# BC Timber Sales Cariboo - Chilcotin Business Area



# CARIBOO-CHILCOTIN BUSINESS AREA FOREST STEWARDSHIP PLAN FSP ID# 828

(QUESNEL TSA, WILLIAMS LAKE TSA AND CASCADIA TSA WITHIN THE QUESNEL NATURAL RESOURCE DISTRICT)

FSP Term: 5 years (2020-2024)

Submitted by

Brian Rogers, RFT

Timber Sales Manager Cariboo-Chilcotin Buisness Area

Authorized RPF Signature

Han!

Date Signed

Date Signed

WHI GOOWEH, RPF BETS Planning Officer

Cariboo-Chiloon Buisness Area

Wilf Goerwell, R.P.F Mathan Davis, R.P.F

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# **Preamble**

BC Timber Sales (*BCTS*) Cariboo-Chilcotin Business Area has prepared this *Forest Stewardship Plan* (*FSP*) for operations within the Central-Cariboo and Quesnel Natural Resource Districts including the Cascadia *TSA*.

BC Timber Sales (*BCTS*) was founded in 2003 with a mandate to provide the cost and price benchmarks for timber *harvested* from public land in British Columbia. Through 12 Business Areas and an operational presence in 33 locations, *BCTS* manages some 20 percent of the provincial Crown allowable annual cut.

**Goal:** Provide credible representative price and cost benchmark data for the Market Pricing System through auctions of timber *harvested* from public land in British Columbia.

## **Objective(s):**

- 1. Sell the full BC Timber Sales apportionment over the business cycle, consistent with safe practices, sustainable forest management, and reconciliation with Indigenous peoples.
- 2. Generate direct net revenue and indirect revenue for the Province over the business cycle.
- 3. Continuous business improvement within *BCTS*, across government and with third parties.

#### Purpose of the FSP

The Forest and Range Practices Act (FRPA) Section 3(1) requires that an FSP be prepared and approved prior to constructing roads or harvesting. FSP's are landscape level plans with a term for up to five years but can be extended for additional terms. They are landscape level plans and only give a very general idea of where forest activities might take place but are not required to show the location of cutblocks and roads. Instead, FSPs provide the government with results and/or strategies that the government can use to enforce compliance with objectives set by government (OSBGs). Specific plans for road and harvest cutblock development are included in the BCTS Annual Sales Schedule which is available to the public at the following location: https://www2.gov.bc.ca/gov/content/industry/forestry/bc-timber-sales.

Following approval of the *FSP*, the Timber Sales Manager (*TSM*) can award: Timber Sale Licences (*TSL's*), Forest Licenses to Cut (*FLTS*) or issue Road Permits (*RP's*) on a competitive basis to registrants of the *BCTS* program. The *FSP* also includes the reforestation stocking standards to be achieve by the *TSM*'s silviculture program, and to FSR *roads* constructed and maintained by the *TSM*.

However, outside of the legal realm of the FSP, BCTS initiates, or participates in, a wide range of activities, planning, processes and initiatives that are directly related to the management of forest and range values. Many of these initiatives derive from the commitments made in the results, strategies and measures specified in this FSP. Some of these external processes and initiatives include:

- 1. *BCTS* Operating Plans.
- 2. First Nations consultation processes and agreements (in addition to the FSP).
- 3. Public and Stakeholder consultation (in addition to the FSP).
- 4. Timber Supply Reviews (TSRs).
- 5. Cumulative effects planning (provincial frameworks and locally).
- 6. BCTS Safety Program and Safe Companies initiative.
- 7. BCTS Sustainable Forest Management certification and Environmental Management System.
- 8. Development of professional practice guidance documents.

- 9. Provincial resource working groups (in various areas of forest management).
- 10. Localised resource working groups.
- 11. Local Plans such as South Chilcotin Plan, Anaheim Lake Round Table, and others.

Where *BCTS* is operating within the same *landscape unit* as other tenure holders (Major Licensees, Community Forest Agreements, First Nation Woodland Licensee and woodlots), to ensure that the potential cumulative impact and consistency of *results* and *strategies* are considered, the following approach will be used. Within shared *landscape units*, *BCTS* will provide planning information, offer to exchange information, collaborate and coordinate with each licence or agreement holder, in relation to the following applicable *FRPA* values:

- 1. Landscape Biodiversity: Seral Stage, Patch Size, OGMAs, and Connectivity
- 2. Water Quality: Community Watershed and Watershed Hydrology
- 3. Fish / Riparian: Fisheries Sensitive Watersheds
- 4. Recreation: Backcountry/Wildcraft (access management)
- 5. Visual Quality: Shared Viewsheds
- 6. Wildlife: Caribou and Ungulate Winter Range

This FSP is structured as follows:

**Section 1 Administration & Interpretation** provides definitions and acronyms used in the *FSP*, link to specific legislation and authorities from government.

**Section 2 Term** provides information on date of submission, term and commencement of the FSP.

**Section 3 Application of the** *FSP* specifies what the *FSP* applies to and which agreement holder. It includes list of *TSL*'s approved under the preceding *FSP*, but not awarded (auction) at the time of *FSP* submission for approval.

**Section 4 Objectives,** *Results* and *Strategies* specifies the *results* and *strategies* consistent to the extent practicable with each applicable *objective set by government*.

**Section 5 Measures** specifies measures for *natural range barriers* and *invasive plants* as required by *FPPR* sections 17 and 18.

**Section 6 Stocking Standards** provides background information on the requirements for stocking standards; the application of stocking standards generally for each *cutblock* and any specified variances from the stocking standards contained within this plan.

**Appendices** including stocking standards.

# 1.0 Interpretation

#### 1.1 Definitions

Unless specifically indicated otherwise, terms used in this *Forest Stewardship Plan (FSP)* are consistent with definitions in relevant British Columbia acts, regulations and supporting documents. The following definitions in *italics* apply to the whole document. Definitions appearing in the *results* and *strategies* are also presented in *italics* for ease of recognition.

- "Act" means the Forest and Range Practices Act, RSBC, c.69.
- "Assessment" means an assessment of a FRPA value by a Qualified Resource Professional (QRP).
- "Access Control" means a barrier located on a road which makes the road beyond the access control point impassable with a motor vehicle, excluding motorcycles, as defined under the Motor Vehicle Act. Types of access control include, but are not limited to, gates, cement blocks, earth berms, deep trenches, ripping the road surface for greater than 200 meters (m) where practicable, or the piling of debris on the road. If the access control(s) is rendered ineffective the TSM or FSP holder will, upon identification through inspections, stakeholder notification or when made known, re-establish the access control(s) as soon as practicable. The access control(s) is to remain in place until such time as the road has been deactivated.
- "Adjacent" as defined in FPPR 65(1) means "an area that is sufficiently close to a *cutblock* that, due to its location, could directly impact on, or be impacted by, a forest practice carried out within the *cutblock*."
- "Agreement" means an agreement listed in section 3.2, unless this FSP no longer applies to that agreement.
- "Agreement Holder" is defined in FPRR section 1(1) and means holder of an agreement under the Forest Act, other than a woodlot license and for the purposes of this FSP, applies to the agreement holders listed in section 3.2, or any successor or assignee of that agreement, unless this FSP no longer applies to that agreement holder.
- "Annual Developed Volume (ADV)" means a road or a cutblock are considered ready to sell when referrals with stakeholders, consultation with First Nations, and all field work including operational layout, assessments and timber cruising are complete.
- "Backcountry" means an area comprised of Recreational Opportunity Spectrum (ROS) experiences of semi-primitive motorized and/or semi-primitive non-motorized and/or primitive as defined by the British Columbia Ministry of Forests Recreation Manual, Chapter 6, Figure 1: ROS Delineation Criteria on-line version of September 1, 2006.
- "Beetle management unit (BMU)" means a management area, within which a landscape level beetle management strategy, as defined by the Ministry of Forests, Lands, Natural Resource Operations and Rural Development, is implemented.
- "Bull Trout" (Salvelinus confluentus) is referred to in the CCLUP as "Dolly Varden" (Salvelinus malma) where Salvelinus confluentus is the species that is being managed for.
- "Careful sanitation harvest practices" means harvesting with the following requirements:
  - 1. a mark to cut system is used to target currently infested trees for *harvest*,
  - 2. a detailed ground-based survey is completed before *harvesting*,
  - 3. where practicable new skid trails must be <5 metres wide, and use existing trails where available,
  - 4. no new landings can be constructed within an *OGMA*. *Roads* can only be constructed within an *OGMA* where no other practicable option exists,
  - 5. within *OGMA*s, old attack (grey or red non-infested trees) must be left on site where they are required to be felled due to safety concerns,

- 6. excluding *roads*, trails and landings, limit the *harvest* or damage of non-infested trees to 10% of the total volume of currently infested stems to be removed,
- 7. stumps must be 30 centimeters (cm) or lower on the uphill side, unless a higher stump is required to address hand-falling safety concerns, and
- 8. all *harvesting*, hauling of fibre and removal or burning of fresh debris (>2m long and >20cm in diameter) must be completed prior to April 1<sup>st</sup> where practicable. Where this is not practicable a *mitigation plan* will be developed and submitted to *FLNRORD*.
- "CCLUP 90 Day Report" means The Cariboo-Chilcotin Land-Use Plan 90-Day Implementation Process Final Report, February 1995.
- "Community Watershed Assessment (CWA)" means an assessment of the cumulative hydrological effects of existing and proposed harvesting and road construction within a community watershed, completed by a Qualified Resource Professional.
- "Conclusion of harvest(ing)" means when all fibre has been harvested and been delivered from the cutblock.
- "Cutblock" means a specific area with well-defined boundaries:
  - 1. in which the TSM or FSP holder has proposed for harvest, or
  - 2. in which a holder of a License has harvested or is harvesting timber under an authorization, or
  - 3. in which a holder of a *License* is authorized to *harvest* timber but where *harvesting* has not occurred.
- "Diameter at Breast Height (dbh)" means the diameter of a tree in centimeters at 1.3 metres height from the ground, determined as per requirements contained in the current Timber Pricing Branch Cruising Manual
- "Essential for insect control" means where harvest is essential to curtail severe damage to forest values in a BMU classified as suppression in the most recent District forest health strategy for that insect pest, and there are >75 trees in an infestation site(s) and careful sanitation harvest practices are conducted only within the infestations site(s), or there are 15-75 trees in an infestation site(s) and careful sanitation harvest practices are conducted only within the infestation site(s), after trap trees have first been used to the extent possible and where effective.
- "Equivalent Clearcut Area (ECA)" means the proportion of the overall forest land-base area within a watershed, or specified sub-units of a larger watershed, that has been disturbed (e.g. harvested, cleared, affected by forest pathogens or insects, or burned, etc.), with consideration given to the state of hydrologic recovery within the area disturbed. Hydrologic recovery, and the magnitude of the ECA impact, is influenced by numerous factors including silvicultural system used, level of forest stand regeneration, and the location and distribution of disturbance within the watershed. The method to be used to determine ECA is described in Appendix 2 of the Coastal Watershed Assessment Procedure Guidebook (CWAP) Interior Watershed Assessment Procedure Guidebook (IWAP) Second Edition Version 2.1 April 1999 https://www.for.gov.bc.ca/tasb/legsregs/fpc/fpcguide/wap/wapgdbk-web.pdf, or a Qualified Resource Professional defines the specific assumptions and approaches utilized in developing the ECA calculation. ECAs will be calculated using the most up to date data within the Forest Tenure Administration system (harvested, approved, and submitted from all licences within the watershed). The alternate methodology will be submitted to FLNRO.
- "Forest Development Unit (FDU)" as defined in FPPR 1(1).
- "FSP Holder" means the Forest Act agreement holders listed in the Forest Stewardship Plan (FSP) Appendix A, or any successor or assignee of that agreement, unless this FSP no longer applies to that agreement holder.
- "Forest Stewardship Plan (FSP)" is a map-based, landscape-level plan of potential forest development activities that are intended to take place in the FDU described in the plan, over a period. It describes the way an area will be managed for a variety of resources including all primary forest activities. Through

