectively across blocks), NACFOR specifies that FPPR Section 44(1), free growing stands generally (assessed on a block basis), applies in all situations and circumstances under this FSP.*
3. *For the purposes of FPPR Section 16(3), for each area where NACFOR is required to establish a free growing stand:*
  - (a) the applicable stocking standards and applicable regeneration date referred to in FPPR Section 44(1)(a); and*
  - (b) the applicable stocking standards and applicable free growing height referred to in FPPR Section 44(1)(b);**are as set out within the stocking standards identified in Section 1 above, as amended from time to time.*

## **8. APPENDICES**



## APPENDIX 1 - Cutting Permits and Road Permits in Effect

In accordance with FPPR Section 14(3)(j), the following are the cutting permits (CPs) and road permits (RPs) held by NACFOR and in effect four months before the FSP submission date:

Cutting Permits (CPs)	
Location	CP#
Entire Community Forest Agreement K2S Area	K2S CP001

Road Permits (RPs)	
Location	RP#
Galena Bay	R17275
McDonald Creek	R17567
Fosthall Creek	R17967
Box Lake	R20033
Box Lake	R20668
Summit Lake	R20694
Wensley Creek	R21586

## APPENDIX 2 - Declared Areas

In accordance with FPPR Section 14(4), the following areas are identified by NACFOR as declared areas as of the FSP submission date:

Cutblocks	
Location	Cutblock #
Summit Lake	2811, 2812, 2813, 2814
Nakusp Lookout	2121, 2122, 2123, 2124
Baerg Road	1211, 1215, 1222, 1223, 1226, 1227, 1111
Galena Bay	8111-4, 8112-4, 8113-9, 8113-10, 8113-11, 8114-5, 8114-6, 8114-7
McDonald Creek	1313, 1315, 1316
Fosthall	7011, 7015

Roads	
Location	Road Name/#
Summit Lake	Branch 2, Branch 4
Nakusp Lookout	Lower Lookout Rd, Br 300
Baerg Road	Sp 19, Br 53
McDonald Creek	Br 700

## APPENDIX 3 - Attributes of High-Value Wildlife Tree Retention Strategies

Based on: *The Wildlife Tree Committee of British Columbia. 2006. Wildlife Tree Retention: Management Guidance*

Attributes of a high-value wildlife tree	Attributes of a high-value wildlife tree patch	Attributes of high-value, dispersed wildlife tree retention	Attributes of high-value wildlife tree retention at the cutblock level
<ul style="list-style-type: none"> <li>• Internal decay (heart rot or natural/excavated cavities present).</li> <li>• Crevices present (loose bark or cracks suitable for bats).</li> <li>• Large brooms present.</li> <li>• Active or recent wildlife use.</li> <li>• Tree structure suitable for wildlife use (e.g., large nest, hunting perch, bear den).</li> <li>• Large trees for the site (height and diameter) and veterans.</li> <li>• Locally important wildlife tree species.</li> </ul>	<ul style="list-style-type: none"> <li>• Trees with valuable wildlife tree attributes, including large dead trees.</li> <li>• Potentially dangerous trees have been assessed.</li> <li>• Large patches with no harvest related modifications.</li> <li>• Patches anchored on high-value trees/habitats, and/or other biodiversity criteria (e.g., around raptor nests, cave entrances), riparian areas, and/or operationally difficult areas (e.g., wet areas).</li> <li>• Retention of uncommon species, stand characteristics, and other elements of stand-level biodiversity.</li> <li>• Designed in consideration of windthrow risk.</li> <li>• Designed to balance valuable wildlife tree habitat attributes (e.g., heart rot, brooms, insects) and forest health issues.</li> <li>• Considers how individual tree species and site conditions affect stand structure.</li> <li>• Patches distributed throughout the cutblock.</li> <li>• Undisturbed forest floor.</li> </ul>	<ul style="list-style-type: none"> <li>• Wildlife trees that can be safely worked around during current and near future forest operations.</li> <li>• Retained trees have the potential to achieve the desired stand structure attributes (e.g., tall, large diameter trees).</li> <li>• Considers the susceptibility to windthrow.</li> <li>• Includes deciduous trees, vets, "wolf trees" and other trees of generally lower economic value.</li> </ul>	<ul style="list-style-type: none"> <li>• Based on a pre-harvest field assessment that identifies best opportunities for retaining wildlife trees in the most ecologically and operationally appropriate locations.</li> <li>• Contains a diversity of wildlife tree retention strategies (e.g., a range of patch sizes combined with dispersed trees).</li> <li>• Captures a diversity of habitat types.</li> <li>• Any fallen trees within reserve areas are left in place to function as coarse woody debris, unless they pose a significant forest health or other concern.</li> <li>• Considers tree windfirmness. Patch and individual tree retention considers the site, stand and individual trees during layout (e.g., low height/diameter ratio).</li> <li>• Ecological interpatch distance has been incorporated into design.</li> <li>• Identifiable on a map for long-term tracking and evaluation/monitoring.</li> <li>• Higher levels of retention on cutblocks with high ecological values, and lower levels of retention on cutblocks with low ecological values. However, ideally some retention on every cutblock.</li> <li>• Increased retention levels where there are exceptional wildlife tree or other stand-level biodiversity values that can be retained.</li> </ul>

Note: In general, no single retention strategy is appropriate for all sites. Factors, such as stand type and condition, tree species, and windthrow hazard, create unique conditions for each stand.

## APPENDIX 4 - FPPR Section 7(2) Notices and GAR Orders

### 1) Species at Risk Notices - FPPR section 7(2)

NOTICE	Location / Forest District	Date Notice Given	Species	Exemption from objective (Complete, Partial)	WHA Orders and Notices Providing Exemption
<a href="#">Notice - AB</a>	Arrow Boundary	Dec. 30, 2004	Coeur d'Alene Salamander	Partial	<a href="#">Data Sensitive</a>
			Flammulated Owl	-	
			Interior Western Screech Owl	Complete	<a href="#">Order (PDF 104KB)</a> (No WHAs within NACFOR FDU)

### 2) Ungulate Winter Range - GAR Orders

ORDER / UWR.ID	Species (Location)	Date Order Takes Effect	Total Hectares	Date Amendment Takes Effect (d/m/y)	Approved Objectives/ General Wildlife Measures	Approved Boundaries
U-4-001	Elk, Mule Deer, White-tailed Deer and Moose (Arrow Boundary)	Jan. 3, 2007	277,387	15/02/2007 7/12/2006 2/2/2006	<a href="#">PDF</a> <a href="#">PDF</a> <a href="#">PDF</a> <a href="#">PDF</a>	<a href="#">Boundaries</a>
U-4-014	Mountain Caribou (Central Kootenay / Arrow Boundary)	Dec. 17, 2009	276,944	09/12/2010	<a href="#">PDF</a> <a href="#">PDF</a> <a href="#">PDF</a> <a href="#">(Rationale)</a>	<a href="#">Boundaries</a>

