



# Creston Valley Forest Corporation Forest Stewardship Plan 2017-2022

## Community Forest Agreement K3D



Signature of Person Required to Prepare the  
Forest Stewardship Plan:

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Date: \_\_\_\_\_

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Name: \_\_\_\_\_  
Daniel Gratton, RPF

*"I certify that the work described herein fulfills the  
standards expected of a member of the Association  
of British Columbia Professionals"*

Date: \_\_\_\_\_

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## Acronym Definitions

AAC	Allowable Annual Cut
ABCFP	Association of BC Forest Professionals
BEC	Biogeoclimatic Ecosystem Classification
CVFC	Creston Valley Forest Corporation
CWS	Community Watershed
DWS	Domestic Watershed
DDM	Delegated Decision-maker
ECA	Equivalent Clearcut-area
FDU	Forest Development Unit
<i>FPCBCA</i>	<i>Forest Practices Code of British Columbia Act</i>
FPC	Forest Practices Code
FPPR	<i>Forest Planning and Practices Regulation</i>
<i>FRPA</i>	<i>Forest and Range Practices Act</i>
FSP	Forest Stewardship Plan
GAR	Government Actions Regulation
KKTC	Ktunaxa Kinbasket Tribal Council
LRMP	Land and Resource Management Plan
MoE	Ministry of Environment
NRFL	Non-Replaceable Forest Licence
NTFP	Non-timber Forest Product
OGMA	Old Growth Management Area
QRP/QP	Qualified Register Professional/Qualified Professional
PoD	Point of Diversion
RMZ	Riparian Management Area
RP	Road Permit
RPF	Registered Professional Forester
RPPR	<i>Range Planning and Practices Regulation</i>
RRZ	Riparian Reserve Zone
RUP	Road Use Permit
SARA	Species at Risk Act
SNRFL	Salvage Non-Replaceable Forest Licence
TFL	Tree Farm Licence
TSA	Timber Supply Area
TSL	Timber Sale Licence
TSR	Timber Supply Review
VQO	Visual Quality Objective
WAP	Watershed Assessment Procedure
WCB	Workers' Compensation Board
WHA	Wildlife Habitat Area

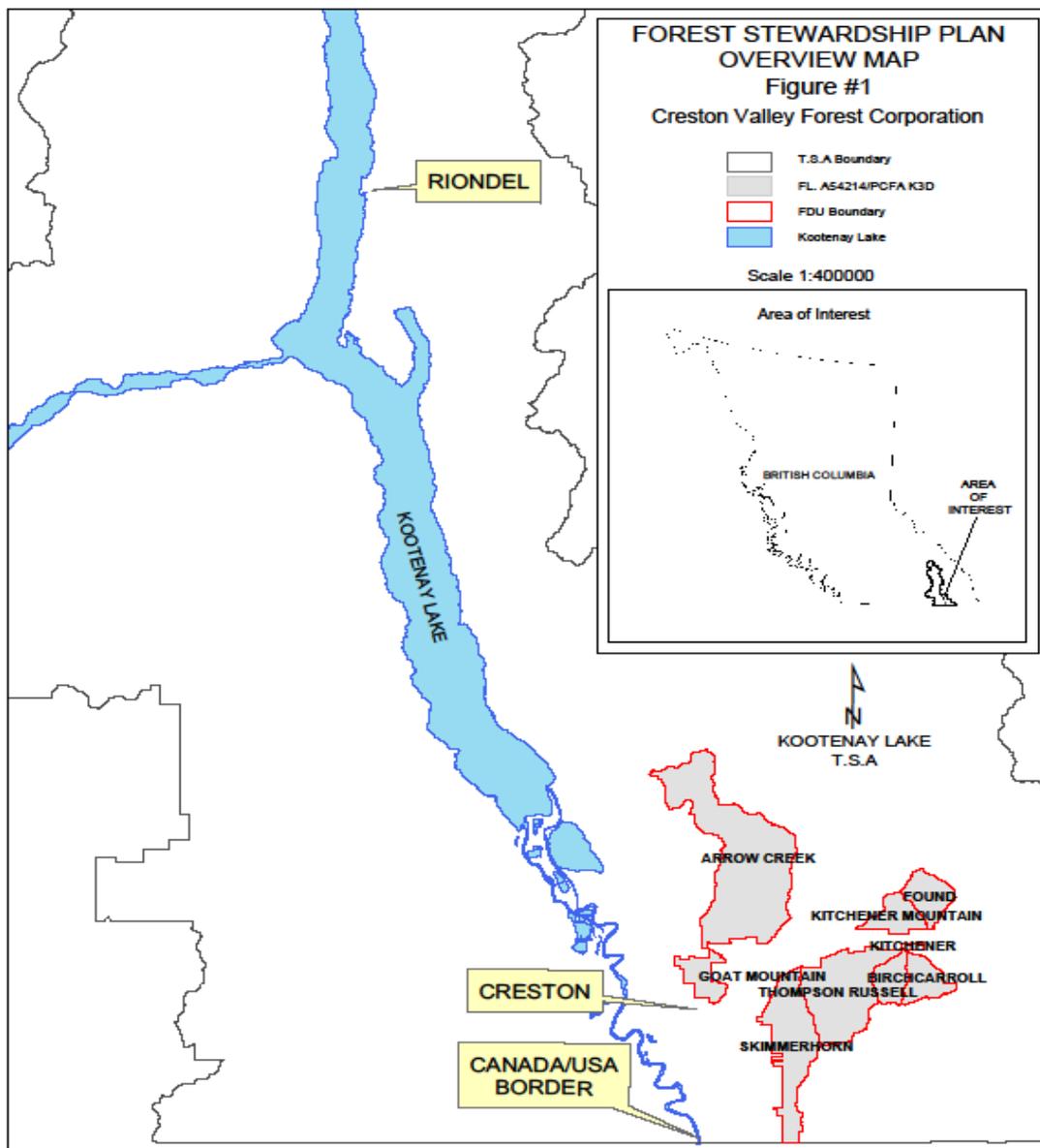
# 1.0 Introduction

## 1.1 Application of Creston Valley Forest Corporation Forest Stewardship Plan 2017-2022

This Forest Stewardship Plan applies to the Creston Valley Forest Corporation’s (CVFC) Licence K3D. CVFC’s management (*Figure 1*). The approved Forest Development Units (FDU’s) are listed in Table 1 and are also provided in Appendix B of the plan.

Table 1 also provides the gross areas of each FDU, their respective Landscape Unit and FDU name. This Forest Stewardship Plan applies to each Cutting Permit and Road Permit that is to be issued to Licence K3D.