legislation and regulation, the FSP must address the *objectives set by government* for the land for all FRPA values.

"Furbearers" as defined in the Wildlife Act Designation and Exemption Regulation, Section 16, "Fur Bearing Animals."

"High value wildlife tree" means a tree over 37.5 centimeters dbh among the target residual conifer species or over 20 centimetres dbh for deciduous species, and that falls within one of the wildlife tree classes of 2 through 8 as shown in Table 1.

**Table 1 Wildlife Tree Classes (***LAO* **Definition)** 

Class	Description	Characteristics
1	Live/Healthy	No signs of decay, deformities or other health issues.
2	Live/unhealthy	Internal decay or growth deformities (including insect damage, broken tops) dying tree
3	Dead	Hard heartwood; needles and twigs present; roots stable
4	Dead	Hard heartwood, no needles/twigs; 50% of branches lost; loose bark; top usually broken; roots stable
5	Dead	Spongy heartwood; most branches/bark absent; internal decay; roots stable for larger trees; roots of smaller trees beginning to soften
6	Dead	Soft heartwood; no branches or bark; sapwood/heartwood sloughing from upper bole; lateral roots of larger ones softening; smaller ones unstable
7-8	Dead	Soft heartwood; stubs; extensive internal decay; outer shell may be hard; lateral roots completely decomposed; hollow or nearly hollow shells.

<sup>&</sup>quot;Harvest" is defined in FPPR 1(1).

"Intermediate crown classes" means trees with crowns either below or extending into the canopy formed by co-dominant and dominant trees; receiving little direct light from above and none from the sides; usually with small crowns considerably crowded on the sides.

"Landscape Units (LU)" are planning areas whose boundaries are based on topographic or other landscape geography features. They range in size from 5,000 to 100,000 ha and encompass a single entire watershed or a series of small entire watersheds. Landscape units are sufficiently large to encompass ecological landscape processes. In the Cariboo they are defined by the spatial data set: Cariboo-Chilcotin Landscape Units and have specific legal targets to maintain landscape biodiversity.

"Lakeshore Management Zone (LMZ)" means a management zone of a specified width adjacent to a classified lake, as defined by the spatial dataset: Cariboo-Chilcotin Lake Management Classes.

"Licensed Waterworks" means a water supply intake or a water storage and delivery infrastructure that is licensed under the Water Sustainability Act or authorized under an operating permit issued under the Drinking Water Protection Act.

<sup>&</sup>quot;Infestation site" means a contiguous bark beetle infestation of trees which includes all currently infested trees that are separated by no more than 50m from any other currently infested tree or trees.

<sup>&</sup>quot;Interface Fuel Break" means fuel breaks where treatments are authorized by the District Manager to address protection of property and public safety by reducing the risk of ignition and spread of wildfire in key areas adjacent to the community.

<sup>&</sup>quot;Licence" means an agreement under the Forest Act.

- "LU-BEC unit" means the association of a specific landscape unit and BEC subzone or subzone-variant.
- "Made or Makes Known" are items communicated to the TSM from the Statutory Decision Maker or a District Manager or designate through written correspondence or electronic media.
- "Major wildlife features" are defined as the following as per FRPA GAR 11:
  - a) bear den sites;
  - b) bald eagle nests;
  - c) osprey nests;
  - d) great blue heron nests;
  - e) fisheries sensitive feature;
  - f) a nest of a category of species at risk that is limited to birds; and
  - g) mineral lick or wallows.
- "Mature birch" means Betula papyrifera older than 60 years.
- "Measure" means to specify an action for *invasive plants* and *natural range barriers* that will effectively achieve its intended *result* and be enforceable.
- "Merchantable" means 12.5cm dbh for pine and 17.5cm dbh for all other species.
- "Ministry dispute resolution process" means a meeting between the TSM or FSP holder, applicable District Manager and the affected party.
- "Mitigation action" means activities, process(es) or actions developed by a *Qualified Resource Professional* that have the purpose of addressing the impacts on affected parties, that are a *result* of harvesting and/or road construction activities under this plan.
- "Mitigation strategy" is a plan developed to mitigate the effects of harvesting and/or road construction on an affected party, that specifies:
  - 1. what mitigation actions are to be undertaken; and
  - 2. who is responsible for undertaking the *mitigation actions*; and
  - 3. where the *mitigation actions* will occur; and
  - 4. when the *mitigation actions* will be completed.
- "Natural Disturbance Type (NDT)" as defined by the Biodiversity Guidebook (1995), means an area that is characterised by a natural disturbance regime.
- "Natural Range Barrier" is a river, rock face, dense timber or any other naturally occurring feature that stops or significantly impedes livestock movement to and from an *adjacent* area.
- "No Harvest" means an area of land other than a park, protected area or ecological reserve, where primary forestry activities are not permitted unless otherwise specified in the results and strategies of this FSP.
- "Objectives set by Government (OBSG)" as defined in FRPA section 1(1).
- "Old-Growth Management Area (OGMA)" means an area that is subject to old growth management objectives established under LAO 8 and is defined by the spatial data set Cariboo-Chilcotin Old Growth Management Areas.
- "Old seral" means forest stands which meet the required ages by BEC zone and NDT as listed in Table 2.

Table 2: From LAO Minimum Ages for Old Seral Forest Stands

BEC Zone	NDT	Age (in years)
ICH, ESSF, MS, SBS, SBPS	3	>140
IDF(PINE GROUP), BG(PINE GROUP)	4	>140
ESSF	5	>140
MH, CWH, SBS, ICH, ESSF,	1 + 2	>250
IDF(FIR GROUP), BG(FIR GROUP)	4	>250

- "Overtopped crown classes" means trees with crowns entirely below the general level of the crown cover receiving little or no direct light from above or from the sides.
- "Permanent OGMA rotating" means an old growth management area (OGMA) that contributes to the long term OGMA target area but can be harvested under the conditions specified in the LAO.
- "Permanent OGMA static" means an old growth management area (OGMA) which retains a fixed location in the landscape.
- "Primary forest activity" means one or more of the following:
- a) timber harvesting,
- b) silviculture treatments,
- c) wildlife habitat enhancements, and
- d) road construction, maintenance and deactivation.
- "Primary Fuel Break" means a strategic landscape level fuel break outside interface fuel breaks, where treatments are authorized by the District Manager for the purpose of influencing wildfire behavior and facilitating fire-fighting activities.
- "Primary Old Seral Forest Characteristics" means, within an interface or primary fuel break, large (>37.5 cm dbh) and very large (>57.5 cm dbh) trees, large coarse woody debris, and dead and declining trees where they do not represent a significant safety hazard.
- "Primary roads" means roads that provide access for timber harvesting and remain operational after primary forest activities are complete on the area that the roads were intended to access.
- "Qualified Resource Professional (QRP)" means a registered member in good standing with a professional association whose training, ability and experience makes the member professionally competent in the relevant area of practice.
- "Referral period" means the time specified by the TSM seeking comments. The period will be a minimum of 60 days unless a shorter period has been endorsed by FLNRORD.
- "Report-a-Weed" means the Report-a-Weed and Report-Invasives-BC website found at http://reportaweedbc.ca/.
- "Road" has the meaning given to it in FPPR 1.
- "Roaded access" means the presence or absence of roads and road networks that provide reasonably apparent routes of access to an area. Roaded access is provided to a location when the location is within 1 kilometer of a road where the subgrade of the road has not been de-compacted as part of a road deactivation program or fully covered with replaced overburden. Roaded access may be temporarily or permanently barricaded, may have had bridge superstructures and/or major crossings removed, or may be otherwise deactivated.
- "Result" means a description of (a) measurable or verifiable outcomes in respect of a particular established objective, and (b) the situations or circumstances that determine where in a *forest development unit* the outcomes under paragraph (a) will be applied.
- "Safety hazard" means a situation or circumstance the TSM or TSL holder, or FSP holder determines to be a potential source of harm to workers or the general public based on WorkSafe BC regulations and policies. Safety hazards include but are not limited to danger trees (snags), inadequate visibility, falling objects, steep slopes, unstable terrain, etc.
- "Scenic area" is an area defined in the Cariboo-Chilcotin Land-Use Plan Land Act Order spatial data set Scenic areas and Scenic corridors as displayed in Appendix H Maps.
- "Secondary roads" means a road that is only required for a limited period of time during the specific forest management phase in a *cutblock*. These *roads* are deactivated once the phase is completed.
- **"Shallow and moderate snowpack zones"** mean the following *biogeoclimatic* units within the *CCLUP* area: BG-all subzones, IDFxm, IDFxw, IDFdk3, IDFdk4, SBPSxc, and those areas of SBSmh lying south and west of Quesnel.