### 3) Wildlife Habitat Features in the Kootenay Boundary Region - GAR Order

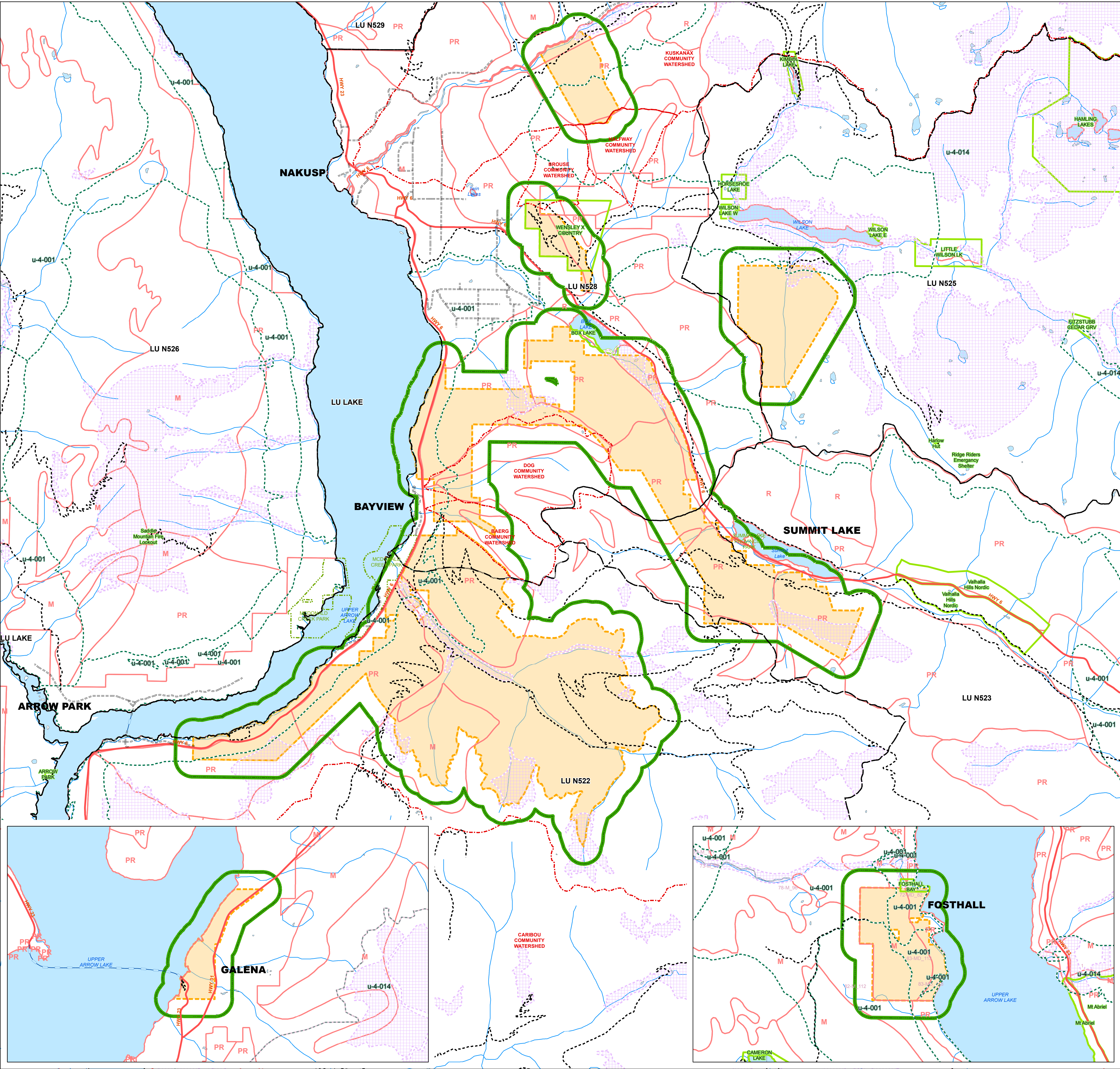
ORDER #	Wildlife Habitat Features	Date Order Takes Effect	Order	Field Guide	Field Cards
M213	(a) a nest of a Bald Eagle ( <i>Haliaeetus leucocephalus</i> ) (b) a nest of an Osprey ( <i>Pandion haliaetus</i> ) (c) a nest of a Flammulated Owl ( <i>Psiloscopus flammeolus</i> ) (d) a nest of a Western Screech-Owl <i>macfarlanei</i> subspecies ( <i>Megascops kennicottii macfarlanei</i> ) (e) a nest of a Great Blue Heron ( <i>Ardea herodias</i> ) (f) a nest of a Lewis's Woodpecker ( <i>Melanerpes lewis</i> ) (g) a nest of a Williamson's Sapsucker ( <i>Sphyrapicus thyroideus</i> ) (h) an American Badger burrow ( <i>Taxidea taxus</i> ) (i) a Grizzly Bear den ( <i>Ursus arctos</i> ) (j) a significant mineral lick (k) a significant wallow (l) a bat hibernaculum (m) a bat nursery roost (n) a hot spring or thermal spring	July 1, 2018	<a href="#">PDF</a>	<a href="#">PDF</a>	<a href="#">PDF</a>

## APPENDIX 5 - Designated Community Watersheds in Effect

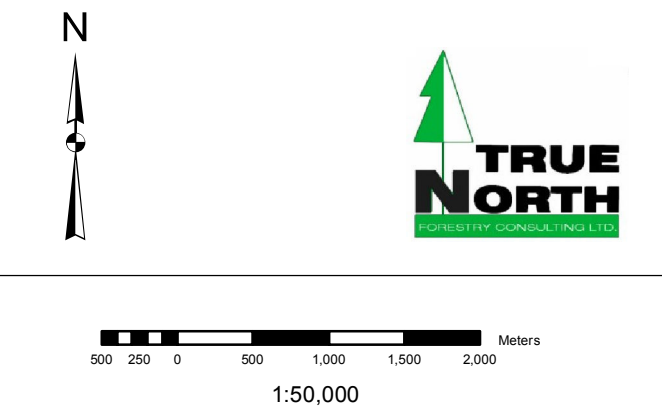
The following are the designated community watersheds overlapping with the FDU of this FSP and in effect at the time of FSP commencement:

<b>Community Watershed Name</b>	<b>Water Source</b>	<b>Operating Area</b>	<b>Total Hectares</b>	<b>Trim Map</b>	<b>Date Designated</b>
Baerg Community Watershed	Baerg Creek	Box-Summit	410.4	082K.012	15-Jun-95
Brouse Community Watershed	Brouse Creek	Wensley	310.7	082K.022	15-Jun-95
Dog Community Watershed	Dog Creek	Box-Summit	1083.1	082K.012	15-Jun-95
Kuskanax Community Watershed	Kuskanax Creek	Kuskanax	34905.2	082K.032	15-Jun-95