**Figure 1.** Map of CVFC’s management area.



**Table 1.** CVFC's Forest Development Units.

FDU No.	FDU Name	Timber Supply Area	Landscape Unit	Gross Area (ha)
1	Arrow Creek	13	K-25	8599.8
2	Goat Mountain	13	K-25	976.2
3	Skimmerhorn Range	13	K-25	3464.5
4	Thompson/ Russell Creek	13	K02/ K05	3973.2
5	Kitchener Mountain	13	K05/K06	1034.6
6	Birch Creek	13	K02	947.8
7	Carroll Creek	13	K02	1095.9
8	Found Creek	13	K05	1221.3
9	Kitchener	13	K02/ K05	94.4

### 1.2 Term of the Forest Stewardship Plan

The term of this Forest Stewardship Plan:

- i) will commence on the day the District Manager grants approval to this document
- ii) will be for 5 years as per Section 6(1)(a) of the *Forest and Range Practices Act*
- iii) may be terminated earlier than 5 years if the Forest Stewardship Plan holder chooses to replace with another approved Forest Stewardship Plan
- iv) may be extended by the District Manager as per Section 6(2) of the *Forest and Range Practices Act*

## 2.0 Description of the Forest Stewardship Plan Area

*This Forest Stewardship Plan has been prepared for the Creston Valley Forest Corporation's (CVFC) Licence K3D management area.*

CVFC's management area measures 21,408 hectares in size and sustains an Allowable Annual Cut of 25,000 m<sup>3</sup>/ year. Licence K3D contains important recreational, scenic and wildlife features along with several Community and Domestic watersheds. The Community Forest's management area is proximal to the Town of Creston making it very accessible to the local public in terms of hiking, berry picking and hunting. These areas include the Arrow Creek Community watershed which provides the Town of Creston with its drinking water and services the fruit orchardists in Erickson, BC; Goat Mountain which has the well known Lady Slipper hiking trail; the western side of the Skimmerhorn range which contains the Mount Thompson Rim trail; the Thompson/ Russell Creek drainage; Kitchener Mountain; Birch Creek; Carroll Creek and Kidd Creek.

Over the years, CVFC has used certain locations within its management area for educational field trips for elementary and high-school students. The community forest is continuously looking at fostering the importance of forest education for elementary and high-school students.

Given that CVFC's management area borders a portion of the Town of Creston and several private land owners, fuel mitigation in the Wildland Urban Interface is an area that the Community Forest will focus on. FireSmart and the Strategic Wildfire Protection Initiative are two such programs that support communities to mitigate risk from wildfire.

### 3.0 Other Plans

The FSP area is subject to the *Kootenay Boundary Higher Level Plan Order (KBHLPO)*, which came into effect on October 26, 2002 along with subsequent variances to this order. The *KBHLPO* objectives have been specifically developed for this region of the Kootenays and takes precedence over objectives set by government under the *Forest and Range Practices Act* and the *Forest Planning and Practices Regulation*, where they conflict.

This FSP is also designed to be consistent with CVFC's Management Plan Amendment # 2 approved in September 2015. This document was prepared for CVFC's management area taking into account the Community Forest's management philosophy. In some situations, CVFC's Management Plan will take precedence over objectives set by government under the *Forest and Range Practices Act* and the *Forest Planning and Practices Regulation*, where they conflict.

### 4.0 Objectives, Results and Strategies

Under Section 149 of the *Forest and Range Practices Act*, the Government of British Columbia identifies several forest resource objectives that are guided by the *Forest and Planning and Practices Regulation*, the *Forest and Range Practices Act*, the Government Action Regulation orders and the *Kootenay Boundary Higher Level Plan Order*. These forest resource objectives are defined in this Forest Stewardship Plan along with how these objectives will be achieved by results and/ or strategies.

The *Forest & Range Practices Act* and other associated legislation outlines how all forest and range practices and resource-based activities are to be conducted on Crown land in B.C., while ensuring protection of everything in and on them, such as plants, animals and ecosystems. All forest and range licensees' activities are governed by the *Forest and Range Practices Act* and its regulations during all stages of planning, road building, logging, reforestation and/or grazing.

This Forest Stewardship Plan also contains Licencee developed strategies that are outlined in CVFC's 2015 Management Plan Amendment # 2. As was previously mentioned, the Community Forest's Management Plan was specifically prepared for Licence K3D, taking into account the company's management philosophy.

**Strategies** are described as:

- a) measurable or verifiable steps or practices that will be carried out to meet a particular established objective and
- b) situations or circumstances that determine where in a Forest Development Unit the steps or practices will be applied.

**Results** are described as:

- a) measurable or verifiable outcomes for a particular established objective and
- b) situations or circumstances that determine where in a Forest Development Unit the outcomes under (a) will be applied.

#### 4.1 Soil Management and Conservation Objective

**Legal Reference:** *Forest and Range Practices Act* Section 149 and *Forest Planning and Practices Regulation* Section 5

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

**Applicable Area:** All Forest Development Units in the Licence K3D area.

**Strategy:** CVFC will comply with the *Forest Planning and Practices Regulation* Sections 35 and 36 in order to meet the defined objective for soil management.

#### 4.2 Water - Community Watersheds

**Legal Reference:** *Forest Planning and Practices Regulation* Section 8.2 (2)

**Objective:** *The objective set by government for water being diverted for human consumptive through a licensed waterworks in a community watershed is to prevent the cumulative hydrological effects of primary forest activities within the community watershed from resulting in*

- a) *material adverse impact on the quantity of water or timing of the flow of the water from waterworks, or*
- b) *the water from the waterworks having a material adverse impact on human health that cannot be addressed by water treatment required under*
  - i) *an enactment, or*
  - ii) *the licence pertaining to the waterworks.*

**Applicable Area:**

These areas can be cross referenced to the Forest Stewardship Plan maps located in the Appendix of this plan.

**Table 2.** Community watersheds located in CVFC's management area.

Community Watershed	Forest Development Unit Number and Name
Arrow Creek	FDU # 1 - Arrow Creek
Sullivan Creek	FDU # 3 - Skimmerhorn
Part of Camp Run Creek	FDU # 3 - Skimmerhorn
Floyd/ Orde Creek	FDU # 3 - Skimmerhorn
Lister Creek	FDU # 3 - Skimmerhorn
Russell Creek	FDU # 4 - Thompson/Russell
Thompson Creek	FDU # 4 - Thompson/Russell

**Strategy:** CVFC will comply with the *Forest Planning and Practices Regulation* Sections 59, 60, 61, 62 and 63. In addition, prior to carrying out a primary forest activity in a Community watershed, CVFC will:

Ensure that an assessment has been completed by a Qualified Registered Professional (QRP) which will include prior to a primary forest activity in a Community Watershed, a hydrological assessment prepared by a QRP, will be completed which includes:

- i) Cumulative hydrological effects including, but not limited to, determining Equivalent Clearcut Area , road density and number of stream crossings, stream channel assessment, sediment sources, terrain stability, hazard and risk interpretations and other factors as deemed necessary.
- ii) A referral to stakeholders and the public which allows adequate time for response.
- iii) Addressing written concerns of stakeholders and the public.
- iv) Other issues as deemed necessary by the licensee or QRP.