- "Significant Wildlife Tree" means a coniferous tree over 65.5cm dbh, and over 20cm dbh for deciduous species, and trees containing a nest of a bald eagle, osprey, great blue heron or a category of species at risk limited to birds, and trees identified in the field as being used by wildlife for denning.
- "Spawning habitat" includes gravel and cobble sections in smaller, lower order rivers and streams across the province. Spawning habitat is, but not limited to, low stream gradients (1.0-1.5%) in S1 and S2 streams, low stream gradient (3%) in S3 streams, clean gravel (≤20 mm diameter), water velocities of 0.03-0.80 m/s, and cover in the form of undercut banks, debris jams, pools, and overhanging vegetation.
- "Sustainable Resource Management Plan (SRMP)" locally, these include the Anahim Round Table Sub-Regional Plan, Horsefly Sub-Regional Management Plan, South Chilcotin Sub-Regional Plan, Quesnel Sub-Regional Management Plan and the Williams Lake Sub-Regional Management Plan. They address Cariboo-Chilcotin Land Use Plan (CCLUP) strategies and targets on an area-specific basis through detailed objectives and strategies for the management of natural resources and the maintenance of environmental values. The SRMP's were endorsed by government and resource stakeholders and are non-legal guidance.
- "Strategy(ies)" means a description of (a) measurable or verifiable steps or practices\_that will be carried out in respect of a particular established objective, and (b) the situations or circumstances that determine where in a *forest development unit* the steps or practices will be applied.
- "Suppression" means a bark beetle control strategy designed to reduce or keep the outbreak to a size and distribution that can be handled by treating 80% or more of the infestations found on the most current aerial overview inventory in the most *current* district forest health strategy.
- "Thinning from below" means a silviculture treatment in which trees are removed from intermediate and overtopped crown classes leaving the larger trees on site.
- "Transition OGMA" means an old growth management area (OGMA) which only exists until it is replaced by other old forest in that LU-BEC unit or 20 years from June 25, 2010 LAO, whichever is less.
- "Wildlife habitat area (WHA)" as defined in FPPR 1, means a wildlife habitat area
  - a. continued under section 180 and 181 [grandparenting specified designations] of the Act, or
  - b. established under the Government Actions Regulation.
- "Wildlife tree retention area (WTRA)" defined in FPPR 1(1) is synonymous with Wildlife Tree Patch or 'WTP'.

# 1.2 Acronyms

The following acronyms in *italics* are used within this Forest Stewardship Plan:

- "AUM" means Animal Unit Month.
- "BCTS" means BC Timber Sales.
- "BMU" means Beetle Management Unit.
- "BEC" means Biogeoclimatic Ecosystem Classification.
- "BEO" means Biodiversity Emphasis Objective.
- "CCLUP" is the acronym for the Cariboo-Chilcotin Land-Use Plan.
- "CP" means Cutting Permit.
- "CWD" means Coarse Woody Debris.
- "DDM" means Delegated Decision Maker.
- "FLNRORD" means Ministry of Forests, Lands, Natural Resource Operations and Rural Development.
- "GAR" means Government Action Regulation.
- "GWM" means General Wildlife Measures.
- "ECA" means Equivalent Clearcut Area
- "FDU" means Forest Development Unit.

- "FLTC" means Forestry Licence to Cut.
- "FPPR" means Forest Planning and Practices Regulation.
- "FRPA" means Forest and Range Practices Act.
- "FSP" means Forest Stewardship Plan.
- "FSW" means Fisheries Sensitive Watershed.
- "GBA" means Grassland Benchmark Area(s).
- "GIS" means Geographic Information System.
- "HCA" means Heritage Conservation Act.
- "LMZ" means Lakeshore Management Zone.
- "LAO" means Ministerial Land Act Order for the Land Use Objectives for the Cariboo-Chilcotin Land-Use Plan (*CCLUP*) Area, signed April 18, 2011 and consolidated to September 6, 2018.
- "LU" means Landscape Unit(s).
- "MFZ" means machine free zone.
- "OGMA" means Old Growth Management Area.
- "OSBG" means Objectives set by Government.
- "ORP" means Qualified Resource Professional.
- "RMA" means Riparian Management Area and is the combination of the RMZ and RRZ together.
- "RMZ" means Riparian Management Zone.
- "RP" means Road Permit.
- "RRZ" means Riparian Reserve Zone.
- "SAR" means Species at Risk.
- "SDM" means Statutory Decision Maker.
- "TSA" means Timber Supply Area.
- "TSL" means Timber Sale Licence.
- "TSM" means Timber Sales Manager for the Cariboo-Chilcotin Business Area of BC Timber Sales.
- "VQO" means Visual Quality Objective.
- "WHA" means Wildlife Habitat Area.
- "WTP" means Wildlife Tree Patch.
- "WTR" means Wildlife Tree Retention.
- "WTRA" means Wildlife Tree Retention Area.

# 1.3 Legal References

Forest Act: 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

Forest Planning and Practices Regulation (FPPR):

http://www.bclaws.ca/Recon/document/ID/freeside/14\_2004

Forest Recreation Regulation (FRR): <a href="http://www.bclaws.ca/Recon/document/ID/freeside/16\_2004">http://www.bclaws.ca/Recon/document/ID/freeside/16\_2004</a>

CCLUP 90-Day Report: https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-

industry/natural-resource-use/land-water-use/crown-land/land-use-plans-and-objectives/cariboo-

region/cariboochilcotin-rlup/lup 90 day implementation.pdf

Land Act Order (LAO): https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-

industry/natural-resource-use/land-water-use/spawningcrown-land/land-use-plans-and-objectives/cariboo-region/cariboochilcotin-rlup/legal-direction/cariboochilcotin\_rlup\_luor\_6sep2018consolidated.pdf

#### 1.4 Relevant Date for Legislation and Objective References

In this *FSP*, unless this *FSP* specifies otherwise, reference to legislation, an established objective, an establishment of an area referred to in section 14(3)(a) to (i) of *FPPR* or an order made by government means that legislation, established objective, notice, designation, area or order as it was on the date of submission of this *FSP*.

## 1.5 Application of Legislation

This *FSP* has been designed considering the legal and contextual relationship between the Land Act Order applicable to the Cariboo-Chilcotin Land-Use Plan area, orders established under Government Actions Regulations that establish objectives, the *CCLUP* 90-day Implementation Process Final Report, Objectives set by *FPPR* and associated practice requirements.

## 1.6 Definitions in Legislation

In this *FSP*, unless this *FSP* specifies, words and phrases defined in *FRPA* or the *Forest Act* and associated regulations under them have the same meaning as those definitions, as they were on the date of this *FSP* submission.

#### **2.0 Term**

#### 2.1 Date of Submission

The date of submission of this FSP for approval is April 24, 2020

#### **2.2 Term**

For the purposes of FRPA 6(1)(a), the term of this FSP is 5 years, commencing on the date specified in section 2.3 of this FSP, unless:

- 1. the TSM elects to replace it with another approved FSP, or
- 2. it is extended pursuant to FRPA.

#### 2.3 Commencement of Term

For the purposes of Section 6(1)(b) of the Act, the term of this FSP commences on the date specified by the delegated decision maker approving this plan.

# 3.0 Application

# 3.1 FSP Holder -Timber Sales Manager

The primary holder of this *FSP* is the *Timber Sales Manager (TSM)* for the BC Timber Sales (*BCTS*) Cariboo-Chilcotin Business Area. The other *FSP Holders* are listed in Appendix A.

# 3.2 Application to Agreements and Holders of Agreements

Within the *FDU* as defined in section 4.1 and 4.2, on or after the date this *FSP* commences, as specified in section 2.3, this *FSP* applies to:

- *Timber Sale Licences (TSL)* issued, *Road Permit (RP)* issued, *Forestry licence to cuts (FLTC)* issued, any contract agreement entered into to engineer *road* networks, complete silviculture activities and construct fences, by the *TSM*, and
- Cutting Permits and Road Permits issued by the District Manager to an FSP holder.

# **4.0 Forest Development Unit**

## **4.1 Forest Development Unit**

For the purposed of section FRPA 5(1)(a)(ii) and FPPR 14(1)(a) the FDU that applies to the TSM, an agreement holder, and an agreement under this FSP are:

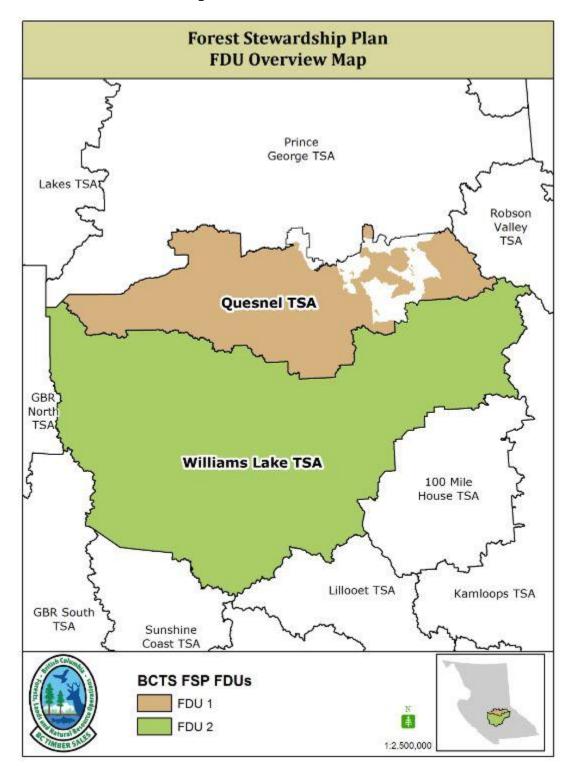
- 1. <u>FDU#1</u> the Quesnel TSA, portions of the Cascadia TSA within the Quesnel Natural Resource District, and
- 2. *FDU*#2 the Williams Lake *TSA*.

These areas are identified on the overview map in section 4.2 and in detailed maps in Appendix H - Maps. Areas excluded from the FDU(s), not necessarily indicated on map due to scale include: Indian reserves, First Nations title lands, federal lands, private lands, woodlot licence areas, tree farm licence areas, community forest agreements, First Nations woodland licences, ecological reserves, parks, and all other areas where timber extraction under the Forest Act *agreements* are prohibited.

Note: With approval of this this *FSP*:

- FDU #1 will replace FDU #1 and FDU #2 found in expiring BCTS FSP ID# 176 Quesnel, and
- FDU #2 will replace FDU #1 found in expiring BCTS FSP ID#203 Williams Lake.