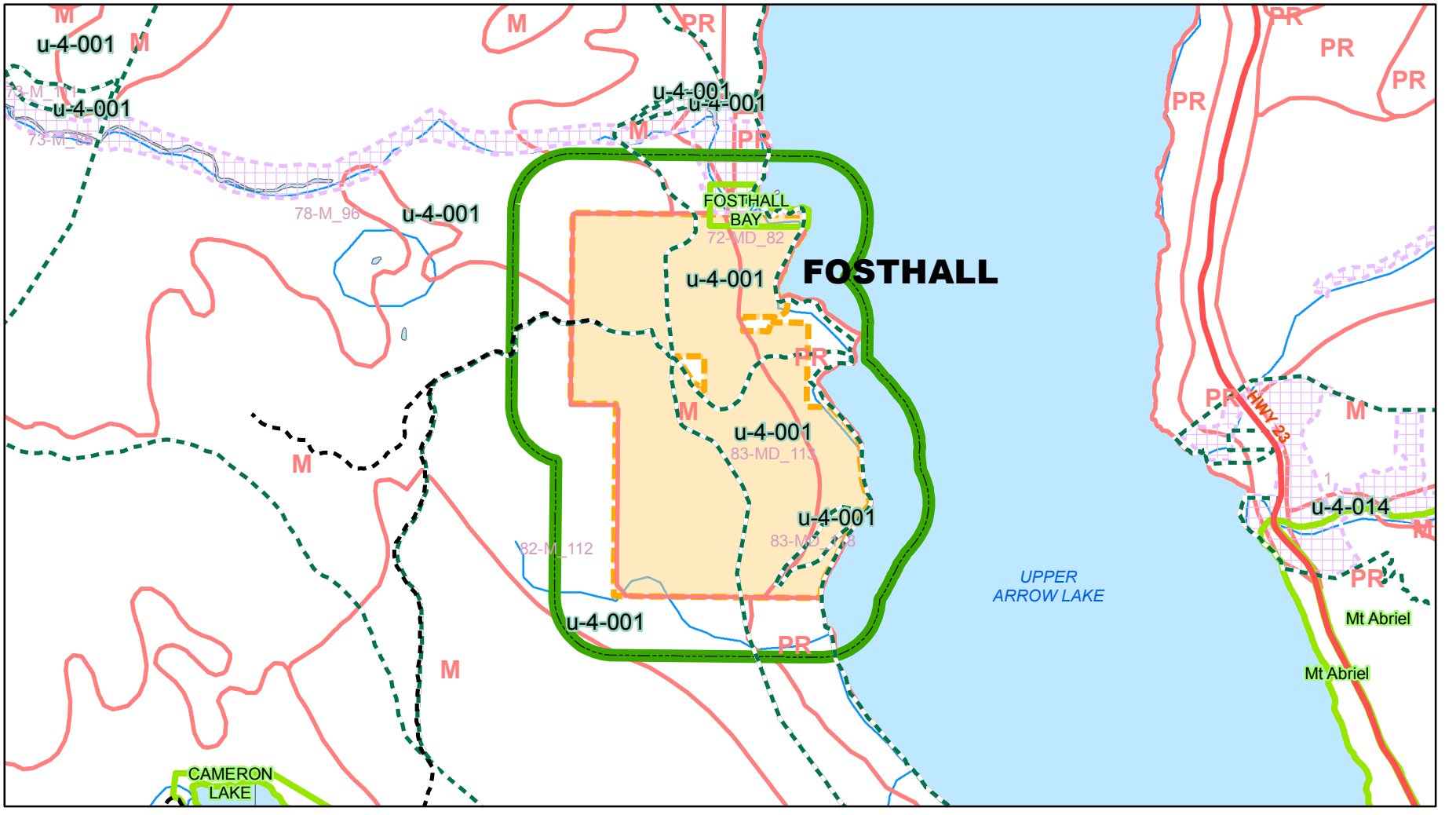
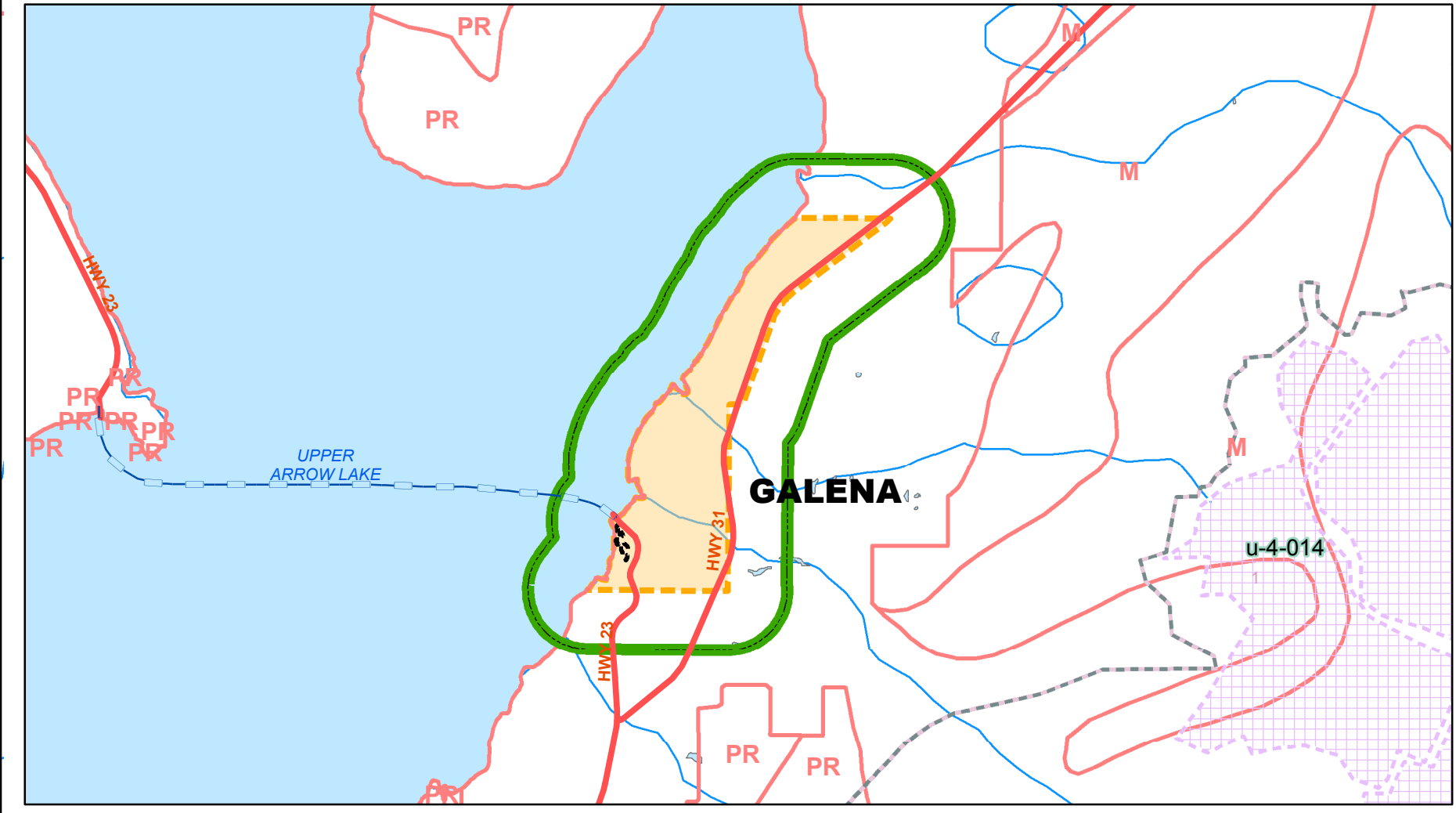




- Legend**
- NACFOR Tenure Areas
  - FDU Boundary
  - Ungulate Winter Range
  - Wildlife Habitat Area
  - Visual Quality Objective
  - Landscape Unit
  - Community Watersheds
  - Old Growth Management Area
  - Indian Reserve
  - Private
  - Crown / Other
  - Provincial Park
  - Recreation Feature
  - Recreation Trails
  - Highway
  - Significant Secondary Road
  - Ferry
  - Creek
  - Lake/River



Paper Source: 30" x 25"  
Drawn by: KE  
Plot Status:  
Date: 26/10/2018  
Scale: 1:50,000  
Coordinate System: NAD 1983 UTM Zone 11N







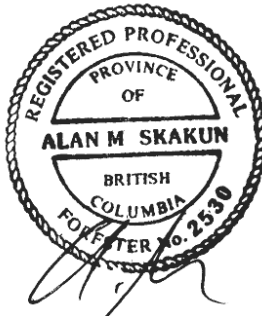
*Nakusp and Area Community Forest (2013) Inc.*

# **SUPPORT DOCUMENT**

for the Nakusp and Area Community Forest  
2018 - 2023 FOREST STEWARDSHIP PLAN  
**#761**

within the  
Selkirk Natural Resource District

Nakusp and Area Community Forest (2013) Inc.  
P.O. Box 925  
Nakusp, B.C.  
V0G 1R0



Prepared by: \_\_\_\_\_

Alan M. Skakun, RPF #2530

Date: December 10, 2018

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# 1. SUPPORTING INFORMATION

## 1.1. Introduction

This document is provided as supporting information for the Nakusp and Area Community Forest (2013) Inc. (NACFOR) 2018 to 2023 Forest Stewardship Plan (FSP) but is not a component of the legal FSP. The purpose of the support document is primarily to assist the Delegated Decision Maker (DDM) in her consideration of the FSP for approval and secondarily to inform the public and stakeholders. The intent is to provide rationale, clarification and/or background information for the results and strategies in the FSP, where considered useful.

## 1.2. Support Document Format

To provide for efficient cross-referencing between this support document and the FSP, the Table of Contents and the numbering of each section are the same. Where the author considered the meaning of a section of the FSP to be implicit, not requiring rationale, clarification or background information, the section number and heading has been retained but the section is labelled 'self-explanatory'.

## 1.3. Public Review and Comment Process Followed

### 1.3.1 Providing Notice

In accordance with Section 20 of the Forest Planning and Practices Regulation (FPPR), this FSP has been advertised in two newspapers (Arrow Lakes News and Valley Voice) circulating in the vicinity of the Forest Development Unit (FDU) identified in the FSP. The advertisements contain all of the information specified in FPPR Section 20(1).

The 60-day Review and Comment period for this FSP was July 12, 2018 to September 10, 2018.

In addition to the legally required newspaper advertising, letters inviting review and written comments were sent to adjacent major licensees (holding renewable Forest Licences and Tree Farm Licences) within the Selkirk Natural Resource District, as well as to stakeholders who have previously expressed an interest in the FSP or the planning and operations of NACFOR.

All First Nations whose asserted traditional territory overlaps with the FDU identified in this FSP were sent letters informing them of the FSP and offering to arrange a meeting between representatives of the First Nation and NACFOR to discuss the FSP and to share information.

### 1.3.2 Review and Comment Information Provided to the DDM

In accordance with FPPR Section 22, NACFOR is providing the FSP to the DDM for approval including a Review and Comment Information Package containing:

1. a copy of the newspaper ads described above with their publication dates;
2. a copy of the major licensee referral letter, with mailing list;
3. a copy of the stakeholder referral letter, with mailing list;

4. a copy of the letter to First Nations offering to meet, with mailing list;
5. a copy of each written comment received during the public review and comment period, and a summary of the comments and responses;
6. a description of changes made to the draft plan as a result of comments received; and
7. a description of the efforts made to meet and share information with First Nations groups.