The licensee will ensure that all primary forest activities are consistent with the recommendations of the hydrological assessment.

#### 4.2.1 Water - Consumptive Streams (Domestic watersheds)

**Legal Reference:** The *Forest Planning and Practices Regulation* Section 8 and the *Kootenay Boundary Land Use Plan Objective* Section 6.

**Objective:** CVFC will ensure that a referral process is carried out that notifies all potentially impacted water licences when a development is proposed.

#### Applicable Area:

The following watersheds and their respective Forest Development Units can be cross referenced to the Forest Stewardship Plan development maps located in the Appendix of this Plan.

**Table 3.** Domestic watersheds located in CVFC's management area.

Domestic Watershed	Forest Development Unit Number and Name
Big Bear Brook	Arrow Creek/ FDU # 1
Arrow West Face	Arrow Creek/ FDU # 1
Okell Creek	Arrow Creek/ FDU # 1
Bank Creek	Thompson/ Russell/ FDU # 4
Russell West Face	Thompson/ Russell/ FDU # 4
Russell East Face	Thompson/ Russell/ FDU # 4
Sullivan- Thompson Face	Skimmerhorn/ FDU # 3
Floyd Face	Skimmerhorn/ FDU # 3
Goat South Face	Skimmerhorn/ FDU # 3

**Strategy:** Prior to a primary forest activity in a Domestic use watershed, the agreement holder will:

- a) Seek the current information for Point of Diversions (PoD's) from the Ministry of Environment, Water Stewardship Division's Water Licensees Web Query database.
- b) Map the water licenses POD (s) that may be affected by a primary forest activity.
- c) Contact any potentially affected water licensee to ensure accuracy of the POD information and consult with the licensee with regards to planned primary activity.
- d) Locate POD's on the ground if deemed necessary by a QRP. Ensure QRP recommendations and/or water licensee comments are considered in planning primary forest activities.

The licensee will utilize specific measures within the ‘stream side management zone’:

- a) Retention of trees within the “stream side management zone” will comply with the strategy for RMZ’s in Section 4.4 of this plan.
- b) Ground-base equipment is restricted from operating in the ‘stream side management zone’.
- c) Cable harvest yarding roads are restricted from ‘stream side management zones’ unless approved in writing by a QRP.
- d) Cable harvesting within a ‘stream side management zone’ will yard trees butt first.
- e) Stream channels will be cleaned of harvesting debris immediately following harvest.

### **4.3 Fisheries Sensitive Streams and Watersheds**

**Legal Reference:** *Forest Planning and Practices Regulation* Section 8.1

**Practice Requirements:** There are no fisheries sensitive watersheds in any of Forest Development Units of Licence K3D.

### **4.4 General Biodiversity**

**Legal Reference:** *Kootenay Boundary Land Use Plan* Objectives 1, 2, 4, 7 and 8 and *Forest Planning Practices Regulation* Sections 9, 9.1, 64 and 65

**Objective:** The overall objective for general biodiversity will be for the conservation, diversity and abundance of native species and their habitats throughout the area of Licence K3D. More specifically, this will include:

- Landscape Level Biodiversity
- Wildlife Tree Retention
- Old and Mature Forests
- Riparian management
- Wildlife and Species at Risk

#### **4.4.1 Landscape Level Biodiversity**

**Legal Reference:** *Forest Planning and Practices Regulation* Sections 64 and 65

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

**Applicable Area:** All Forest Development Units of Licence K3D area

**Strategy:** When CVFC carries out or authorizes primary forest activities, the licensee will ensure that activities are designed and carried out as per the *Forest Planning and Practices Regulation* Sections 64 and 65.

Stand level practices should reflect the naturally occurring patterns of disturbance found on the landscape. For example, small irregular cutblocks can mimic small- scale wind-throw events and root rot centers. Large cutblocks with scattered riparian leave strips, or island remnants (such as veteran trees), can mimic larger stand initiating wildfires and insect epidemics.

Stand level practices should reflect the landscape level disturbance history as well as current levels of management disturbance.

#### **4.4.2 Wildlife Tree Retention – (Stand Level)**

**Legal Reference:** *Forest Planning and Practices Regulation* Sections 9.1 and 66

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

**Applicable Area:** All Forest Development Units of Licence K3D area.

**Strategy:** CVFC will comply with the *Forest Planning and Practices Regulation* Sections 66, 67 and 68.

Regarding what constitutes a Wildlife Tree Retention area, CVFC will select areas containing wildlife trees such as large wolfy looking Douglas-fir and Larch veterans that are windfirm, areas showing active wildlife use such as elk/ moose wallows and trees used for nesting. A large part of CVFC's management area lies in the ICHxw and ICHdw Biogeoclimatic zones<sup>1</sup> which contain deciduous species such as Poplar and Birch. Whenever possible, these species will also be selected for retention.

CVFC will comply with Section 66 of the *Forest Planning and Practices Regulation* with regards to reserving a minimum target of 3.5% of the area of a block for wild life tree retention. For example, if the gross area of a block measures 30 hectares, at least 1.05 hectares will be established as a wildlife tree patch.

Individual wildlife trees will also contribute towards the total percent amount of wildlife tree retention. Areas of a block containing individual trees and small patches measuring less than 0.25 hectares in size will contribute on the basis of the total basal area of the trees divided by the average basal area/ hectare of the pre-harvest stand. For example, if half the volume is retained following a shelterwood silviculture harvest system, the wildlife tree retention will be established at 50% of the original stand.

#### **4.4.3 Old and Mature Forests**

**Legal Reference:** *Kootenay Boundary Higher Level Plan Order* Section 2

**Objective:** The objective will be to maintain old and mature forests referenced in the Kootenay Boundary Higher Level Plan.

**Applicable Area:** All Forest Development Units of Licence K3D area.

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<sup>1</sup> In BC, the Biogeoclimatic Ecosystem Classification (BEC) system is used for identifying and categorizing ecosystems throughout the province. It combines climate, vegetation and site characteristics (soils, elevation, slope position and geology) in order to classify the ecosystem of a particular area. The nomenclature that is used in the BEC system for identifying a specific zone is done by listing one or more tree species as a two to four letter code. The ICH denotes *Interior Cedar Hemlock* (Interior is used as a geographic modifier), while the 'xw' code represents the climate and temperature of that zone which is 'very warm and dry'.

**Strategy:** CVFC will comply with Objective 2 of the *Kootenay Boundary Higher Level Plan Order*. Specifically, this will involve retaining old forest values and attributes, or rare features in Old Growth Management Areas<sup>2</sup> across the landscape over time.