# 4.2 FDU Overview Map



# 4.3 Identify Forest Development pursuant to Section 14 of FPPR

Table 3A Cutblocks and associated roads identified pursuant to FPPR Section 14(2)&(3)					on 14(2)&(3)	
Quesnel (FDU 1) TSL(s)			Quesnel (FDU 1) Road Permits			
A56007	A65555	A70443	R22399	R22027	R22837	
A56030	A65556	A70460	R21385	R22404	R22265	
A57795	A65557	A71064	R22142	R22223	R22247	
A80548	A65560	A71066	R22827	R22693	R22826	
A90169	A65565	A80531	R21918	R22262	R22028	
A90170	A65571	A80533	R22375	R22717	R22267	
A94277	A65904	A80534	R22797	R22237	R22836	
A55568	A68350	A80544	R21849	R21389	R22592	
A58405	A68352	A80561	R22143	R22385	R22268	
A59781	A69085	A80555	R21498	R22178	R22511	
A60387	A69906	A80562	R21325	R22359	R21919	
A60485	A69907	A81792	R22564	R22367	R22768	
A60491	A69908	A81806	R22248	R22716	R22695	
A63971	A70363	A90700	R21933	R22702	R21288	
A64688	A70367	A95338	R22405	R22389	R22264	
A64860	A70368	A95341	R21821	R22596		
A64861	A70434	A95714	R21934	R22594		
A65553	A70435	A95765	R21818	R22838		
A65554	A70441	TA0674	R21474	R22480		
		TA1080	R22254	R22718		
Williams Lake (	FDU 2) TSL(s)		Williams Lake (FDU 2) Road Permtis			
A79264	A94821	TA0117	R21488	R22782	R22751	
A91233	A94824	TA0129	R21716	R22746	R22688	
A91726	A94825	TA0130	R21625	R21871	R22749	
A92514	A95080	TA0240	R20861	R21878	R22298	
A92515	A95130	TA0277	R20930	R21893	R22356	
A92564	A95268	TA0278	R20908	R22167	R22833	
A92658	A95269	TA0297	R20916	R21965	R22854	
A92659	A95270	TA0302	R21435	R22137		
A92902	A95446	TA0303	R22210	R22244	R22678	
A93308	A95665	TA0304	R21450	R22229	R22680	
A93742	A95713	TA0348	R21217	R22135	R08992	
A93743	A95716	TA0351	R21216	R22560	R11551	
A93744	A95722	TA0468	R22249	R22306	R11552	
A93978			R21061	R22347	R14672	
A94167			R21683	R22605	R15329	
A94168	A95916	TA0638	R22034	R22344	R22440	
A94169	A95917	TA0639	R22198	R22396		
A94170	A95958	TA1059	R21921	R22245		
A94803	TA0091	TA1113	R21540	R22711		
	TA0093	TA1037	R22801	R22803		
		TA1046				
		A97073				
		A56805				
		A64709				
		A66005				
		A72766				

Table 3b: Cutblocks and associated roads declared as per FPPR Section 14(4)					
Quesnel (FDU 1)	Williams Lake (FDU 2)				
A57788 Blks 1, 3 R22940	TA1328 (was A95723) - Blks 1, 2, 40, 43				
A60490 Blks 1, 2 R22936	(Associated RP# yet to be assigned)				
A80516 Blks 1 (Associated RP yet to be assigned)	TA1329 (was A95288) – Blks 1, 3, 4, 5				
A51118 Blks 1, 2, 3 (Associated RP yet to be assigned)	(Associated RP# yet to be assigned)				
A60644 Blks 1, 2, 3 (Associated RP yet to be assigned)					
A80557 Blks 1, 2, 3, 4, 5, 6(Associated RP# yet to be assigned)					
A95339 Blks 1, 2, 3 (Associated RP # yet to be assigned)					

# 5.0 Objectives, Results and Strategies

#### 5.1 Soils

**Source of objective:** FPPR 5, 12.1(5), 35 and 36

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

Applicable Area: FDU 1 & 2

#### Result and/or Strategy:

- 1. As required under section *FPPR* 12.1(5), the *TSM* will undertake to notify each holder of a *TSL* or road permit awarded prior to commencing *primary forest activites* that *FPPR* Soil Disturbance Limits (section 35) and Permanent Access Strucuture Limits (section 36) apply to the holder of the *TSL* or Road Permit as those sections were on the date of submission of this *FSP*.
- 2. In relation to the objective for Soils that is set in section 5 of the *FPPR*, and for Cutting Permits, and Road Permits issued by the District Manager, the *FSP holder* adopts as a result or strategy, *FPPR* Section 35, and *FPPR* section 36, as those section were on the date of submission of this *FSP*.

#### 5.2 Timber

#### Source of objective: FPPR 6

The objectives set by government for timber are to

- (a) maintain or enhance an economically valuable supply of commercial timber from British Columbia's forests,
- (b) ensure that delivered wood costs, generally, after taking into account the effect on them of the relevant provisions of this regulation and of the Act, are competitive in relation to equivalent costs in relation to regulated primary forest activities in other jurisdictions, and
- (c) ensure that the provisions of this regulation and of the Act that pertain to primary forest activities do not unduly constrain the ability of a holder of an agreement under the Forest Act to exercise the holder's rights under the agreement.

Applicable Area: Quesnel TSA FDU 1 west of the Nazko River & Williams Lake TSA FDU 2 west of the Fraser River

#### Definitions for the purpose of this result or strategy:

For the purposes of this *results* and strategy:

"Suitable secondary structure" as per FPPR 1 Definitions.

"Targeted pine leading stand" as per FPPR 1 Definitions.

#### Result and/ or Strategy:

- 1. The TSM or FSP Holder will ensure that the secondary stand structure requirements outlined in FPPR 43.1(1) are followed, except when harvesting is being proposed within the Sub Boreal Pine Spruce BEC Zone or those areas west of the Nazko River in the Quesnel TSA and west of the Fraser River in the Williams Lake TSA. In these areas, an assessment of adequate stocking density for suitable secondary stand structure will exclude layer 1, > 12.5cm dbh, lodgepole pine from a survey if:
  - a. the gross *merchantable* coniferous cruise volume contains greater than or equal to 70% lodgepole pine, and
  - b. the gross *merchantable* lodgepole pine volume has greater than or equal to 30% mountain pine beetle attack inclusive of green, red and grey attack.

#### 5.3 Wildlife

#### **5.3.1** Wildlife (General)

Source of Objective: FPPR Sec.7(1) Wildlife, triggered by a notice provided under FPPR 7(2)

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 amount of area, distribution of areas and attributes of those areas, for:

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

Source of Objective: CCLUP 90 Day Report Appendix(s) 3 & 4 pg.153, LAO Objectives 32-34

To manage for grizzly bear, moose, furbearer, species at risk and other sensitive habitats within the areas identified as riparian buffers, recreation areas, mule deer winter range and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.

Applicable Area: FDU 1 & 2

#### Result and/or Strategy:

- 1. The TSM or FSP holder will comply with any Wildlife Notices issued under FPPR 7(2).
- 2. To maintain habitat for the species listed in Table 4 (below) the *TSM* or *FSP holder* will manage habitat across the landscape by only authorizing or performing *primary forest activities* that conform to the *strategies* in the following *FSP* sections:
  - a. 5.3.2 5.3.19 (for various species)
  - b. 5.4 Riparian Areas
  - c. 5.11 Biodiversity
  - d. 5.12 Visual Quality
  - e. 5.13 Recreation
  - f. 5.14 Cultural Heritage
- 3. The *TSM* or *FSP holder* will apply the following general *assessment* and habitat management approach for all species in Table 4, except for mule deer, moose and fisher, prior to declaration of a proposed *cutblock* or *road* as *annual developed volume* (*ADV*) or submission of a cutting permit or road permit:
  - a. Prior to initiating primary field activities, a *GIS* data analysis of the BC Conservation Data Centre (CDC) database and other wildlife data layers in Appendix B and Appendix H maps will be completed for the proposed *cutblocks* and *roads* and the adjacent 1000 metre buffer area. Within *WHA*s, the *GIS* analysis will not include the species for which the *WHA* is designated. A record will be maintained on file with *BCTS* and/or the *FSP* holder of species occurences within the immediate vicinity of the proposed *cutblocks* and *roads*. Immediate vicinity means the area within 200 metres surrounding the proposed *cutblocks* or *roads*, unless otherwise specified for the species elsewhere in this *FSP*.
  - b. During the development stage, areas within the boundaries and the surrounding area within 25 metres of proposed *cutblocks* or *roads*, a field observation form will be used to document species identified in clause a. The field observation form will document the following:
    - i. Observation(s) of wildlife species or species use (eg. Dens, nests etc.), or key

- habitat types for species as described in the *Species of Management Concern for BC Timber Sales Cariboo Business Area* or the *Integrated Wildlife Management Strategy (IWMS)* for that species.
- ii. The completed field form for an observation will be submitted to the CDC as per their current procedures. A record will be documented on file with BCTS and/or the FSP holder.
- c. When an observation of wildlife species or wildlife use, or key habitat needs for species is not seen in the field, it will be recorded that it was not observed. A record will be kept on file with *BCTS* and/or the *FSP holder*.
- d. If a field observation is identified, a *Qualified Resource Professional (QRP)* will complete an *assessment* for the proposed *cutblock* or *road* to mitigate the impacts on the species that is consistent, to the extent practicable, with the following information sources:
  - i. Species of Management Concern for BC Timber Sales Cariboo Business Area office manual (2008),
  - ii. Integrated Wildlife Management Strategy (IWMS) (2004),
  - iii. *FSP* sections 5.3.2 5.3.19,
  - iv. General Wildlife Measures (GWM) for species specific WHAs, and
  - v. any current report or *assessment* completed by a subject expert unique to the species.
- 4. If a wildlife species listed in Table 4 or a *Major wildlife feature* is observed during *harvesting* or *road* construction, a *QRP* will complete an *assessment* in accordance with clause 3 d.
- 5. The *TSM* or *FSP holder* will ensure that the recommendations from the *assessment* are followed to the extent practicable when *primary forest activities* are conducted in relation to the *cutblock* or *road*.