## 2. INTERPRETATION

### 2.1. Definitions under Acts and Regulations

(Self-Explanatory)

### 2.2. Definitions Specific to this FSP

(Self-Explanatory)

### 2.3. Objectives, Results and Strategies

This section is not a legal requirement but is provided for reviewer and public information to demonstrate NACFOR's intention and commitment to provide results and strategies that are consistent with objectives set by government and that are measureable or verifiable.

### 2.4. Common Acronyms Used in this FSP

**BEC:** Biogeoclimatic Ecosystem Classification

**CHR:** Cultural Heritage Resource

**DDM:** Delegated Decision Maker

**FDU:** Forest Development Unit

**FPC:** Forest Practices Code of BC Act

**FPPR:** Forest Planning and Practices Regulation

**FRPA:** Forest and Range Practices Act

**FRR:** Forest Recreation Regulation

**FSP:** Forest Stewardship Plan

**GAR:** Government Actions Regulation

**GIS:** Geographic Information System

**GWM:** General Wildlife Measure

**KBHLPO:** Kootenay-Boundary Higher Level Plan Order

**LU:** Landscape Unit

**MFLNRORDRD:** Ministry of Forests, Lands, Natural Resource Operations and Rural Development

**NACFOR:** Nakusp and Area Community Forest (2013) Inc.

**OGMA:** Old Growth Management Area

**QP:** Qualified Professional

**QRP:** Qualified Registered Professional

**RMZ:** Riparian Management Zone

**RP:** Road Permit

**RPF:** Registered Professional Forester

**RRZ:** Riparian Reserve Zone

**SAR:** Species at Risk

**SU:** Standards Unit

**UWR:** Ungulate Winter Range

**VIA:** Visual Impact Assessment

**VQO:** Visual Quality Objective  
**WHA:** Wildlife Habitat Area  
**WHF:** Wildlife Habitat Feature  
**WTP:** Wildlife Tree Patch  
**WTRA:** Wildlife Tree Retention Area

### 3. REFERENCES

(Self-Explanatory)

### 4. APPLICATION OF THE FSP

#### 4.1. Term of the FSP

NACFOR is requesting that the Delegated Decision Maker (DDM) for the Minister of Forests, Lands, Natural Resource Operations and Rural Development approve the NACFOR FSP for a term of five years. Irrespective of the FSP approval date, NACFOR is requesting that the effective term of the FSP be from **December 20, 2018** to **December 19, 2023**.

#### 4.2. FSP Holder - Nakusp and Area Community Forest (2013) Inc.

(Self-Explanatory)

#### 4.3. Purpose of the FSP and Public Engagement Outside of the FSP

Sections 4.3.1 to 4.3.3 are not a legal requirement for FSPs but are intended to inform the public and provide NACFOR's view and interpretation of the scale and purpose of the FSP as a landscape level plan, considering the legal requirements in current acts and regulations.

##### 4.3.1 Government Objectives and Public review

(Self-Explanatory)

##### 4.3.2 NACFOR Development Areas and Public Engagement

Section 4.3.2 describes the role of NACFOR Development Area planning, outside of the FSP, as a source for more detailed 'operational' information, including the location of proposed cutblocks and roads, and as an opportunity and means for site-level consultation with First Nations and engagement with stakeholders, forest licensees and the public. This section also describes the strategies and tools NACFOR utilizes for public engagement including annual public open house meetings, continuous local office access and the comprehensive NACFOR website. A commitment is made to respond to any written comments received regarding forest development planning and resource management.

#### 4.4. Application of the FSP

(Self-Explanatory)

#### 4.5. Forest Development Units (FDUs) & Rationale

(Self-Explanatory)

##### 4.5.1 Collaboration within Shared Management Units

###### **Discussion**

Although not a legal content requirement for FSPs, through a legal strategy, NACFOR has committed to collaboration with other forest licence or agreement holders within shared management units (i.e., shared landscape units, community watersheds and ungulate winter ranges) to ensure that the objectives set by government for these areas are achieved.

###### **Measureable or Verifiable**

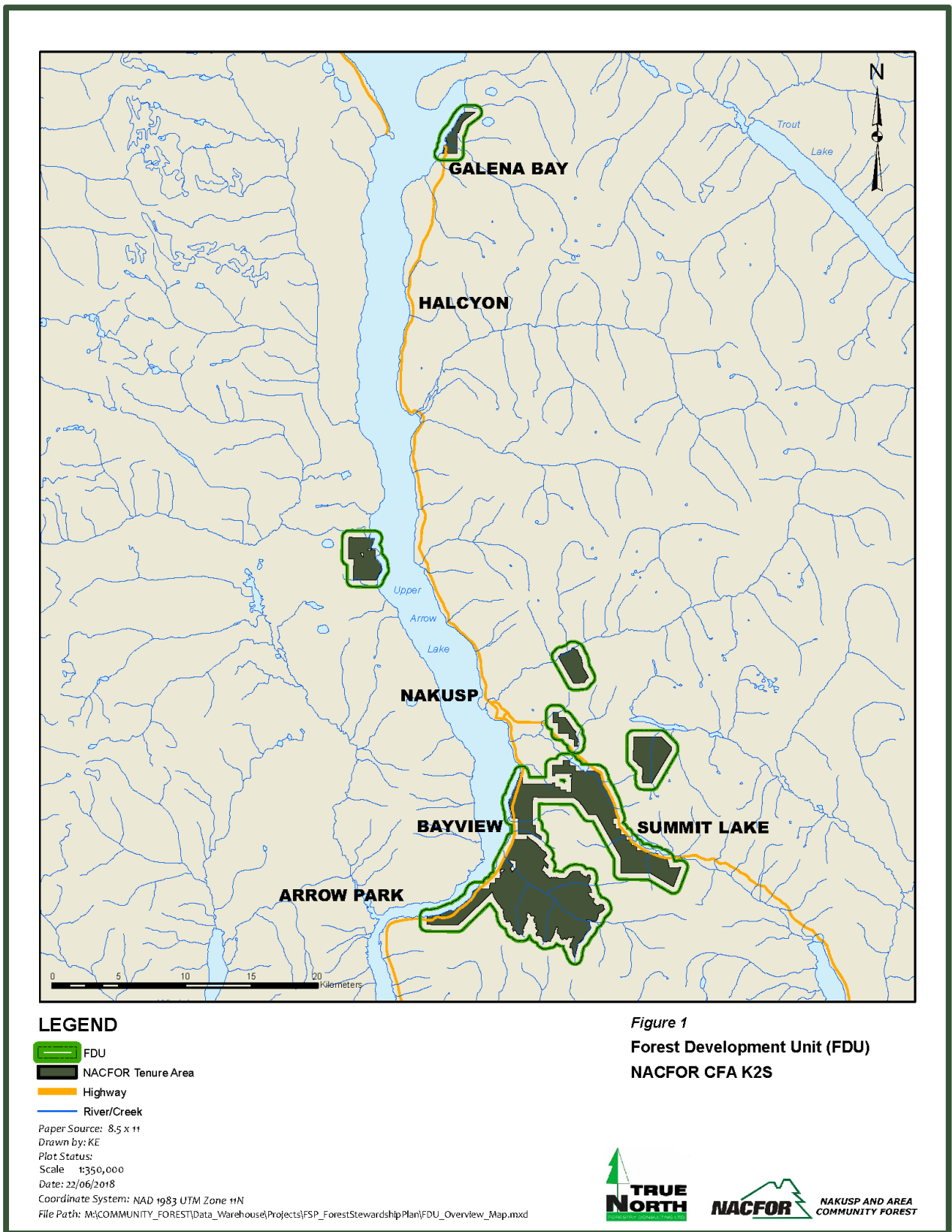
The strategy within this section is verifiable in that, where NACFOR has constructed a road or conducted timber harvesting within one of the above shared management units, written documentation exists and is available regarding the exchange of information with other forest licence or agreement holders, either through direct correspondence or through reports and tables produced from the HLPO Reporting Suite coordinated & maintained by the Selkirk Geospatial Research Centre, or its successor.

#### 4.6. Cutting Permits and Road Permits in Effect

(Self-Explanatory)

#### 4.7. Declared Areas

(Self-Explanatory)



**Figure 1. Forest Development Unit (FDU) General Location Map**

## 5. RESULTS AND STRATEGIES IN RELATION TO FOREST RESOURCE VALUES

### 5.1. Soils

**Legal References:** FPPR Sec. 5, Sec. 12.1 (1), Sec. 35 and Sec. 36

**Discussion**

As a result or strategy, NACFOR has elected to adopt and comply with the practice requirements of FPPR Section 35 (specifying soil disturbance limits) and Section 36 (specifying permanent access structure limits).