Exceptions will be:

- a) to prevent the spread of insect infestations or disease posing a threat to deforested areas external to an Old Growth Management Area.
- b) To address safety hazards associated with primary forest activities.
- c) To provide for guyline clearance and tailhold anchors
- d) To address fuel management concerns and related safety hazards.
- e) To provide road access where no alternative practicable option for road location exists
- f) To facilitate timber harvesting that will result in operationally practicable cutblock boundaries.
- g) A Qualified Registered Professional determines that a polygon spatially identified as an Old Growth Management Areas does not meet the definition of an old forest. For example, forest cover maps identify the area as Age Class 8 but field observations determine that the stand is actually Age 4 lodgepole pine. As such, the area can be proposed for primary forest activities as long the modification to the Old Growth Management polygon is replaced by an area of equal size and actually does contain Old Growth Management attributes.

Primary forest activities conducted for the purposes outlined above will be conducted to the minimum extent necessary to accommodate the purpose.

#### **4.4.4 Riparian Management**

**Legal Reference:** *Forest Planning and Practices Regulation* Section 8 and Sections 47 thru to 58

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

#### **Applicable Area:**

All Forest Development Units within Licence K3D operating area.

#### **Stream Classifications and Definitions:**

**S1A stream** - is a stream that is over one kilometer in length, either a stream width or an active flood plain width of 100 metres or greater;

**S1B stream** - is a stream having a width greater than 20 metres but does not have a riparian class of S1A;

<sup>2</sup>Attributes used in some ecological old-growth definitions include: large old trees, a multilayered canopy, numerous large snags and logs, a diverse tree community, some trees having a great age, canopy gaps, a hummocky microtopography, complex structure, wider tree spacing and increased understory production (Kneeshaw and Burton 1998).

**S2 stream** - is a stream that is more than 5 metres in width but not more than 20 metres in width

**S3 stream** - is a stream that is not less than 1.5 metres in width but is less than 5 metres in width

**S4 stream** – is a stream that is less than 1.5 metres in width

A stream that is not a fish stream and is located outside of a Community watershed has the following riparian class:

/

**S5 stream** - is a stream with a width greater than 3 metres

**S6 stream** - is a stream with a width that is 3 metres or less

**Percent retention:** means the percentage of the number of trees (equal to or greater than 12.52 cm diameter breast height) within the Riparian management zone.

**Machine Free Zone:** means an area where the tracks or wheels of ground based machinery are not permitted.

**Strategy:** If the Community Forest carries out or authorizes primary forest activities within the management zone of a stream or wetland complex

- the activities will conform with Sections 47 to 51, 52(2) and 53 of the *Forest and Range Practices Regulation*.
- the following retention strategies will be implemented as shown in Tables 4 and 5.

**Table 4.** Riparian Retention Strategies for streams.

Riparian Class	Riparian Management Area Width (m)	Riparian Reserve Zone (m)	Riparian Management Zone (m)	*Minimum Percent Retention in the Riparian Management Zone	**Minimum Percent Retention in the Riparian Management Zone
S1 – A	100	0	100	100%	100%
S1 – B	70	50	20	20%	60%
S2	50	30	20	20%	60%
S3	40	20	20	20%	60%
S4	30	0	30	30%	60%
S5	30	0	30	30%	60%
S6	20	0	20	20%	60%

\* As per the *Forest Planning and Practices Regulation* which are general objectives for percent retention.

\*\* This Forest Stewardship Plan commits the Community Forest to maintaining 60% of the basal area within the management zones of streams, wetlands and lakes.

**Table 5.** Riparian Retention Strategies for wetlands.

Riparian Class	Riparian Management Area Width (m)	Riparian Reserve Zone (m)	Riparian Management Zone (m)	*Minimum Percent Retention in the Riparian Management Zone	**Minimum Percent Retention in the Riparian Management Zone
W1	50	10	40	25%	60%
W2	30	10	20	25%	60%
W3	30	0	30	25%	60%
W4	30	0	30	25%	60%

W5	50	10	40	25%	60%
<p>* As per the <i>Forest Planning and Practices Regulation</i> which are general objectives for percent retention.</p> <p>** This Forest Stewardship Plan commits the Community Forest to maintaining 60% of the basal area within the management zones of streams, wetlands and lakes.</p>					

- c) When carrying out harvest activities in areas where a stream or wetland complex is located, the Community Forest will establish a 5 metre machine free zone next to all Riparian Reserve Zones for the purpose of retaining existing shrubs and herbs and non-merchantable/ merchantable trees except where the licensee is:
- i) establishing a stream crossing
  - ii) carrying out hand falling
  - iii) carrying out cable or aerial yarding across or adjacent to a stream
  - iv) removing trees to address a safety concern
  - v) carrying out vegetation management treatments to meet free growing requirements

#### **4.4.5 Wildlife Habitat Areas**

**Legal Reference:** *Forest Planning and Practices Regulation* Section 7 and *Government Actions Regulation* Section 9(2) and 10(1)

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

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

**Applicable Area:** Forest Development Unit # 3/ Skimmerhorn Range

**Strategy:** CVFC will comply with the *Forest Planning and Practices Regulation* Section 7 and the *Government Actions Regulation* specific to Wildlife Habitat Area Unit # 4-205.

This will include:

- a) Ensuring that operations have low impact on known nesting and breeding sites of the Western Screech-Owl.
- b) When possible, enhancing the riparian habitat of the Western Screech-Owl.

Wildlife Habitat Area (WHA) (#4-205) is located within Forest Development Unit # 3 of the Skimmerhorn mountain range in Canyon, BC. This area has been identified for the benefit of the Western Screech-Owl, more specifically the subspecies, interior Western Screech-Owl (*Megascops kennicotti macfarlanei*); a red-listed species in British Columbia. This species of owl occupies a fairly small portion of southern BC starting from Lillooet and extending east to the Flathead Valley.

The preferred habitat of the Western Screech-Owl is low-elevation riparian forests. These ecosystems are often altered by harvesting and development, resulting in habitat loss and degradation. The owls tend to nest in mature, larger diameter black cottonwood and trembling

aspen, while roosting and hunting in nearby conifer stands and meadows. The coniferous component, especially western redcedar, seems to be very important for nesting for the owls in the Kootenays; possibly providing enhanced protection from predators. Protection of nesting sites is crucial, as survival rates for Western Screech-Owls in the Kootenays is low, especially for females during nesting.

The Wildlife Habitat Area provides good Western Screech-Owl habitat, with a mixed forest of predominantly western red-cedar, western hemlock and black cottonwood. There are several creeks which transect the area, one of these being Camp Run Creek, which provide the owl with its desired riparian environment. The Wildlife Habitat Area abuts multiple private land parcels, many of which have fields and open grassland, providing good hunting grounds for the owl. The terrain is fairly gentle in the west section of the Wildlife Habitat Area and begins to climb to the east.