*Note: Table 4 on following page* 

Table 4

Common Name	Species at Risk	Regionally Important	WHA	GAR Ungulate Winter Range	LAO objectives
American Badger	X		X		
American White Pelican	X		X		
Brewer's Sparrow <sup>1</sup>	X				
Bull Trout	X				
Burrowing Owl <sup>1</sup>					
California Bighorn Sheep	X				
Caribou (Northern / Mountain)	X		X	X	
Fisher	X				
Flammulated Owl <sup>1</sup>	X				
Fringed Myotis <sup>1</sup>	X				
Gopher Snake <sup>1</sup>	X				
Great Basin Spadefoot Toad	X				
Great Blue Heron	X		X		
Grizzly Bear	X		X		33
Lewis Woodpecker <sup>1</sup>	X				
Long Billed Curlew <sup>1</sup>	X				
Moose		X			32
Mule Deer		X		X	
Mountain Goat <sup>3</sup>		X			
North American Racer Snake <sup>1</sup>	X				
Prairie Falcon	X				
Sandhill Crane	X				
Sharp Tailed Grouse <sup>1</sup>	X				
Short Eared Owl <sup>1</sup>	X				
Spotted Bat <sup>1</sup>	X				
Western Screech Owl <sup>1</sup>	X				
Wolverine <sup>1</sup>	X				
Yellow Breasted Chat <sup>1</sup>	X				
Red listed species <sup>2</sup>	X				

<sup>&</sup>lt;sup>1</sup> Identified species within the species at risk categories that were established by *GAR* in May 2004 and June 2006, and for which there are no *WHA* established under *GAR*. These species have been grouped together in this *FSP* as "Additional Species at Risk – under *GAR*."

<sup>&</sup>lt;sup>2</sup>Additional Species at Risk not listed by name in table 4 (i.e. Red list species) are address in this FSP as "Additional Species at Risk – not under GAR."

<sup>&</sup>lt;sup>3</sup> Moutain Goat will only be managed for within the Taeseko SRDZ.

#### **5.3.2** Moose

#### Source of Objective: CCLUP 90 Day Report

To manage for grizzly bear, **moose**, furbearer, species at risk and other sensitive habitats within the areas identified as riparian buffers, recreation areas, caribou habitat, and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.

#### Source of Objective: CCLUP 90 Day Report Appendix 4 Pg. 155

The overall objective is to maintain habitat through maintenance of:

- 1) Forested buffers around wetlands and riparian areas,
- 2) Cover and early seral (shrubby) upland winter habitats,
- 3) Other aspects of **moose** habitat needed on a site-specific basis, including calving areas and summer habitat protection,
- 4) Careful access management, including limitations on permanent access, deactivation of temporary roads, and limiting road crossings of wetlands and riparian areas as much as possible.

#### Source of Objective: LAO objective 32

High Value Wetlands for **Moose**: Retain sufficient vegetation to provide security and thermal cover for wintering moose adjacent to high value wetlands defined by the spatial dataset, and adjacent to W1, W3 or W5 wetlands (including shrub-carrs).

*Applicable Area:* FDU 1 & 2 and High Value Wetlands for Moose & W1, W3 or W5 wetlands including shrub-carrs Appendix B: High Value Wetlands for Moose Appendix H: Maps

#### Definitions for the purpose of this result or strategy:

- "Riparian Edge" means the wetland boundary which is determined from on-the-ground surveys by mapping the upslope extent of the following combination of conditions:
  - a. Predominance of plant species that normally grow in water or water-saturated soils or in peat soils (non-forested plant communities that indicate subhydric or hydric ecological moisture regime),
  - b. Non-forest soils that are water-saturated or show evidence of prolonged water saturation (gleying) within 30 cm of the surface or are peat soils, and
  - c. For shrub-carrs, the transition between shrub dominated and tree dominated vegetation associated W1, W3 and W5.

"High Value Moose Wetland Management Zone (HVMWMZ)" is an area surrounding a high value moose wetland with a width of 200m (slope distance) measured from the riparian edge of the wetland.

- "High value moose wetland" is as defined in the LAO spatial data set: Cariboo-Chilcotin High Value Wetlands for Moose displayed in Appendix H.
- "Moose Management Unit (MMU)" means an area surrounding a W1, W3, W5 or a shrub-carr associated with a W1, W3 or W5 wetland not identified as a high value moose wetland. The Moose Management Unit is an area with a width of 100 metres (slope distance) applied to the outside riparian edge of a W1, W3, W5 or shrub-carr.
- "Road density" means the density of road lengths (km/km²) for roads defined by the following spatial data sets: "DIGITAL ROAD ATLAS" (WHSE\_BASEMAPPING.DRA\_DGTL\_ROAD\_ATLAS\_MPAR\_SP) and "ALL FOREST ROAD SECTIONS FTEN"

(WHSE\_FOREST\_TENURE.FTEN\_ROAD\_SECTION\_LINES\_SVW.

- "Security cover" means sufficiently stocked live conifers and deciduous averaging greater than 3 metres in height.
- "Shrub-carr" means a wetland that is shrub dominated and comprised of scrub birch and willows up to 2m tall, developed on mineral soils that are periodically saturated, but rarely inundated.
- "Thermal cover" means sufficiently stocked live conifers greater than or equal to 15 metres tall with

greater than 40% crown closure. For the SBPS, IDF or MS *BEC* zones, if 15 metres tall stands are not available, then greater than or equal to 8 metres tall with greater than 40% crown closure conifer stands will be acceptable as *thermal cover*.

"Visual screen" means vegetation, topography and/or a woody debris pile that obscures 50% of the view from a road surface.

#### Result and/or Strategy:

1. The *TSM* or *FSP holder* will ensure that all *primary forest activities* for a *cutblock* or *road* that overlaps with a

HVMWMZ or MMU, will not cause the area to have:

- a. within the SBPS, IDF or MS BEC zones,
  - i. less than 30% of the area as thermal cover, and
  - ii. less than 60% of the area as security cover.
- b. within the SBS BEC zone,
  - i. less than 33% of the area as thermal cover, and
  - ii. less than 66% of the area as security cover.
- c. within the ICH or ESSF BEC zone,
  - i. less than 60% of the area as thermal cover, and
  - ii. less than 80% of the area as security cover.
- 2. For all thermal and security cover retained above in clause 1, retention patches will:
  - a. be greater than or equal to 100 meters wide, and
  - b. greater than 2 hectares, and
  - c. not greater than 400 meters apart where more than one patch is established.
- 3. If the wetland with a HVMWMZ or MMU is less than 6 hectares, then clause 2 does not apply.
- 4. The *TSM* or *FSP holder* will not construct any *primary roads* within a *HVMWMZ* or *MMU*, unless no practicable alternative exists for the *road* location.
- 5. Where the *TSM* authorizes or *FSP holder* conducts *harvest* of a *cutblock* within 500 metres (slope distance) of *High Value Moose Wetlands*, the *TSM* or *FSP holder* will ensure:
  - a. following *conclusion of harvesting*, a *visual screen* is established and maintained for that portion of the *cutblock* within 500 meters of the *High Value Moose Wetland* until free growing, or
  - b. immediately following *conclusion of harvesting* from the corresponding *cutblock* associated with the *High Value Moose Wetland*, *access control(s)* are established to eliminate vehicular access into the *cutblock*.
- 6. Where the *road density* exceeds 0.6 km/km<sup>2</sup> for the area within a 1000 meters of a *high value moose wetland*, the *TSM* or *FSP holder* will ensure, immediately following delivery of the fibre from the corresponding *cutblock* associated with the *High Value Moose Wetland*, deactivation and/or establishment of *access control(s)* on all new *roads* to eliminate vehicular access within 1000 metres of the *High Value Moose Wetland*.
- 7. For those portions of a *cutblock* where retention is required for *visual screening* within 500 metres of the wetland associated with a *HVMWMZ* or *MMU*, the free growing damage criteria for

even-aged coniferous trees as specified in the FS 660 field card, with regard to dwarf mistletoe, will not apply to retained lodgepole pine and subsequent lodgepole pine regeneration.

#### 5.3.3 Mule Deer

Source of Objective: CCLUP 90 Day Report

To maintain mule deer winter range values through modified harvest regimes...

Applicable Area: FDU 1 - Ungulate Winter Range U-5-001 & FDU 2 - Ungulate Winter Range U-5-002.

#### Result and/or Strategy:

1. The *TSM* or *FSP holder* adopts as a *result* or *strategy*, the general wildlife measures as specified in the *GAR* Orders for Ungulate Winter Ranges: U-5-001 & U-5-002.

#### **5.3.4 Furbearers (General)**

#### Source of Objective: CCLUP 90 Day Report

To manage for grizzly bear, moose, **furbearer**, species at risk and other sensitive habitats within the areas identified as riparian buffers, recreation areas, caribou habitat, mule deer winter range and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.

#### Source of Objective: CCLUP Appendix 4 Pg.(s) 156 & 159

..furbearers such as marten and fisher, waterfowl, and many other species benefit from the application of the guidelines under the FPC and access management.

..the region contains an abundance of wetlands which provide important habitat for many species. They are of particular importance for waterfowl, moose and **furbearers**...

#### Applicable Area: FDU 1 & 2

#### Definitions for the purpose of this result or strategy:

"Wildlife Debris Pile (WDP)" means an accumulation of woody debris  $\geq 3$ m by  $\geq 5$ m in dimension and mechanically piled  $\geq 2$ m high, consisting of the largest pieces available.

#### Result and/or Strategy:

- 1. To maintain *Furbearers* (General) habitat across the landscape, the *TSM* or *FSP holder* will ensure that *primary forest activities* conform to the *strategies* in Wildlife General (*FSP* Section 5.3.1).
- 2. Where *harvesting* removes > 50% of stand basal area in contiguous areas greater than 5 ha, the *TSM* or *FSP holder* will, to the extent practicable, retain a minimum of 1 unburnt *wildlife debris piles* per hectare within those portions of *cutblocks* located within 100m of a riparian area.

#### 5.3.5 American Badger

Source of Objectives: CCLUP 90 Day Report Appendix 3

To manage for grizzly bear, moose, furbearer, **species at risk** and other sensitive habitats within the areas identified as riparian buffers, recreation areas, caribou habitat, mule deer winter range and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.

Applicable Area: FDU 1 & FDU 2 and Conservation Data Centre (CDC) Occurrences

#### Result and/or Strategy:

 To maintain American Badger habitat across the landscape, the TSM or FSP holder will ensure that primary forest activities conform to the strategies in Wildlife General (FSP Section 5.3.1). Immediate vicinity means the area within 200 metres surrounding the proposed cutblocks or roads.