**Measureable or Verifiable**

Result or Strategy #1 is considered consistent and measureable or verifiable as it adopts the default practices of FPPR Sections 35 and 36.

### 5.2. Timber

#### 5.2.1 Timber

**Legal References:** FPPR Sec. 6.0 and Sec. 12(8)

**Discussion**

FPPR Section 6 identifies the 3 objectives set by government for timber. These are related to the supply of commercial timber in the province, competitive delivered wood costs in comparison to other jurisdictions and ensuring that legislation does not unduly constrain agreement holders' rights. It is NACFOR's position that these are broad, high level, public policy-related objectives which are outside the scope of results and strategies proposed by a single FSP holder. For this reason, NACFOR has elected the exemption permitted in the regulation (FPPR Section 12(8)) for all FSP holders.

#### 5.2.2 Enhanced Resource Development Zones - Timber

**Legal References:** KBHLPO Objective 7

**Relates to:** FSP Sec. [5.3.1.3](#) and Sec. [5.3.1.6](#)

**Discussion**

KBHLPO Objective 7 allows for successful regeneration of a cutblock within *Enhanced Resource Development Zones - Timber* (ERDZ-Ts) to constitute green-up for the purposes of determining when an adjacent area may be harvested. NACFOR has elected not to take advantage of this reduced green-up standard but to use a single (2.5 metre) green-up height in all situations. Result #1 adopts the practice requirements of Section 64 (Maximum cutblock size) and Section 65 (Harvesting adjacent to another cutblock) of the FPPR as a result related to KBHLPO Objective 7, except that NACFOR has specified that the height requirement of Section 65(3)(a) and Section 65(3)(b)(ii) is reduced from 3 metres to 2.5 metres. The rationale for this strategy is as follows:



Use of 2.5 metres is consistent with KBHLPO Objective 4 which specifies 2.5 metres as green-up height generally, except in certain situations, and which was established based on the then-in-force Section 68(4) of the Operational Planning Regulation of the FPC which stated that a height specified in a higher level plan prevails over the height in the regulation. Within the current regulations, FPPR Sections 12(4) to 12(6) allow that where a land use objective in a higher level plan conflicts with a regulation the objective in the higher level plan may prevail. In accordance, NACFOR has specified a 2.5 metre green-up height to apply in all circumstances within the results or strategies specified in FSP Sections 5.2.2 Enhanced Resource Development Zones - Timber), 5.3.1.3 (Green-up) and 5.3.1.6 (Wildlife and Biodiversity - Landscape Level).

The exceptions to where a 2.5 metre green-up height is established generally by KBHLPO Objective 4 are listed below along with the reasons why NACFOR has specified that 2.5 metres will apply in these situations as well:

1. Community Watersheds. Since KBHLPO Objective 4 was established, the requirement of FPPR Section 8.2 to specify a result or strategy for the objectives set by government for water in a community watershed has come into effect. A comprehensive set of strategies for community watersheds is set out in FSP Section 5.4.1. These include a requirement for a hydrological assessment which considers all of the factors affecting a watershed, and would include the state of green-up / hydrological recovery as well as many other factors. Therefore, specifying a separate, arbitrary green-up height within community watersheds is unnecessary and may be inconsistent with the site-specific assessment results or recommendations.
2. Visually Sensitive Areas. Specifying a green-up height is not an effective method to manage for visual quality as the more significant factor in assessing for visual quality objectives is the amount of the visual landscape or landform that is in a non-vegetated state. FSP Section 5.5 provides effective strategies for visual quality management.
3. Enhanced Resource Development Zones - Timber. Utilizing successful regeneration (essentially 0 metres in height), for a green-up height would be cumbersome to implement and track in ERDZ-Ts separate from other areas, has no increased forest stewardship value and has little benefit related to timber supply.
4. Specified Fire Maintained Ecosystems. This exception is not relevant since the objective related to fire maintained ecosystems (KBHLPO Objective 8) is not in effect.

In Summary:

The use of different green-up height standards in different locations and circumstances would be complex, inefficient, increase the risk of accidental non-compliance and have little or no net resource stewardship benefit.

The FSP result proposed by NACFOR is a balance of the spectrum of standards - from 0 metres green-up permitted in ERDZ-Ts (through KBHLPO Objective 7), to 2.5 metres specified in most locations (with exceptions) by KBHLPO Objective 4, to 3 metres which would apply in the above noted exceptions of KBHLPO Objective 4 and as specified in FPPR Section 65.

This discussion and rationale also applies to FSP Section 5.3.1.3 (KBHLPO Objective 4 - Green-up) and FSP Sec. 5.3.1.6 (Wildlife and Biodiversity at the Landscape Level), for which NACFOR has specified the same results as for Enhanced Resource Development Zones - Timber.

**Measureable or Verifiable**

This result is verifiable and measurable in that timber harvesting is not conducted by NACFOR adjacent to an existing cutblock except where in compliance with FPPR Sections 64 and 65 and where the (minimum 2.5 metre) green-up (height) status of any adjacent cutblock has been documented in a Site Plan, and is evidenced on the ground.

### 5.3. Biodiversity, Wildlife and Fish

#### 5.3.1 Biodiversity

##### 5.3.1.1 Biodiversity Emphasis

**Legal References:** KBHLPO Objective 1

**Relates to:** KBHLPO Objective 2

**Discussion**

NACFOR has specified a result to be consistent with the biodiversity emphasis assigned to landscape units through Objective 1. Consistency is achieved through achieving the requirements of objectives that flow from Objective 1, particularly Objective 2 which identifies the old seral and mature-plus-old seral requirements for each biodiversity emphasis option.

**Measureable or Verifiable**

The result specified for biodiversity emphasis is verifiable through the verification of consistency with the required seral targets of Objective 2 - Old and Mature Forest.

##### 5.3.1.2 Old and Mature Forest

**Legal References:** KBHLPO Objective 2

**Discussion**

Although not legally established, Old Growth Management Areas (OGMA's) have been spatially identified within the Selkirk Natural Resource District and are recognized by licensees and NACFOR in order to meet the objective for old forest that is set out in Objective 2 of the KBHLPO. The requirements of Objective 2 for old seral stage forest are considered to be met through maintaining the areas within these identified OGMA's.

Through Strategy #1, to maintain the old requirements achieved through spatialized OGMA's, NACFOR commits to not harvest in OGMA's except for the specific reasons indicated and, in these situations, to replace the OGMA areas harvested with area of equal or greater biological value, unless the harvesting is for minor incidental reasons (i.e., tail holds, guy line tiebacks or danger trees which are a hazard to adjacent activities).

Through Strategy #2, where the mature-plus-old targets are not met within an LU, as determined by a spatial or aspatial analysis, before conducting timber harvesting within seral stages of the LU affected, a rationale and recruitment strategy will be prepared to achieve the targets consistent with Objective 2 (5) of the KBHLPO (a documented strategy by a Registered Professional Forester (RPF)) including the factors in footnote k of KBHLPO Objective 2 (5) (mature and old attributes). In conducting analysis NACFOR utilizes the *HLPO Reporting Suite* application maintained by the Selkirk Geospatial Research Centre to ensure targets are met and/or identify where a professional rationale and recruitment strategy is required.

#### **Measureable or Verifiable**

Strategy #1 is verifiable as OGMA's are identified on NACFOR FDU and Development Area maps and in available GIS layer coverages maintained by NACFOR and MFLNRORD and harvesting does not take place in OGMA's except for the reasons stated within the strategy and these occurrences are documented by NACFOR in Site Plans or associated documents, including the locations of replacement OGMA areas.

Strategy #2 is verifiable as, where seral stage analysis confirms mature-plus-old targets are not met, NACFOR conducts timber harvesting only after a written rationale and recruitment strategy have been prepared by a RPF and is available.

#### **5.3.1.3 Green-up**

**Legal References:** KBHLPO Objective 4, FPPR Sections 12(4) to 12(6)

**Relates to:** KBHLPO Objective 7, FSP Sec. [5.2.2](#) and Sec. [5.3.1.6](#)

#### **Discussion**

For the objective for Green-up in Objective 4 of the KBHLPO, NACFOR has adopted the practice requirements of Section 64 (Maximum cutblock size) and Section 65 (Harvesting adjacent to another cutblock) of the FPPR as a result. See discussion and rationale within FSP Section 5.2.2 above with regard to the application of KBHLPO Objectives 4 and 7 and FPPR Sections 12(4) to 12(6).