The *Government Actions Regulation Order* has not yet been approved for Wildlife Habitat Area #4-205. Once approved, CVFC will follow the requirements set out by the *Government Actions Regulation Order*. Until such time, CVFC will use the following:

To protect the integrity of the breeding and home range:

- No operations will occur within the Wildlife Habitat Area south of Camp Run Creek.
- Allow operations within the Wildlife Habitat Area north of Camp Run Creek, but limit disturbance during nesting and rearing (March-August) by completing activities during the fall and winter months (September-February).
- Only treatment to occur with south of Camp Run Creek within the Wildlife Habitat Area will be fuel mitigation, which will include thinning of the understory (<15cm dbh) and removing ladder fuels.
- If feasible and practicable, leave a basal area of at least 50%; Western redcedar should comprise a portion of the leave.
- Where operations allow, leave the larger diameter (>20cm dbh) deciduous.

#### **4.5 Species at Risk**

**Legal Reference:** CVFC will comply with the *Forest Planning and Practices Regulation* Section 7(1).

**Objective:** *The objective set by government for wildlife is, without unduly reducing the supply of timber from British Columbia's forests, to conserve sufficient wildlife habitat in terms of amounts of area, distribution of areas and attributes of those areas, for the survival of species at risk, the survival of regionally important wildlife, and the winter survival of specified ungulate species.*

**Applicable Area:** All Forest Development Unit's of CVFC's Licence K3D area.

#### **Strategy:**

- a) To stay informed on the status of the species at risk known to occur within the management area through the review of current notices.
- b) To follow best management practices when operating in an area that is known to contain species at risk.
- c) To report any species at risk observed by staff or contractors.

Most of the species at risk that fall within CVFC's Forest Developments Units are likely because of a large buffer. For many of the species, their distribution is on the Creston Valley flats and around Kootenay River. The exception to this is the Pygmy Slug (found in the Skimmerhorn FDU), the Northern Pocket Gopher (found in the Goat Mtn. FDU) and possibly the Montana Lupine (buffer extends into Goat Mtn, Arrow Creek, Thompson/Russell and Skimmerhorn FDUs). The species information was obtained from historical data and last documented observation was many decades ago. The following table provides information on the species at risk or their respective buffers which are located within CVFC's operating area.

**Table 6.** Red listed species at risk identified within CVFC's management area.

Species	Status	Distribution
<b>Red Listed</b>		
Common downingia/ <i>Downingia elegans</i>	Presumed extirpated Last observed in the Creston Valley: October 25,1950	This species was possibly extirpated in BC subsequent to the last observation in September 1950 following the dyking of Leach lake. Suitable habitat in the southeast part of the province should be searched to ascertain whether the species still occurs in the province. It is unknown how well this species has even been searched for in the Leach Lake area where it was first observed. It is possible that it survived lake level modifications and a thorough inventory of the Creston Valley wetlands should be done. ( <i>BC Conservation Data Centre</i> )
Northern Pocket Gopher/ <i>Segregatus subspecies</i>	Imperiled Last observed in the Creston Valley: October 12,1996	Known only from the type locality, Wynndel, just north of Creston, British Columbia. Isolated from other subspecies by the Kootenay River and by mountainous terrain. Location documented at the northern base of Arrow Mtn. ( <i>BC Conservation Data Centre</i> )
Alkali-marsh Butterweed/ <i>Senecio hydrophilus</i>	Historical/Possibly Extirpated Last observed in the Creston Valley: August 19, 1891	Wet, often alkaline swamps and meadows in the montane zone; rare in extreme southeast BC. Location documented Kootenay River. ( <i>E-Flora BC</i> )
Montana Lupine/ <i>Lupinus arbustus ssp.</i> <i>pseudoparviflorus</i>	Critically Imperiled Last observed in the Creston Valley: <i>No info</i>	May be uncommon in portions of range, but found from Nevada north into Canada in dry meadows/sagebrush-steppe/moist forest habitats ( <i>NatureServe Explorer</i> )

**Table 7.** Blue listed species at risk identified within CVFC's management area.

Blue Listed		
Red-tailed Chipmunk/ <i>Simulans subspecies</i>	Special Concern, Vulnerable to Extirpation or Extinction Last observed in the Creston Valley: August 15, 1951	Wynndel, West Creston, Nick's Island ( <i>BC Conservation Data Centre</i> )
Tall beggar-ticks/ <i>Bidens vulgata</i>	Imperiled Last observed in the Creston Valley: August 10, 1952	Rare in southern BC east of the Coast-Cascade Mountains Location documented in Wynndel. ( <i>E-Flora BC</i> )
Pygmy Slug/ <i>Kootenaia burkei</i>	Imperiled Last observed in the Creston Valley: September 24, 2014	It has recently been confirmed in British Columbia near Kootenay Pass and in the Ktunaxa Traditional Territory in southeastern British Columbia. Location documented east of Thompson Mtn. FSR ( <i>BC Conservation Data Centre</i> )

While in the planning phase of a development located within an area that is known to contain a species at risk CVFC will:

- Consult the Government of Canada Species at Risk Public Registry [http://www.registrelep-sararegistry.gc.ca/sar/index/default\\_e.cfm](http://www.registrelep-sararegistry.gc.ca/sar/index/default_e.cfm) for information on the species of interest.
- Consult the BC Species and Ecosystem Explorer application. <http://a100.gov.bc.ca/pub/eswp/> for information on best management practices for the species of interest.
- If sufficient guidance cannot be found using the above resources, CVFC will contact the Ministry of Forests, Lands and Natural Resources Operations Rare and Endangered Species Biologist for the Kootenay region.
- Include the researched/consulted best management strategies for the specific species into the Site and Harvest Plans.

When operating in an area known to contain a species at risk, contractors and field staff will:

- Be provided with a document containing habitat information and photos pertaining to the species.
- Where possible, retain existing, natural habitats for the species at risk.
- Strive to enhance, retain or restore key habitat features for the species at risk.
- Consult with a Qualified Registered Professional if attempting to enhance or restore habitat.

If a species at risk is observed:

- Contractors and field staff are to cease activities and notify CVFC immediately.
- CVFC will contact the Ministry of Forests, Lands and Natural Resources Operations Rare and Endangered Species Biologist for the Kootenay region in order to obtain further direction.

The current Species at Risk Notices for the Kootenay Lake Forest District include the Rocky Mountain Tailed-frog and the Coeur d'Alene Salamander <http://www.env.gov.bc.ca/wld/frpa/notices/sar.html#kl>. It has been determined that the amount, distributions and attributes of wildlife habitat for the Rocky Mountain Tailed-frog have been met, but that of the Coeur d'Alene Salamander remain incomplete. Currently there are no Wildlife Habitat Areas for the Coeur d'Alene Salamander within CVFC's operating area. CVFC will continue to review the Species at Risk Notices for any changes.