#### 5.3.6 Great Basin Spadefoot Toad

Source of Objective: CCLUP 90 Day Report Appendix 3

To manage for grizzly bear, moose, furbearer, **species at risk** and other sensitive habitats within the areas identified as riparian buffers, recreation areas, caribou habitat, mule deer winter range and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.

Applicable Area: FDU 1 & FDU 2 and Conservation Data Centre (CDC) Occurrences

#### Result and/or Strategy:

1. To maintain Great Basin Spadefoot habitat across the landscape, the *TSM* or *FSP holder* will ensure that *primary forest activities* conform to the *strategies* in Wildlife General (*FSP* Section 5.3.1). Immediate vicinity means the area within 200 metres surrounding the proposed *cutblocks* or *roads*.

#### 5.3.7 American White Pelican

Source of Objective: CCLUP 90 Day Report Appendix(s) 3 & 4

To manage for grizzly bear, moose, furbearer, **species at risk** and other sensitive habitats within the areas identified as riparian buffers, recreation areas, caribou habitat, mule deer winter range and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.

Source of Objective: CCLUP 90 Day Report pg. 162

..limit the disturbance to White Pelicans on feeding lake..

Source of Objective: CCLUP 90 Day Report pg. 156

Consistent with the targets, provide buffers of at least 200 meters and limit human disturbance around important pelican feeding lakes.

*Applicable Area:* FDU 1 & 2 and White Pelican WHA GAR Orders: 5-007, 5-008, 5-011, 5-014, 5-015, 5-017, 5-018, 5-019, 5-020, 5-021, 5-022, 5-023, 5-024, 5-026, 5-027, 5-029, 5-031, 5-034, 5-035 Appendix B: Approved Wildlife Habitat Areas & Conservation Data Centre (CDC) Occurrences Appendix H: Maps

#### Result and/or Strategy:

1. To maintain American White Pelican habitat across the landscape, the *TSM* or *FSP holder* will ensure that *primary forest activities* conform to the *strategies* in Wildlife General (*FSP* Section 5.3.1). Immediate vicinity means the area within 1000 metres surrounding the proposed *cutblocks* or *roads*.

2. The *TSM* or *FSP holder* adopts as a *result* or *strategy*, the *GWM* specified in the White Pelican *WHA GAR Orders:* 5-007, 5-008, 5-011, 5-014, 5-015, 5-017, 5-018, 5-019, 5-020, 5-021, 5-022, 5-023, 5-024, 5-026, 5-027, 5-029, 5-031, 5-034, and 5-035 as that order was on the date the *FSP* was submitted for approval.

#### 5.3.8 Blue Heron

#### Source of Objective: CCLUP 90 Day Report Appendix 3

To manage for grizzly bear, moose, furbearer, **species at risk** and other sensitive habitats within the areas identified as riparian buffers, recreation areas, caribou habitat, mule deer winter range and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.

*Applicable Area:* FDU 1 & 2 and WHA GAR Order(s) x-xxx spatial data set Appendix B: Conservation Data Centre (CDC) Occurrences

#### Result and/or Strategy:

- To maintain Blue Heron habitat across the landscape, the TSM or FSP holder will ensure that primary forest activities conform to the strategies in Wildlife General (FSP Section 5.3.1).
   Immediate vicinity means the area within 1000 metres surrounding the proposed cutblocks or roads.
- 2. The *TSM* or *FSP holder* adopts as a *result* or *strategy*, the *GWM* specified in the *Blue Heron WHA GAR Order(s)*, as that order was on the date the *FSP* was submitted for approval.

#### 5.3.9 Bull Trout

#### Source of Objective: CCLUP 90 Day Report Appendix 3

To manage for grizzly bear, moose, furbearer, **species at risk** and other sensitive habitats within the areas identified as riparian buffers, recreation areas, caribou habitat, mule deer winter range and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.

Source of Objective: CCLUP 90 Day Report pg. 13

Maintain habitat requirements for key regional species, including white pelicans, moose, caribou, mule deer, furbearers and **Dolly Varden** trout.

Source of Objective: CCLUP 90 Day Report pgs. 79 & 87

To manage for **Dolly Varden** habitat by applying modified management regimes over additional riparian buffers (estimated to be about 1% of the forest area) in the Niut and South Chilcotin SRDZ.

Applicable Area: FDU 1 & 2 and Appendix B: Conservation Data Centre (CDC) Occurrences, Cariboo Resource Development Zones (CCLUP) & Bull Trout Appendix H: Maps

#### Definitions for the purpose of the strategy

"Dolly Varden" means Bull Trout.

"Redds" are a hollow in sand or gravel on a river bed, scooped out as a spawning place by salmon, trout, or other fish.

"Spawning habitat" includes gravel and cobble sections in smaller, lower order rivers and streams across the province. Spawning habitat is, but not limited to, low stream gradients (1.0-1.5%) in S1 and S2 streams, low stream gradient (3%) in S3 streams, clean gravel (≤20 mm diameter), water velocities of 0.03-0.80 m/s, and cover in the form of undercut banks, debris jams, pools, and overhanging vegetation.

#### Result and/or Strategy:

- 1. To maintain *Bull Trout* across the landscape during *primary forest activities*, the *TSM* or *FSP holder* will conform to the *strategies* in Wildlife General (*FSP* Section 5.3.1). Immediate vicinity means the area within 500 metres surrounding the proposed *cutblocks* or *roads*. "Habitat" in 5.3.1.3b(i) means *spawning habitat* or *redds* on S1, S2, and S3 streams > 2.5 m wide, having a stream gradient of <3%, that are found within 100m of a proposed *cutblock* or *road*.
- 2. In the Niut and South Chilcotin *SRDZ*, the *TSM* will not authorize *cutblocks* or *roads* or the *FSP holder* will not harvest or construct roads within 20 meters of S4 streams, except where required for any of the purposes described in 5.4.2.1 Riparian.

#### 5.3.10 California Bighorn Sheep

Source of Objective: CCLUP 90 Day Report Appendix 3 pg.(s) 87 & 131

To manage for key **bighorn sheep** and mule deer migration routes.

Source of Objective: CCLUP 90 Day Report Appendix 3 pg. 89

To manage for grizzly bear, mountain goat, **bighorn sheep**, furbearer, species at risk and other sensitive habitats within the areas identified as riparian buffers, recreation areas, and lakeshore management zones and thought throughout the polygon under the biodiversity conservation strategy, including key leading spruce stands.

Source of Objective: CCLUP 90 Day Report pg. 39

"Wildlife migration corridors between the Big Creek/South Chilcotin Protected Area and the Churn Creek Protected area will be maintained...."

Applicable Area: FDU 2 and Appendix B: Conservation Data Centre (CDC) Occurrences & Big Horn sheep Appendix H: Maps

Definitions for the purpose of this result or strategy:

"California Bighorn Sheep Habitat" means, within the South Chilcotin SRDZ and the Gaspard ERDZ, those areas contained in the Bighorn Sheep Migration Corridors Cariboo Region Map data set as displayed on a map in Appendix H of this FSP. This habitat is categorized as: lambing areas; staging areas; summer range; migration corridors; and buffer areas.

#### Result and/or Strategy:

- 1. To maintain Bighorn Sheep across the landscape, the *TSM* or *FSP holder* will ensure that *primary forest activities* conform to the *strategies* in Wildlife General (*FSP* Section 5.3.1). Immediate vicinity means the area within 500 metres surrounding the proposed *cutblocks* or *roads*.
- 2. The TSM or FSP holder will, within California Bighorn Sheep Habitat:
  - a. not construct a new road unless no practicable alternative road location exists,
  - b. within 6 months of delivery of the fibre from the *cutblock*, establish *access control(s)* on new *roads* to eliminate vehicular access. Where the *road access control* is removed on a short-term basis to conduct *primary forest activities*, the *access control* will be restablished with 3 months of the conclusion of those activities, and
  - c. that is also within *UWR* #U-5-002 or #U-5-003, conduct *primary forest activities* consistent with the specified *GWMs* for those ungulate winter ranges, and

d. not use, maintain, or construct *roads*, *harvest*, or authorize *harvest* during the periods specified in Table 5 for each listed *California Bighorn Sheep Habitat* category, without documented prior agreement with Director of Resource Management, FLNRO.

Table 5: California Bighorn Sheep Habitat road use and maintenance restriction dates

California Bighorn Sheep Habitat category	Road use and maintenance restriction periods
migration corridors, buffers, lambing areas, staging areas	May 1- July 1; Sept. 1 – Nov. 15
Red Mountain summer range	May 1 – November 15

#### 5.3.11 Mountain Caribou (Eastern)

#### Source of Objective: CCLUP 90 Day Report Appendix 3

To maintain caribou habitat as per the Quesnel Highlands Caribou strategy.

To manage for grizzly bear, moose, furbearer, **species at risk** and other sensitive habitats within the areas identified as riparian buffers, recreation areas, **caribou habitat** and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.

#### Source of Objective: CCLUP 90 Day Report Appendix 4 pg.(s) 156 & 157

...manage lower elevation habitats including winter ranges and travel corridors as they are identified. Where possible and where compatible with other conservation needs, they may be met through Forest Ecosystem Networks and old growth reserve requirements within each landscape unit.

Applicable Area: FDU 1 & 2 and Mountain Caribou WHA GAR Orders: 5-088 to 5-117 and Appendix B: Conservation Data Centre (CDC) Occurrences & Approved Wildlife Habitat Areas Appendix H: Maps

#### Result and/or Strategy:

- 1. To maintain Mountain Caribou across the landscape, the *TSM* or *FSP holder* will ensure that *primary forest activities* conform to the *strategies* in Wildlife General (*FSP* Section 5.3.1). Immediate vicinity means the area within 1000 metres surrounding the proposed *cutblocks* or *roads*.
- 2. The *TSM* or *FSP holder* will adopt as a *result* or *strategy* the general wildlife measures specified in the applicable *GAR* order for *Wildlife Habitat Areas* 5-088 to 5-117 as shown on Appendix H Maps, as that order was on the date the *FSP* was submitted for approval.

#### **5.3.12** Northern Caribou (Western)

#### Source of Objective CCLUP 90 Day Report Appendix 3

"To maintain caribou habitat as per the Itcha/Ilgachuz Caribou strategy"

"To manage for grizzly bear, moose, furbearer, **species at risk** and other sensitive habitats within the areas identified as riparian buffers, recreation areas, **caribou habitat** and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy."