#### **Measureable or Verifiable**

This result is verifiable and measurable in that timber harvesting is not conducted by NACFOR adjacent to an existing cutblock except where in compliance with FPPR Sections 64 and 65 and where the (minimum 2.5 metre) green-up (height) status of any adjacent cutblock has been documented in a Site Plan, and is evidenced on the ground.

#### **5.3.1.4 Fire Maintained Ecosystems**

**Legal References:** KBHLPO Objective 8

This legal objective is not in effect as mapping referred to in the objective has not been legally established under the KBHLPO. Additionally, there are no areas classified as shrub land, open forest or managed forest ecosystems in NDT 4 within the FDU of this FSP, which further makes this Objective non-applicable.

### 5.3.1.5 Water, Fish, Wildlife and Biodiversity within Riparian Areas

**Legal References:** FPPR Sec. 8, Sec. 12.1(6) and Sec. 12(3)

**Relates to:** FSP Sec. [5.3.1.7](#)

#### **Discussion**

NACFOR has elected the exemption from the requirement to specify a result or strategy for the objective for Water, Fish, Wildlife and Biodiversity within Riparian Areas, as permitted by FPPR Section 12.1(6), through a commitment to comply with FPPR Sections 47 to 51 and 52(2) (riparian classes and restrictions) and Section 53 (temperature sensitive streams). However, as noted in Footnote 1 of the results and strategies section, Section 53 is not applicable to this FSP as there are no temperature sensitive streams designated through GAR orders within any portion of the FDU of the FSP.

With regard to FPPR Section 12(3) (retention of trees in a riparian management zone (RMZ)), Section 2 lays out six strategies and a result that are based on a riparian assessment conducted by a Qualified Registered Professional (QRP) at the planning stage for timber harvesting. Strategy 2a identifies the specific factors that will be evaluated and specifications and measures prescribed. Result 2b commits to ranges of tree retention levels as specified in the table provided, based on the site specific factors assessed in 2a.

Prescribing retention levels based on specific factors assessed in 2a recognizes that RMZ retention is a site-level prescription and recognizes the huge range of variability and factors that may be involved in different situations and circumstances. Strategies under Section 2 rely on the professional assessment of the QRP to develop the most appropriate site-specific prescription.

Strategy 2c specifies that tree retention may also be used to achieve stand level (WTRA) retention requirements, if they are suitable based on the assessed factors.

Strategies 2d and 2e are specified to contribute to the maintenance of stream bank and stream channel integrity within RMZs.

Strategy 2f commits NACFOR and its contractors to minimize the introduction of new coarse woody debris and sediment into streams during all primary forest activities.

As guidance to prescribing QRPs, the Information box at the beginning of this section identifies what the objectives of RMZ tree retention are in situations where a Riparian Reserve Zone (RRZ) is present and where it is not.

#### **Measureable or Verifiable**

Strategy 2a and Result 2b are verifiable in that a riparian assessment is produced by a QRP, which includes an evaluation of the applicable factors listed, and at the completion of harvesting RMZ retention levels are present within the ranges specified. A Site Plan or associated document prepared by a QRP exists which prescribes retention levels including the % of the pre-harvest stems per hectare to be retained, as well as their distribution, species and other characteristics indicated. These documents must be produced before NACFOR conducts timber harvesting and are retained and available. Result 2b is also measureable on the ground through

assessment of the post-harvest tree retention within the RMA versus that prescribed in the Site Plan or associated document.

Implementation of Strategy 2c is verifiable as decisions are documented within the Site Plan or associated document prepared by a QRP.

Strategies 2d and 2e (for maintenance of stream bank and stream channel integrity) are verifiable on the ground through inspection of the post-harvest conditions within an RMA, versus these strategies and as prescribed and documented in the Site Plan or associated document.

Strategy 2f is verifiable on the ground through inspection of the post-harvest conditions within an RMA which indicate that the introduction of new coarse woody debris and sediment into streams is not significant.

#### 5.3.1.6 Wildlife and Biodiversity — Landscape Level

**Legal References:** FPPR Sec. 9, Sec. 12.1(3), Sec. 64 and Sec. 65

**Relates to:** FSP Sec. [5.2.2](#), Sec. [5.3.1.2](#) and Sec. [5.3.1.3](#), KBHLPO Objectives 4 and 7

##### **Discussion**

NACFOR has elected an exemption from the requirement to specify a result or strategy for the objective for Wildlife and Biodiversity at the Landscape Level, as permitted by FPPR Section 12.1(3), through a commitment to comply with Section 64 (Maximum cutblock size) and Section 65 (Harvesting adjacent to another cutblock) of the FPPR, except that the height requirement in Section 65(3)(a) and Section 65(3)(b)(ii) is reduced from 3 metres to 2.5 metres.

The rationale for specifying a 2.5 metre green-up height in this section is the same as for green-up height for Enhanced Resource Development Zones - Timber. See discussion and rationale within FSP Section 5.2.2.

##### **Measureable or Verifiable**

This result is verifiable and measurable in that timber harvesting is not conducted by NACFOR adjacent to an existing cutblock except where in compliance with FPPR Sections 64 and 65 and where the (minimum 2.5 metre) green-up (height) status of any adjacent cutblock has been documented in a Site Plan, and is evidenced on the ground.

#### 5.3.1.7 Wildlife and Biodiversity — Stand Level

**Legal References:** FPPR Sec. 9.1, Sec. 12.5 (1), Sec. 12.5 (2), Sec. 66 and Sec. 67

##### **Discussion**

For the objective for wildlife and biodiversity at the stand level NACFOR has chosen to specify alternate results and strategies to FPPR Sections 66 (Wildlife tree retention) and 67 (Restriction on harvesting), in accordance with FPPR Sections 12.5(1) and 12.5(2).

In Strategy #1 NACFOR identifies and commits to documenting the attributes that a QRP will assess in establishing Wildlife Tree Retention Areas (WTRAs). Appendix 3 of the FSP contains a slightly modified version of 'Attributes of High-Value Wildlife Tree Retention Strategies', which

were published in the document *Wildlife Tree Retention: Management Guidance*, developed by The Wildlife Tree Committee of British Columbia (2006).

To provide consistency with the intent of government's objective for wildlife tree retention, as expressed in the practice requirements of FPPR Section 66 (retention of a minimum of 7% of cutblocks), Result #2 specifies that a minimum of 7% of the cutblock area of a Development Area will be retained in WTRAs. By calculating the WTRA requirement at the Development Area level and relating WTRAs to one or more cutblocks of a Development Area, the strategies allow the preferential location of WTRAs in areas that provide the best biological or habitat values for wildlife, rather than simply achieving an arbitrary accounting requirement.

The seven strategies (a. to g.) under Result #2 identify the calculation and allocation rules to be used and commit to retaining WTRAs over the rotation (except for very specific circumstances specified in Result #3).

The flexibility for the QRP to preferentially locate WTRAs is limited and bound to a degree in that (per 2 e.) some structure must be retained in relation to every cutblock of a Development Area and must be at least 3.5% of the cutblock area for any individual cutblock, except if a cutblock is less than 5 ha in size, in which case retention may be less than 3.5% but must be greater than 0%.

Result #3 commits to not harvesting within established WTRAs and Wildlife Tree Patches (WTPs) except for the very specific reasons identified which, for the most part, are beyond the control of NACFOR.

One of these reasons, windthrown trees that 'are a potential source to cause epidemic insect spread' includes a definition that identifies the two species (spruce and Douglas-fir) that are the most significant within the NACFOR operating areas in terms of providing hosts for bark beetle build-up in downed timber. Based on literature review, the definition identifies 'fresh' windthrow (down less than 4 years) as the greatest hazard for beetle build-up in these species and also identifies distance and stand characteristics that constitute a high risk for infestation.

Another circumstance, 'highly susceptible to insect damage', includes a definition of highly susceptible and specifies that the susceptible WTRA must be within 2 km of a current live infestation with a minimum live infestation level of 30% of the total stems per ha of the stand. Since this scenario is most likely to apply to a mountain pine beetle (MPB) situation, 2 km was considered a conservative distance to a live infestation based on the concept of 'beetle pressure index' where distances approaching 3 km or greater generally produce a significantly lower beetle pressure index, resulting in lower risk ratings, regardless of the relative infestation size. For detailed background, see the document entitled '*Susceptibility and risk rating systems for the mountain pine beetle in lodgepole pine stands*', Shore; Safranyik ( 1992).

Lastly, Strategy #4 commits to the replacement of any WTRA/WTP area that is harvested as a result of the circumstances identified in Result #3 (except for very incidental, un-mappable situations) with area that is at least equivalent in habitat value.