#### **4.5.1 Wildlife**

##### **4.5.1.1 Mountain Caribou**

**Legal Reference:** *Higher Level Plan Order Resource Management Zone Objective 3 and Government Actions Regulation Order #4-012.*

**Objective:** To ensure year round habitat for Mountain Caribou in order to foster their continued existence by maintaining forest cover requirements in those areas set aside for Mountain Caribou.

**Applicable Area:** Arrow Creek Forest Development Unit

**Results:** CVFC will follow the Government Actions Regulation regarding Mountain Caribou.

##### **4.5.1.2 Grizzly Bear Habitat**

**Legal Reference:** *Government Actions Regulation Section 9(1) and Kootenay Boundary Higher Level Plan Order Objective 5*

**Objective:** *To maintain mature and/ or old forests adjacent to important grizzly bear habitat and within connectivity corridors.*

**Strategy:** CVFC will comply with Order 5 of the *Kootenay Boundary Higher Level Plan Order.*

#### **4.6 Cultural Heritage Resources**

**Legal Reference:** *Forest Planning and Practices Regulation Section 10.*

**Objective:** *The objective set by government for cultural heritage resources is to conserve, or, if necessary, protect cultural heritage resources that are the focus of a traditional use by an aboriginal people that is of continuing importance to that people, and not regulated under the Heritage Conservation Act.*

**Strategy:** CVFC will comply with *Forest Planning and Practices Regulation Section 10*

CVFC will provide information sharing regarding planned activities to affected First Nations as identified by use of the Consultative Areas Database. The information sharing will include a 60-

day written notification and map showing the location of the proposed activity. CVFC will keep documentation of all responses received from First Nations.

CVFC will refer to information provided by the Archeology Overview Assessment when planning activities. If a proposed activity overlaps with a moderate or high risk polygon or a known archeological site, CVFC will consult an archeologist.

If a previously unknown cultural heritage resource is observed implementing a primary forest activity CVFC will immediately cease operations and:

- Record detailed information regarding the resource, resource location, time of finding and any other information deemed relevant.
- Within a time period consistent with the nature of the operation, assess the potential impact of the planned activity on the cultural heritage resource utilizing a Qualified Resource Professional.
- Communicate with affected First Nations regarding the details of the cultural heritage resource, planned activity and the outcome of the activity at a time agreed upon by the affected First Nations and CVFC.
- Modify the planned activity to mitigate the impact on the cultural heritage resource if the assessment determines it is necessary to do so.
- Keep a record of all steps taken with regard to the cultural heritage resource.

Once the above steps have been satisfied, depending on the arrived decision, operations may then resume.

#### **4.7 Visuals**

**Legal Reference:** *Government Actions Regulation* Section 7

**Objective:** *To conserve the quality of views from communities, major waterways and major highways by establishing areas known as scenic areas.*

**Strategy:** The licence holder will conduct a visual quality assessment for planned developments that are located in an area with a visual quality objective prior to applying for a cutting permit. Primary forest activities will be consistent with March 2014 changes to the Selkirk Forest District visual quality objectives. If necessary, visual quality objectives may be temporarily exceeded to salvage damaged timber or address forest health issues as per Sections 12(7) and 25.1 of the *Forest Planning and Practices Regulation*.

#### **4.8 Recreation**

**Legal Reference:** *Forest and Range Practices Act* Section 180 and 181

**Objective:** *To provide or coordinate trail based recreational opportunities within the boundaries of the Creston Community Forest, and where appropriate, in adjacent areas.*

**Applicable Area:**

Existing recreational areas can be cross referenced to the Forest Stewardship Plan maps located in Appendix A.

**Table 7.** Recreation trails located in CVFC’s management area.

Recreation Trail	Forest Development Unit Number and Name
Lady Slipper Trail	FDU # 2 – Goat Mountain
Thompson Rim Trail	FDU # 3 - Skimmerhorn
Thompson Rotary Trail	FDU # 3 - Skimmerhorn
Thompson Pack Trail	FDU # 3 - Skimmerhorn

**Strategy:**

- a) To manage existing trails that are the legal responsibility of the CVFC. Currently this includes:
  - Lady Slipper Trail
  - Thompson Rim Trail
  - Thompson Rotary Trail
  - Thompson Pack Trail
- b) To look at opportunities in CVFC’s management area to plan, coordinate, enhance, upgrade or build trails for hiking, skiing, mountain biking, snow shoeing and other non-motorized, human powered activities.
- c) To work with other municipalities including the Town of Creston, the Regional District of Central Kootenay, adjacent communities, First Nations and industrial companies and contractors and with local community groups and non-profit societies including the Trails for Creston Valley Society and Rotary Clubs to identify and promote new trail developments in the CVFC and adjacent areas.
- d) Where appropriate, to seek full or partial funding (both cash and in-kind) from all possible sources including all levels of government, industrial companies, contractors, non-profit societies, community groups and the general public for managing existing trails and building new trails.
- e) To recommend to the CVFC Board the annual level of funding for the management and maintenance of existing trails and for new trail construction. Funding to be approved by the Board of Directors and included in the annual budget of the CVFC.

#### **4.8.1 Recreation – Forest Education**

**Legal Reference:** *Forest and Range Practices Act* Section 180 and 181

**Objective:** *To educate the public on the Creston Valley Forest Corporation and the management of Creston’s forest resources.*

**Strategy:**

- a) Continue to provide school field trips during National Forestry Week.
- b) Where appropriate, submit articles to the local media and magazines,
- c) When applicable, provide updates to our webpage:  
[www.crestoncommunityforest.com](http://www.crestoncommunityforest.com)
- d) Look at opportunities to provide and organize field trips for the local public.

#### **4.9 Timber – Enhanced Resource Development Zones**

**Legal Reference:** *Kootenay Boundary Higher Level Plan Objective 7*

**Objective:** CVFC will support intensive forest management within those areas identified as Enhanced Resource Development Zones.

**Applicable Area:** The Enhanced Resource Development Zones are identified on the Forest Development Maps which are located in the Appendix of this report.

**Strategy:** CVFC will comply with Objective 7 of the *Kootenay Boundary Higher Level Plan*

## 5.0 Fire Maintained Ecosystems

**Legal Reference:** *Kootenay Boundary Higher Level Plan Objective 8*

**Objective:** To identify and restore areas within CVFC's management area that display ecological and historical characteristics of a fire maintained ecosystem. Specifically, these areas will be defined by the ICHxw Biogeoclimatic Zone and Natural Disturbance Type 4<sup>3</sup>.

**Strategy:** Since its inception in October 1997, CVFC has extensively used partial cut and shelterwood silviculture systems as part of its harvesting operations. The main reason has been to meet landscape level objectives such as Visual Quality Objectives and for Ungulate Winter Range. Another reason that is becoming more evident is to address the Wildland Urban Interface which is generally characterized by and located in fire maintained ecosystems. The Wildland Urban Interface is defined as 'any area where combustible wildland fuels are found adjacent to homes, farm structures, other outbuildings or infrastructure'. A large portion of CVFC's area is adjacent to homes and private land, therefore treating stands that fall victim to pest and disease epidemics will be crucial in reducing fire hazards.