#### Within the Charlotte Alplands SRDZ:

"To manage for caribou, grizzly bear, moose, furbearer, **species at risk**, and other sensitive habitats within the areas identified as riparian buffers, recreation areas and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy."

Source of Objective CCLUP 90 Day Report Appendix 4 pgs. 157 & 158

Implementation of "modified harvest" areas.

Applicable Area FDU 1 & 2 and Northern Caribou WHA GAR Orders: 5-086, 5-087, 5-118, 5-872, and 5-873. Appendix B: Conservation Data Centre (CDC) Occurrences & Approved Wildlife Habitat Areas Appendix H: Maps

#### Result and/or Strategy:

- 1. To maintain Northern Caribou across the landscape, the *TSM* or *FSP holder* will ensure that *primary forest activities* will conform to the *strategies* in Wildlife General (*FSP* Section 5.3.1). Immediate vicinity means the area within 1000 metres surrounding the proposed *cutblocks* or *roads*.
- 2. The *TSM* or *FSP holder* will adopt as a *result* or *strategy* the general wildlife measures specified in the applicable *GAR* order for *Wildlife Habitat Areas*: 5-086, 5-087, 5-118, 5-872 and 5-873 as shown on Appendix H Maps, as that order was on the date the *FSP* was submitted for approval.

#### 5.3.13 Mountain Goat

#### Source of Objectives: CCLUP 90 Day Report Appendix 3

To manage for grizzly bear, **mountain goat**, bighorn sheep, furbearer, species at risk and other sensitive habitats within the areas identified as riparian buffers, recreation areas and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy, including key leading spruce stands.

Applicable Area: Taseko SRDZ

#### Result and/or Strategy:

1. To maintain Mountain Goat habitat across the landscape, the *TSM* or *FSP holder* will ensure that *primary forest activities* conform to the *strategies* in Wildlife General (*FSP* Section 5.3.1). Immediate vicinity means the area within 200 metres surrounding the proposed *cutblocks* or *roads*.

#### **5.3.14 Grizzly Bear**

#### Source of Objective: CCLUP 90 Day Report Appendix 3

To manage for **grizzly bear**, moose, furbearer, species at risk and other sensitive habitats within the areas identified as riparian buffers, recreation areas, caribou habitat and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.

#### Source of Objective: LAO objective 33

Apart from existing *Wildlife Habitat Areas*, retain security cover adjacent to critical grizzly bear foraging habitats which include salmon and trout spawning reaches or shoals, and herb- dominated avalanche track and run-out zones on southerly and westerly aspects, in very high, high and moderate capability **grizzly bear** units as defined by the spatial dataset, Cariboo-Chilcotin Grizzly Bear Capability.

#### Source of Objective: LAO objective 34

In very high, high and moderate capability **grizzly bear** units as defined by the spatial data set, Cariboo-Chilcotin Grizzly Bear Capability, conduct silvicultural treatments on cutblocks to retain as much existing natural berry production as practicable.

#### Applicable Area: FDU 1 & 2

#### Definitions for the purpose of this result or strategy:

- "Avalanche track" means a large vertical swath of trees missing from a slope or a chute-like clearing below the starting zone and above the avalanche run-out zone. The avalanche track is the path or channel that an avalanche follows as it goes downhill.
- "Avalanche run-out zone" means the part of an avalanche path where deceleration is rapid and where snow and debris come to a stop and is deposited.
- "Critical Fish Habitat" means critical habitat for fish as defined in the CCLUP LAO by the spatial dataset, Cariboo-Chilcotin Critical Habitat for Fish.
- "Pre-harvest" means prior to physical activities occurring on the site related to primary forest activities. i.e. planning related fieldwork activities.
- "Grizzly Bear Capability Areas" means an area defined in the spatial file, for the CCLUP LAO Objective 33 and Map 12, as either "very high", "high" or "moderate" habitat suitability for grizzly bear.
- "Foraging Habitat" means salmon and trout spawning reaches or shoals, herb-dominated avalanche track and avalanche run-out zones on southerly and westerly aspects in very high, high and moderate capability grizzly bear units as defined by the spatial dataset: Cariboo-Chilcotin Grizzly Bear Capability.
- "Security Cover" for grizzly bear consists of dense vegetation next to the grizzly bear *foraging habitats*, which includes: *salmon and trout spawning reaches or shoals*, herb-dominated *avalanche track* and *avalanche run-out zones* on southerly and westerly aspects in very high, high and moderate capability grizzly bear units as defined by the spatial dataset: Cariboo-Chilcotin Grizzly Bear Capability.
- "Salmon and Trout spawning reaches or shoals" means a stream, portions of a S1, S2 and S3 streams or reaches that have the characteristics suitable for salmon or trout spawning.

#### Result and/or Strategy:

1. To maintain Grizzly Bear across the landscape, *primary forest activities* will conform to the *strategies* in Wildlife General (*FSP* Section 5.3.1). *Immediate vicinity* means, in Moderate, High and Very High *Grizzly Bear Capability Area*(*s*), the area within 100m surrounding proposed *cutblocks* or *roads*.

- 2. The *TSM* or *FSP holder* will ensure, during the *pre-harvest* phase of all *cutblocks* and *roads*, that within Moderate, High and Very High *Grizzly Bear Capability Area(s)*, a *QRP* conducts an *assessment* for:
  - a. Grizzly Bear Security Cover adjacent to Grizzly Bear Foraging Habitat:
    - 1. within 100m of a S1, S2 and S3 streams with *salmon and trout spawning* reaches or shoals, and
    - 2. within 100m of a herb dominated *avalanche track* or a *avalanche track run-out zone* on southerly and westerly aspects, and
    - 3. within 80m of Critical Fish Habitat.
- 3. The *QRP assessments* and recommendations in areas of Moderate, High and Very High *Grizzly Bear Capability Areas* will include the following:
  - a. Adjacent to S1, S2 and S3 streams:
    - 1. A field verification of the presence Salmon and Trout spawning reaches or shoals,
    - 2. For *Salmon and Trout spawning reaches or shoals* that are present, a *strategy* to retain Grizzly *security cover* within 100m of the stream, and
    - 3. No upgrading or constructing of *road* crossings over S1, S2 or S3 streams which have *salmon or trout spawning capability* at the crossing unless no other practicable location exists.
  - b. *Adjacent* to herb dominated *avalanche tracks* and *avalanche track run-out zones* on southerly and westerly aspects, maintain a 50 metre management area on each side of the *avalanche track* or *avalanche track run-out zone* which includes:
    - 1. A 25 metre *no harvest* reserve zone on each side of the *avalanche track* or *avalanche track run-out zone*, and
    - 2. A 25 metre management zone *adjacent* to the reserve zone where a minimum of 50% of the basal area is retained,
    - 3. Not upgrading or constructing of either *primary* or *secondary roads* within 100m of an *avalanche track* or *avalanche track run-out zone* unless no practicable alternative exists, and
    - 4. Immediately following *conclusion of harvesting*, all *primary* or *secondary roads* within 100m of an *avalanche track* or *avalanche track* run-out zone will have *access control(s)* established to eliminate vehicular access.
  - c. When adjacent to Critical Fish Habitat, a strategy to retain Grizzly security cover within 80m of Critical Fish Habitat.
  - d. Prior to conducting any vegetation management treatment within a moderate, high or very high *grizzly bear capability area*, the *TSM* or *FSP holder* will ensure a *QRP* conducts a vegetative *assessment* to:
    - 1. Determine the level of existing natural berry production based on the Table 6 *assessment* tool,
    - 2. Based on the *assessment*, develop a *strategy* to delineate and retain as much of existing natural berry production as practicable that includes:
      - a. in moderate and high *grizzly bear capability areas*, where the vegetative *assessment* has determined that existing natural berry

- production is <u>low</u>, the *TSM* or *FSP holder* may carry out a broadcast herbicide or manual application, targeting competing vegetation of an existing conifer crop tree or a plantable spot for the purpose of site preparation, or
- b. in moderate and high *grizzly bear capability areas*, where the vegetative *assessment* has determined that existing natural berry production is **high**, the *TSM* or *FSP holder* will restrict the use of herbicide or manual to a spot application, targeting competing vegetation within 1.0 m radius of an existing conifer crop tree or a plantable spot for the purpose of site preparation, or
- c. in very high *grizzly bear capability areas*, where the vegetative *assessment* has determined that existing natural berry production is **Low**, the *TSM* or *FSP holder* will restrict the use of herbicide or manual to spot application, targeting competing vegetation within 1.5m radius of an existing conifer crop tree or a plantable spot for the purpose of site preparation, or
- d. in very high *grizzly bear capability areas*, where the vegetative *assessment* has determined that existing natural berry production is **high**, the *TSM* or *FSP holder* will restrict brushing to manual cutting only within 1.0m radius of an existing conifer crop tree or a plantable spot for the purpose of site preparation, and
- e. for the purposes of clauses, a to c, where the *cutblock* overlaps two *grizzly bear capability* classes, apply the class with the highest proportion of area.

Table 6: Natural Berry Production Assessment Tool<sup>2</sup>

N	atural Berry Producing Vegetation Cumulative % Cover (all spp.) <sup>1</sup>
	Low < 25%
	High > 25%
<sup>1</sup> Natural Berry	Producing Vegetation (Berry Species of Concern for Grizzly Bears): Blueberry
on Unaldaham	w. Mountain ash and Dad Eldarharmy

sp, Huckleberry, Mountain ash and Red Elderberry.

<sup>2</sup>Minimum stratum size during a vegetation *assessment* is 0.5 ha

4. The *TSM* or *FSP holder* will adopt as a *result* or *strategy* the general wildlife measures specified in the applicable *GAR* order for *Wildlife Habitat Areas*: 5-037 to 5-043 as shown on Appendix H Maps, as that order was on the date the *FSP* was submitted for approval.

#### 5.3.15 Prairie Falcon

#### Source of Objective: CCLUP 90 Day Report Appendix 3

To manage for grizzly bear, moose, furbearer, **species at risk** and other sensitive habitats within the areas identified as riparian buffers, recreation areas, caribou habitat, mule deer winter range and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.