#### **Measureable or Verifiable**

The minimum 7% target for a Development Area (and minimum 3.5% retention per cutblock) is measureable and verifiable on every Development Area (as opposed to requiring an annual analysis of all cutblocks on all Development Areas). The total hectares and percentage within WTRAs are calculated and identified within the Site Plan or associated document for each cutblock as well as the overall Development Area and are also measureable on the ground. Harvesting does not take place within a WTRA/WTP, except for one of the reasons stated in Result #3 and, where it occurs, the reasons for the harvesting and the replacement WTRA/WTP area are documented by a QRP within a related Site Plan or associated document or an amendment to these.

### 5.3.2 Wildlife

#### 5.3.2.1 Grizzly Bear Habitat and Connectivity Corridors

**Legal References:** KBHLPO Objective 5

**Relates to:** FSP Sec. [5.3.2.4](#) and Sec. [5.3.1.2](#)

##### **Discussion**

NACFOR has committed to comply with KBHLPO Objective 5 (Grizzly Bear Habitat and Connectivity Corridors) except that, as of the submission date of the FSP, grizzly bear habitat mapping has not been made available through the KBHLPO.

Although the grizzly bear habitat portion of this objective is not in effect, NACFOR has specified a strategy for the maintenance of grizzly bear habitat including following existing management strategies and measures and/or undertaking a field assessment utilizing a QP to provide recommendations and implementing all of the above, including incorporating them into Site Plans or associated documents.

With regard to connectivity and the requirements to meet old and mature-plus-old seral stage targets preferentially within connectivity corridors, the requirements for old forest are considered to be met through spatially identified Old Growth Management Areas (OGMA's) (non-legal) and so there is no need to address the old component of this requirement as connectivity was considered as one of the factors in identifying OGMA's; therefore they are consistent with KBHLPO Objective 5. For the mature component, preferential location into connectivity corridors is an issue where connectivity corridors do not cover an entire BEC variant within the LU. In any situations where the mature-plus-old required targets are not met, the process outlined in FSP Section 5.3.1.2, involving analysis and a recruitment strategy, will be followed before road construction or timber harvesting are authorized.

##### **Measureable or Verifiable**

These results and strategies are verifiable as:

1. For important grizzly bear habitat, primary forest activities are consistent with existing management strategies and measures and/or the written recommendations of a QP, based on a field assessment and are documented in a Site Plan or associated document.

2. With regard to connectivity, the area in OGMAs is not reduced and for the mature-plus-old component NACFOR conducts seral stage analysis where a deficit may exist, the results of which are documented, and a written rationale and recruitment strategy is prepared by a RPF and exists before timber harvesting takes place.

#### 5.3.2.2 Caribou

**Legal References:** KBHLPO Objective 3 and GAR Sec. 9 to Sec. 13

**Relates to:** FSP Sec. [5.3.2.4](#)

As described, the KBHLPO Objective 3 for Caribou is not in effect but NACFOR will be consistent with the requirements for habitat retention for Mountain Caribou specified within the applicable GAR orders, as committed to in the results and strategies of FSP Section 5.3.2.4.

#### 5.3.2.3 Objectives Set by Government for Wildlife

**Legal References:** FPPR Sec. 7 and GAR Sec. 9 to Sec. 13

**Relates to:** FSP Sec. [5.3.2.4](#)

As described, NACFOR is exempt from the obligation to specify a result or strategy in relation the objective set by government for wildlife as this objective is addressed by objectives established for Wildlife Habitat Areas (WHAs), Ungulate Winter Ranges (UWRs), and General Wildlife Measures (GWMs). Each of the orders establishing these under the GAR Sections 9 to 13 also specifically contain this exemption for persons required to prepare an FSP.

#### 5.3.2.4 Species at Risk, Regionally Important Wildlife, Ungulate Winter Range, Wildlife Habitat Areas and Wildlife Habitat Features

**Legal References:** KBHLPO FPPR Sec. 7 and GAR Sec. 9 to Sec. 13

##### **Discussion**

As a result, NACFOR commits to being consistent with the requirements of the applicable Notices under FPPR Section 7(2) and Orders under the GAR Sections 9 to 13. The Section 7(2) Notices and GAR Orders in effect and applicable to the FDUs in this FSP are listed in Appendix 6 of this Associated document.

As additional strategies related to Species at Risk (SAR), Ungulate Winter Range (UWR), Wildlife Habitat Areas (WHAs) and Wildlife Habitat Features (WHFs), NACFOR has committed to:

- ensuring layout contractors have SAR and WHF awareness training; and
- ensuring contractors conducting primary forest activities (e.g., road building or logging) have SAR awareness training and/or receive an identification/notification information package.

##### **Measureable or Verifiable**

The specified result and strategies are verifiable through the following:



1. completed primary forest activities are consistent with the requirements of the applicable Notices and GAR Orders, as documented in Site Plans or Associated documents and as evidenced on the ground;
2. the specified SAR / WHF awareness training and provision of SAR /WHF information packages to contractors is documented on pre-work forms/checklists;
3. information on SAR, UWRs and WHAs is referenced in Site Plans or associated documents and is communicated to contractors through site plans or associated documents and in pre-work forms or checklists; and
4. where a SAR is identified management strategies and measures are documented in a Site Plan or associated document, including the recommendations of any QRP assessment.

### 5.3.3 Fish Habitat in Fisheries Sensitive Watersheds

**Legal References:** FPPR Sec. 8.1 and GAR Sec. 14(1) and Sec. 14(2)

#### **Discussion**

As of the commencement date of this FSP, there are no designated fisheries sensitive watersheds within the FDU of this FSP. As a result, Section 8.1 of the FPPR does not apply to this FSP.

## 5.4. Water for Consumptive Use

### 5.4.1 Water in Community Watersheds

**Legal References:** FPPR Sec. 8.2, Sec. 59 to Sec. 63, Sec. 84

#### **Discussion**

As a result or strategy, NACFOR has adopted FPPR Sections 59 (protecting water quality), 60 (licenced waterworks), 61 (excavated or bladed trails), 62 (roads in a community watershed) and 63 (use of fertilizers). NACFOR has also specified three addition strategies (#2 to #4). Through Strategy #2, before authorizing road construction or timber harvesting, NACFOR has committed to conduct a hydrological assessment and to be consistent with its recommendations in planning and conducting activities. Strategies #3 and #4 commit to a referral letter to the water licensee during planning stages and to notification of the water licensee before the start of road construction or deactivation.

#### **Measureable or Verifiable**

Result or Strategy #1 is considered measureable or verifiable as it adopts the practice requirements of FPPR Sections 59 to 63.

The additional specified strategies (#2 to #4) are verifiable as:

1. prior to conducting primary forest activities a hydrologic assessment is completed by a QRP and is available;

2. planning is in accordance with the recommendations of the hydrologic assessment, as verifiable through Site Plans or an associated document;
3. a referral letter is sent to the water licensee and documented prior to any timber harvesting or road construction;
4. written notification to the water licensee at least 48 hours before the commencement of road construction or deactivation is documented; and
5. completed primary forest activities are consistent with the recommendations of the hydrologic assessment as prescribed in a Site Plan or associated document and as evidenced on the ground.

#### 5.4.2 Consumptive Use Streams

**Legal References:** KBHLPO Objective 6 and FPPR Sec. 59 & Sec. 60(1)

**Relates to:** FSP Sec. [5.3.1.5](#)

##### **Discussion**

In addition to committing to comply with KBHLPO Objective 6 and adopting FPPR Sections 59 (protecting water quality) and 60(1) (licenced waterworks) as a result or strategy (#3), NACFOR commits to provide a referral letter to the water licensee during the planning stage for harvesting and road construction, to ensure a QRP prescribes measures to safeguard water and that the strategies in FSP Section 5.3.1.5 (for riparian management zones) are applied (Strategy #1). As well, Strategy #2 commits to grass seeding of exposed soils within 12 months as a measure for erosion / sediment control measure and to minimize introduction of invasive plants.

##### **Measureable or Verifiable**

The specified strategies are verifiable as:

1. a referral letter is sent to the water licensee prior to any timber harvesting or road construction and is documented;
2. a QRP prescribes measures to safeguard water and a prescription for RMZs is made and these are documented in a Site Plan or associated document;
3. grass seeding, as described in Strategy #2, is completed no later than 12 months after road construction or deactivation are completed, and reseeding takes place where initial seeding fails, as confirmed from inspection forms and as evidenced on the ground; and
4. material harmful to human health is not deposited in water for human consumption, and licenced waterworks are not damaged, per FPPR Sec. 59 & 60(1) which, as practice requirements, are considered verifiable or measureable.