CVFC's 2015 Management Plan Amendment # 2 identifies wildfire interface zones within its operating areas and zones that fall into Natural Disturbance Type 4. In addition, CVFC prepared the Town of Creston 2017 Community Wildfire Protection Plan which identifies areas located within some portions of the Community Forest and areas that are managed by the Town of Creston.

CVFC has already conducted some harvesting within its management areas and will continue to implement treatments based on field reconnaissance surveys.

Climate change is expected to alter ecosystems over the coming years. Southern British Columbia is expected to experience decreased precipitation and rising temperatures as well as an increase in fire events and drought. Elevated winter temperatures and drought stress are also expected to escalate insect and disease populations, resulting in higher rates of timber mortality. As a result, consideration of this will need to be made when planning for logging and silviculture operations.

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<sup>3</sup> These disturbance types characterize areas with different natural disturbance regimes. The disturbance agents are mostly wildfires, windstorms and to a lesser extent, insects and landslides. NDT4 is described as an ecosystem with frequent stand maintaining events that historically occur every 4 to 50 years.

## 5.1 Wildland Urban Interface Stocking Standards

CVFC's management area directly overlaps with areas containing the ICHxw Biogeoclimatic Zone and Natural Disturbance Type 4.

The ICHxw zone is described as 'closed stands of Douglas-fir and yellow pine with sporadic regeneration of cedar, hemlock and lodgepole pine. This zone also corresponds to Natural Disturbance Type 4 which is described as having a disturbance regime occurring every 4-50 years.

The Wildland Urban Interface is also an area of habitat fragmentation, introduction of invasive species and biodiversity loss. It has also been described as a 'zone of tension' as the edge between forest and open range/ grassland.

On that premise, CVFC has developed stocking standards and regimes that:

- 1) applies to the ICHxw bio-geoclimatic subzone
- 2) addresses the Wildland Urban Interface
- 3) corresponds to CVFC's silviculture harvesting systems.

The stocking standards consist of four basal area ranges and are to be applied to areas that meet the criteria of restoring the ecology of the ICHxw and Natural Disturbance Type 4.

None of the four basal area ranges have reforestation obligations because the management goal is to promote a more open forest with lower stocking levels and hence, re-establishing these areas to their historical ecology. These are to be managed as Wildland Urban Interface areas and may see future entries to remove additional volumes. The Wildland Urban Interface stocking standards are located in the Appendix of this document.

## 6.0 Invasive Plants

**Legal Reference:** *Forest and Range Practices Section 47 and the Forest Planning and Practices Regulation Section 17*

**Objective:** *For the purpose of section 47 [invasive plants] of the Act, a person who prepares a forest stewardship plan must specify measures in the plan to prevent the introduction or spread of species of plants that are invasive plants under the Invasive Plants Regulation, if the introduction or spread is likely to be the result of the person's forest practices.*

**Applicable Area:** This applies to all Forest Developments Units of Licence K3D

**Strategy:** In accordance with the *Forest and Range Practices Act* and the *Forest Planning and Practices Regulation*, CVFC will:

- a) To document and report invasive species that are on the Early Detection Rapid Response watch lists, eradication list for the Creston area and species found outside of the containment areas for the Creston area.
- b) To prevent the spread of invasive species through the use of best management practices.

c) To assist in, or carry out treatment and monitoring of invasive species as per recommendations provided by the Central Kootenay Invasive Species Society. Refer to the Central Kootenay Invasive Species Society updated invasive plant priority list for the Creston area: <http://ckiss.ca/species/terrestrial-riparian/>

Priority one is to report any species found that are on either the Provincial or Regional Early Detection Rapid Response watch lists, using either the Report-A-Weed application <http://www.reportaweedbc.ca/> or by emailing the Invasive Plant Specialist from the Ministry of Forests, Lands and Natural Resource Operations for the southern interior <https://www.for.gov.bc.ca/hra/Plants/ContactUs.htm>.

Priority two will be to focus on eradication species. These are species that are known to be in the Creston Valley, but with limited distribution. To date, only one of the listed species has been documented on a forestry road in CVFC's management area. The following is a list of the eradication species for the Creston Valley which may be amended from time to time:

- Baby's breath - *Gypsophila*
- Common Black locust - *Robinia pseudoacacia*
- Common Bugloss - *Anchusa officinalis*
- Leafy spurge - *Euphorbia esula*
- Meadow/brown/black knapweed - *Centaurea nigra*
- Plumeless thistle - *Carduus acanthoides*
- \*Policeman's helmet - *Impatiens glandulifera*
- Purple loosestrife - *Lythrum salicaria*
- Rush skeletonweed - *Chondrilla juncea*
- Scotch thistle - *Onopordum acanthium*
- Teasel - *Dipsacus*

\*Has been documented within CVFC's management area.

Contractors and field staff will be provided with a document containing photos and information pertaining to the eradication species for the Creston area. If found, CVFC is to be notified immediately.

CVFC will then:

- 1) Enter inventory data using the Report-A-Weed application.
- 2) Contact the Central Kootenay Invasive Species Society to determine how best to proceed with treatment and monitoring.

Priority three will be to focus on keeping containment species from spreading outside containment lines (see the most current priority list for the Creston area <http://ckiss.ca/species/terrestrial-riparian/> )

If a containment species is found outside of the containment area:

- 1) Enter inventory data using the Report-A-Weed application
- 2) Contact the Central Kootenay Invasive Species Society to determine how best to proceed with treatment and monitoring.

In order to reduce the spread of invasive species, including those that have been listed as established, CVFC staff and contractors will adhere to the following:

- While in the planning phase, review the Invasive Alien Plant Program Map database <http://maps.gov.bc.ca/ess/hm/iapp/> to determine what kind of infestations are present in the area of interest. Refer to the Central Kootenay Invasive Species Society most current priority list for the Creston area to determine how the identified species should be managed.
- Include management strategies in Site and Harvest Plans.
- Work in non-infested areas first and infested areas last.
- If possible, work in infested areas in the winter season.
- Clean equipment that is used for primary forest activities when moving from an area of known infestation to a non-infested area.
- Minimize soil disturbance.
- Seed exposed soils along roads and landings, as well as deactivated roads with appropriate plant species (Canada #1 seed as a minimum) within one year of disturbance.

Contractors and field staff will be provided with a *Best Practices for Preventing the Spread of Invasive Plants during Forest Management Activities* guidebook:

<https://www.for.gov.bc.ca/hra/plants/publications/Forestry-BP-09-11-2013-WEB.pdf>

## 7.0 Stocking Standards

**Legal Reference:** *Forest and Range Practices Act* Section 29 and *Forest Planning and Practices Regulation* Sections 16, 44 and 197

**Objective:** *A holder of a major licence or community forest agreement who harvests timber to which a forest stewardship plan applies must establish in accordance with the plan, the prescribed requirements and the standards, a free growing stand on those portions of the area of the harvest that are in the net area to be reforested.*

**Applicable Area:** All Forest Development Units of the Licence K3D area.

**Strategy:** Where required under the *Forest and Range Practices Act* to establish a free growing stand, CVFC will do so in accordance with the **2017 Nelson Forest District** stocking standards located in Appendix B of this document.

### 7.1 Subalpine Fir as a Preferred Species

Within the ESSF Biogeoclimatic zone, subalpine fir will be considered a preferred species if:

- it is above 1600 metres elevation or,
- it constitutes 50% of the stand volume immediately before harvesting occurs.

### 7.2 Naturally Occurring Regeneration

Where residual regeneration exists on site and the species is not included within the applicable stocking standard, the naturally occurring regeneration will be added as an acceptable species to the stocking standard. The minimum height will correspond with the highest minimum height within the applicable stocking standard.

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## Appendix A. Wildland Urban Interface Stocking Standards

ID	Name	BEC/ Subzone	Layer	Species		Regen Obligation	Additional Comments
				Preferred Species	Acceptable Species		
	Intermediate Cut <b>15.0-19.9 m2/ ha</b> Wildland Urban Interface (WUI)/ Natural Disturbance Type 4	ICHxw	1	Fdi, Py, Lw	Ep, At, Cw, Se, Hw, Bg, PI, Pw	No	This standard is required to reduce fuel hazards in the WUI over the long term by ensuring ladder fuels and crown densities can be managed to mitigate crown fire densities. The preferred species (Fdi, Lw, Py) are characteristic of fire maintained eco-systems (Natural Disturbance Type 4). Acceptable species can constitute up to 20% of the total Basal Area averaged throughout the block. Aesthetically, a preferred/ acceptable residual crop tree should appear in good form and health and will include the following criteria: DBH greater than or equal to 17.5 cm; no wounds greater than 400 cm <sup>2</sup> ; no dead or broken tops; no crooks and or major sweeps; should be free of obvious signs of mistletoe, conks or other visible signs of disease. Block will be periodically assessed every 5-7 years to ensure stand characteristics of the WUI are being maintained and to determine the need for additional treatments (i.e. hand-piling of debris, removal of ladder fuels by pruning).
	Intermediate Cut <b>20.0-24.9 m2/ ha</b> Wildland Urban Interface (WUI)/ Natural Disturbance Type 4	ICHxw	1	Fdi, Py, Lw	Ep, At, Cw, Se, Hw, Bg, PI, Pw	No	This standard is required to reduce fuel hazards in the WUI over the long term by ensuring ladder fuels and crown densities can be managed to mitigate crown fire densities. The preferred species (Fdi, Lw, Py) are characteristic of fire maintained eco-systems (Natural Disturbance Type 4). Acceptable species can constitute up to 20% of the total Basal Area averaged throughout the block. Aesthetically, a preferred/ acceptable residual crop tree should appear in good form and health and will include the following criteria: DBH greater than or equal to 17.5 cm; no wounds greater than 400 cm <sup>2</sup> ; no dead or broken tops; no crooks and or major sweeps; should be free of obvious signs of mistletoe, conks or other visible signs of disease. Block will be periodically assessed every 5-7 years to ensure stand characteristics of the WUI are being maintained and to determine the need for additional treatments (i.e. hand-piling of debris, removal of ladder fuels by pruning).
	Intermediate Cut <b>25.0-29.9 m2/ ha</b> Wildland Urban Interface (WUI)/ Natural Disturbance Type 4	ICHxw	1	Fdi, Py, Lw	Ep, At, Cw, Se, Hw, Bg, PI, Pw	No	This standard is required to reduce fuel hazards in the WUI over the long term by ensuring ladder fuels and crown densities can be managed to mitigate crown fire densities. The preferred species (Fdi, Lw, Py) are characteristic of fire maintained eco-systems (Natural Disturbance Type 4). Acceptable species can constitute up to 20% of the total Basal Area averaged throughout the block. Aesthetically, a preferred/ acceptable residual crop tree should appear in good form and health and will include the following criteria: DBH greater than or equal to 17.5 cm; no wounds greater than 400 cm <sup>2</sup> ; no dead or broken tops; no crooks and or major sweeps; should be free of obvious signs of mistletoe, conks or other visible signs of disease. Block will be periodically assessed every 5-7 years to ensure stand characteristics of the WUI are being maintained and to determine the need for additional treatments (i.e. hand-piling of debris, removal of ladder fuels by pruning).
	Intermediate Cut <b>30.0-34.9 m2/ ha</b> Wildland Urban Interface (WUI)/ Natural Disturbance Type 4	ICHxw	1	Fdi, Py, Lw	Ep, At, Cw, Se, Hw, Bg, PI, Pw	No	This standard is required to reduce fuel hazards in the WUI over the long term by ensuring ladder fuels and crown densities can be managed to mitigate crown fire densities. The preferred species (Fdi, Lw, Py) are characteristic of fire maintained eco-systems (Natural Disturbance Type 4). Acceptable species can constitute up to 20% of the total Basal Area averaged throughout the block. Aesthetically, a preferred/ acceptable residual crop tree should appear in good form and health and will include the following criteria: DBH greater than or equal to 17.5 cm; no wounds greater than 400 cm <sup>2</sup> ; no dead or broken tops; no crooks and or major sweeps; should be free of obvious signs of mistletoe, conks or other visible signs of disease. Block will be periodically assessed every 5-7 years to ensure stand characteristics of the WUI are being maintained and to determine the need for additional treatments (i.e. hand-piling of debris, removal of ladder fuels by pruning).
-	Intermediate Cut <b>30-35 m2/ ha</b> Wildland Urban Interface (WUI)/ Natural Disturbance Type 4	ICHxw	1	Fdi, Py, Lw, Ep, At Cw, PI	Se, Pw Hw, Bg	No	This standard is required to reduce fuel hazards in the WUI over the long term by ensuring ladder fuels and crown densities can be managed to mitigate crown fire densities. The preferred species (Fdi, Lw, Py) are characteristic of fire maintained eco-systems (Natural Disturbance Type 4). Acceptable species can constitute up to 20% of the total Basal Area averaged throughout the block. Aesthetically, a preferred/ acceptable residual crop tree should appear in good form and health and will include the following criteria: DBH greater than or equal to 17.5 cm; no wounds greater than 400 cm <sup>2</sup> ; no dead or broken tops; no crooks and or major sweeps; should be free of obvious signs of mistletoe, conks or other visible signs of disease. Block will be periodically assessed every 5-7 years to ensure stand characteristics of the WUI are being maintained and to determine the need for additional treatments (i.e. hand-piling of debris, removal of ladder fuels by pruning).