#### 5.5. Visual Quality - Scenic Areas and Visual Quality Objectives

**Legal References:** KBHLPO Objective 9, FPPR Sec. 9.2, GAR Sec. 7(1) and Sec. 7(2)

##### **Discussion**

As a result (#1), NACFOR commits that completed road construction and/or timber harvesting will achieve the established VQO for the area.

Strategy #2 commits to the completion of a Visual Impact Assessment, prior to timber harvesting or road building, including the steps that will be taken to predict the likely VQO using the descriptive categories of visually altered forest landscape as defined in FPPR Section 1.1 (i.e., Preservation, Retention, Partial Retention, Modification and Maximum Modification).

Strategy #3 states that where road construction and/or timber harvesting is proposed and it is not practicable to achieve the established VQO, then NACFOR will apply for an exemption through FPPR Section 12(7).

#### **Measureable or Verifiable**

Result #1 and Strategies #2 and #3 are verifiable in that:

1. as evidenced on the ground, completed road construction and/or timber harvesting is consistent with the VQO established for the area;
2. a Visual Impact Assessment is completed and documented; and
3. where road construction and/or timber harvesting does not achieve the VQO established for the area, NACFOR has obtained and documented an approval of an exemption under Section 12(7) of the FPPR in advance.

## **5.6. Cultural Heritage Resources**

**Legal References:** FPPR Sec. 10

#### **Discussion**

Six detailed strategies are specified in relation to Cultural Heritage Resources (CHRs). Through these NACFOR has committed to:

- providing a potentially affected First Nation with information on proposed forest development and opportunities for review and comment;
- request information on the type and location of important traditional use;
- offer to meet to share information, identify concerns, identify appropriate assessments, discuss forest management activities that meet the needs of both NACFOR and the First Nation and evaluate potential impacts to CHRs;
- provide written feedback within 60 days to any First Nation providing comments or information;
- hold traditional use information in strict confidence; and
- take specific measures, including communication with a First Nation, where a First Nation's artifact is encountered during timber harvesting or road construction activities.

#### **Measureable or Verifiable**

Strategies #1 to #5 for CHRs are verifiable in that, before NACFOR constructs a road or conducts timber harvesting:

1. a written request to share information and an offer to meet with a First Nation is documented, providing at least 30 days for review and comment;
2. where a meeting takes place, the areas of discussion are documented;
3. where information is received from a First Nation and a meeting does not take place, the results of NACFOR's evaluation of the issues is documented and provided to the First Nation;
4. written feedback by NACFOR to any comments from a First Nation occurs within 60 days, including a commitment to implement any recommendations agreed to; and
5. traditional use information provided by a First Nation is not released to any other parties, except with the written consent of the First Nation.

Strategy #6 is verifiable in that, where a First Nation's artifact is encountered during operations, the steps in Strategy #6 are implemented by NACFOR and documented, including communication and an offer to meet with the First Nation.

## 5.7. Recreation Resources

**Legal References:** FRPA Sec. 56, Sec. 180 and Sec. 181, FPPR Sec. 70(1), FRR Sec. 16

### **Discussion**

Where legal objectives have been established for recreation sites and trails these continue to apply (per FRPA Sections 180 and 181). However, information from the Recreation Sites and Trails BC Branch indicates that as new recreation sites and trails are developed corresponding legal objectives may no longer be established. In these cases, it is expected that recreation resources will be managed and conserved through professional reliance and the authority of the Recreation Officer under the Forest Recreation Regulation (FRR), Section 16.

NACFOR has specified a result (#1) and five detailed strategies for forest recreation to be applied in all cases where activities may affect an interpretive forest site, a recreation site or a recreation trail. These strategies commit to being consistent with legal objectives, where they exist, to obtaining authorization from the applicable Recreation Officer and to consulting with recreation agreement holders, as well as a number of specific steps and practices to protect recreation resources.

### **Measureable or Verifiable**

The strategies in this section are verifiable through the following:

1. primary forest activities are consistent with any legal objective established for the interpretive forest site, recreation site or recreation trail, as detailed in a Site Plan or associated document and as evidenced on the ground following completion of activities;
2. authorization from a Recreation Officer to conduct activities in and around recreation sites and trails is obtained by NACFOR and is documented;
3. where a recreation agreement or tenure exists, a referral by NACFOR to the agreement holder takes place and is documented;

4. industrial access and/or use of machinery for approved primary forest activities is permitted;
5. roads constructed to sites or trails intended as non-motorized access are deactivated within one year following completion of primary forest activities; and
6. where primary forest activities take place within the area of a recreation site or trail the measures specified in Strategy #6 are followed, as evidenced on the ground.

## **6. MEASURES IN RELATION TO INVASIVE PLANTS AND NATURAL RANGE BARRIERS**

### **6.1. Measures to Prevent the Introduction or Spread of Invasive Plants**

**Legal References:** FRPA Sec. 47, FPPR Sec. 17

#### **Discussion**

The detailed measures specified to prevent the introduction or spread of invasive plants contain components of risk assessment, awareness training, detection, reporting, inspection and monitoring. In addition, the measures include requirements to prevent transport of soil and plant materials and for prompt revegetation measures.

#### **Measureable or Verifiable**

The measures in this section are verifiable through the following:

1. during planning stages for primary forest activities, reviews of the MFLNRORD Invasive Alien Plant Program (IAPP) database and the Nakusp Invasive Plant Management Area (IPMA) Invasive Plant Priority List take place and measures are documented in site plans;
2. invasive plant awareness training is confirmed for contractors;
3. personnel carrying out activities in the field identify invasive plant infestations in field documents and enter information into the MFNRO report-a-weed reporting system within 30 days;
4. information is provided to contractors involved in primary forest activities regarding invasive plants and the requirements are reviewed at pre-works and during monitoring, as documented in pre-work inspection forms or checklists;
5. contracts require, and/or inspections document:
  - a. inspection of vehicles, equipment, and structures for soil and plant materials and their removal, where present;
  - b. measures to revegetate exposed soils on new roads, trails, landings and rehabilitated areas and occur within 12 months; and
  - c. seeding using a recommended mix, otherwise Canada Common #1 or better grade seed.
6. grass seeding is completed no later than 12 months after road construction or deactivation are completed, and reseeding takes place where initial seeding fails, as confirmed from inspection forms and as evidenced on the ground; and

7. invasive plant infestations are documented in Site Plans or associated documents, recorded in post-harvest surveys and new infestations identified during surveys are reported.

## 6.2. Measures to Mitigate the Loss of Natural Range Barriers

**Legal References:** FRPA Sec. 48 and Sec. 51, FPPR Sec. 18

### **Discussion**

As of the date of commencement of this FSP there are no range units, range agreements or natural range barriers within portions of the FDU identified in this FSP and therefore the requirement to specify measures to mitigate the loss of natural range barriers does not apply.

## 7. STOCKING STANDARDS

### 7.1. Free Growing Stand Assessment and Stocking Standards

**Legal References:** FRPA Sec. 29(2), FPPR Sec. 16 and Sec. 44

### **Discussion**

NACFOR has proposed to adopt the existing Selkirk Resource District South Columbia 2018 Default Stocking Standards, as amended from time to time.

For the purposes of FPPR Section 16(1) (whether free growing is assessed on a block basis or collectively across blocks), NACFOR has specified that FPPR Section 44(1), free growing stands generally (assessed on a block basis), will apply in all situations.

For the purposes of FPPR Section 16(3), for each area where NACFOR is required to establish a free growing stand:

- (a) the applicable stocking standards and applicable regeneration date referred to in FPPR Section 44(1)(a); and
- (b) the applicable stocking standards and applicable free growing height referred to in FPPR Section 44(1)(b);

will be as set out within the Selkirk Resource District South Columbia 2018 Default Stocking Standards, as amended from time to time.

## **8. APPENDICES**

## APPENDIX 1 - Cutting Permits and Road Permits in Effect

(Self-Explanatory)



## APPENDIX 2 - Declared Areas

(Self-Explanatory)

## APPENDIX 3 - Attributes of High-Value Wildlife Tree Retention Strategies

(Self-Explanatory)

## APPENDIX 4 - FPPR Section 7(2) Notices and GAR Orders

(Self-Explanatory)

## APPENDIX 5 - Designated Community Watersheds in Effect

(Self-Explanatory)