Applicable Area: FDU 1 & 2 and Prairie Falcon WHA GAR Order(s) x-xxx spatial data set Appendix B: Conservation Data Centre (CDC) Occurrences & Approved Wildlife Habitat Areas Appendix H: Maps

#### Result and/or Strategy:

- 1. To maintain Prairie Falcon across the landscape, *primary forest activities* will conform to the *strategies* in Wildlife General (*FSP* Section 5.3.1). Immediate vicinity means the area within 300 metres surrounding the proposed *cutblocks* or *roads*.
- 2. For the purpose of Section 5.3.1.3(b)(i), observation of Praire Falcon occurance will include the confirmed point location of a Praire Falcon sighting in proximity to a cliff area.
- 3. The *TSM* or *FSP holder* adopts as a *result* or *strategy*, the general wildlife measures specified in the Prairie Falcon *WHA GAR* Order(s) x-xxx as that order was on the date the *FSP* was submitted for approval.

#### 5.3.16 Sandhill Crane

#### Source of Objective: CCLUP 90 Day Report Appendix 3

To manage for grizzly bear, moose, furbearer, **species at risk** and other sensitive habitats within the areas identified as riparian buffers, recreation areas, caribou habitat, mule deer winter range and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.

Applicable Area: FDU 1 & 2 and Appendix B: Conservation Data Centre (CDC) Occurrences

#### Result and/or Strategy:

1. To maintain Sandhill Crane across the landscape *primary forest activities* will conform to the *strategies* in Wildlife General (*FSP* Section 5.3.1). Immediate vicinity means the area within 300 metres surrounding the proposed *cutblocks* or *roads*.

#### 5.3.17 Furbearers – Fisher

#### Source of Objective: CCLUP 90 Day Report Appendix 3

To manage for grizzly bear, moose, **furbearer**, **species at risk** and other sensitive habitats within the areas identified as riparian buffers, recreation areas, caribou habitat, mule deer winter range and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.

*Applicable Area:* FDU 1 & 2 and Appendix B: Conservation Data Centre (CDC) Occurrences & BC Fisher Habitat Spatial Data

#### Definitions for the purpose of this result or strategy:

"Debris pile" means an accumulation of woody debris  $\geq 3$ m by  $\geq 5$ m in dimension and mechanically piled  $\geq 2$ m high and consisting of the largest pieces available at the time of construction.

"Fisher life history components" means the key categories of fisher life history activities which are denning, resting, foraging and movement.

"Fisher Habitat Zones" means the large areas of fisher habitat as defined in the Fisher Spatial Data Set, for which guidelines have been developed specific to the zone for managing fisher habitat attributes, based on the ecosystem composition, structural attributes and climate of the zone.

"Fisher Spatial Data Set" means the GIS shapefiles for use in ArcGIS that have been developed to identify fisher habitat conditions and retention targets around proposed *cutblocks* for forestry operations, and which is available at BC Fisher Habitat – British Columbia Fisher Habitat and Forestry Web Module (https://www.bcfisherhabitat.ca/).

"Users guide" means the document "User's Guide – Fisher Habitat Spatial Data," which is available at BC Fisher Habitat British Columbia Fisher Habitat and Forestry Web Module (<a href="https://www.bcfisherhabitat.ca/">https://www.bcfisherhabitat.ca/</a>). "Fisher Landscape Conditions" means the relative availability of fisher habitat for a Fisher life history component in a female fisher home range sized polygon around a proposed cutblock.

"Fisher Stand Condition" means the type of stand being proposed for harvest in terms of fisher life history components:

- 1. "Type 1 stands" are forest habitat types that support at least 75% of fishers' use for a given Fisher life history component.
- 2. "Type 2 stands" are forest habitat types that support up to 25% of fishers' use for a given Fisher life history component.

"Fisher Retention Targets" means the amount of area/structures that should be retained during forest development based on an overlay of a *cutblock* boundary with the *fisher spatial data set*. The *retention targets* for a *cutblock* vary according to the *Habitat Zone*, *Landscape Conditions*, and *Stand Conditions* for the *cutblock*.

"Near Landscape Condition Target" means, based on the results of overlaying a cutblock boundary with the fisher spatial data set, that the density of Type 1 stands for the specified fisher life history component (e.g. denning or resting) within a typical female fisher home range centered on the cutblock, is reduced to near a level that may not be sufficient to support fishers, as outlined in the users guide.

#### Result and/or Strategy:

- 1. To maintain Fisher across the landscape, *primary forest activities* will conform to the *strategies* in Wildlife General (*FSP* Section 5.3.1), where:
  - a. The spatial data analysis will include a GIS overlay of each *cutblock* and associated new *road*, consistent with the approach outlined in the *users guide*, with the *fisher spatial data set* to identify the *fisher landscape condition*, *fisher stand condition*, and *fisher retention targets* for each *fisher life history component* pertaining to the *cutblock*.
  - b. The *QRP assessment* and recommendations will include:
    - i. A field verification of the actual *fisher stand condition* of the *cutblock* and *road*, and whether habitat attributes for denning or resting fisher life history components as identified by the above *GIS* exercise are present in the *cutblock* and access corridor (e.g. large diameter trees with cavities and/or bole decay, coarse woody debris (*CWD*) accumulations, spruce trees with rust brooms), and
    - ii. Demonstrates how the information obtained in the above *GIS* exercise and field work was considered in the final submitted design of *cutblock* boundaries and *road* location, wildlife tree retention (*WTR*), and *CWD* retention for the *cutblock*, to retain fisher habitat in relation to the fisher retention targets pertaining to the *cutblock*.
    - iii. The assessment will ensure, to the extent practicable, that the proposed harvest and road construction will meet the Fisher Retention Targets, and preference is given in WTR selection to Type 1 stands that are below the Near Landscape Condition Target.

#### 5.3.18 Additional Species at Risk under GAR

Source of Objective: CCLUP 90 Day Report Appendix 3

To manage for grizzly bear, moose, furbearer, **species at risk** and other sensitive habitats within the areas identified as riparian buffers, recreation areas, caribou habitat, mule deer winter range and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.

Applicable Area: FDU 1 & 2 and Appendix B: Conservation Data Centre (CDC) occurrences.

#### Result and/or Strategy:

1. To maintain additional species under risk under a *GAR* without an assigned *WHA* (see Table 7) across the landscape, *primary forest activities* will conform to the *strategies* in Wildlife General (*FSP* Section 5.3.1).

#### Table 7: Species at Risk under a GAR without an assigned WHA

- i. North American Racer Snake
- ii. Gopher Snake
- iii. Burrowing Owl
- iv. Western Screech-owl
- v. Short-eared Owl
- vi. Brewer's Sparrow
- vii. Yellow-breasted Chat
- viii.Long-billed Curlew
- ix. Sharp-tailed Grouse
- x. Lewis's Woodpecker
- xi. Fringed Myotis
- xii. Spotted Bat
- xiii.Flammulated Owl
- iv. Wolverine

#### 5.3.19 Additional Species at Risk – not under GAR

#### Source of Objective: CCLUP 90 Day Report Appendix 3

To manage for grizzly bear, moose, furbearer, **species at risk** and other sensitive habitats within the areas identified as riparian buffers, recreation areas, caribou habitat, mule deer winter range and lakeshore management zones and throughout the polygon under the biodiversity conservation strategy.

Applicable Area: FDU 1 & 2 and Appendix B: Conservation Data Centre (CDC) Occurrences

#### Definitions for the purpose of this result or strategy:

"Red Listed" means any species or ecosystem that is at risk of being lost (extirpated, endangered or threatened) as listed on the BC Conservation Data Centre.

#### Result and/or Strategy:

1. To maintain additional *red-listed* species across the landscape, *primary forest activities* will conform to the *strategies* in Wildlife General (*FSP* Section 5.3.1).

## 5.4 Riparian Areas

# 5.4.1 Riparian Water, Fish, Wildlife and Biodiversity within Riparian Areas – FPPR section 8

#### Source of Objective: FPPR 8

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

Applicable Area: FDU 1 & 2

#### Definitions for the purpose of this result or strategy:

**Riparian Edge:** Means for the purposes of establishing reserve or management zones, the edge of streams, wetlands and lakes will be as described in the *Riparian Guidebook* (1995).

# Result and/or Strategy:

- 1. The *TSM* or *FSP holder* will adhere to the *results* or *strategies* presented in Streams, Wetlands and Lake Riparian Areas (*FSP* Section 5.4.2).
- 2. A *QRP* will determine the *riparian edge* in a manner consistent with the *Riparian Guidebook* (1995).

# 5.4.2 Streams, Wetlands and Lake Riparian Areas

# 5.4.2.1 Riparian classification, Riparian Reserve Zone and Riparian Management Area

**Source of Objective:** LAO objective 20(a)

Maintain riparian reserve zones as no harvest areas

Source of Objective: LAO objective 20(b)

Despite objective 20 a) *primary forest activities* may be carried out in riparian reserve zones for the following purposes:

- where harvesting is essential for insect control to curtail severe damage to forest values at the landscape level in a beetle management unit (BMU) classified as suppression for that insect pest,
- ii. felling or modifying a tree that is a safety hazard, if there is no other practicable option for addressing the safety hazard,
- iii. constructing a stream crossing,
- iv. creating a corridor for full suspension yarding,
- v. creating guyline tiebacks,
- vi. felling or modifying a tree under an occupant licence to cut, master licence to cut or free use permit issued in respect of an area that is subject to a licence permit, or other form of tenure issued under the Land Act, Geothermal Resources Act, Mines Act, Mineral Tenure Act, Mining Right of Way Act, Ministry of Lands, Parks and Housing Act or Petroleum and Natural Gas Act, if the felling or modification is for a purpose expressly authorized under that licence, permit or tenure,
- vii. felling or modifying a tree for the purpose of establishing or maintaining an interpretive forest site, recreation site, recreation facility or recreation trail.
- viii. Within primary and interface fuel breaks, in an approved community or regional wildfire plan, where impacts to primary old seral forest characteristics are minimized:
  - (i) reduction of fine surface debris, ladder fuels and small diameter trees in intermediate and overtopped crown classes and,
  - (ii) separation of tree crowns among individual trees or clumps within the dominant and codominant layers sufficient to mitigate the spread of a passive crown fire, to a maximum spacing of 6 metres between crowns.

Source of Objective: LAO objective 23

For L3 lakes and selected L1 lakes... defined by the spatial dataset, Cariboo-Chilcotin L3/L1 Lakes, maintain a 10 meter riparian reserve zone.

# Source of Objective: CCLUP 90 Day Report Appendix 4(D) (see DDM Update#3)

To achieve riparian management area objectives, forest practices within the management zone should:

- 1. Where a riparian management area has both a management zone and a reserve zone:
  - a. reduce the risk of windthrow to the reserve zone, and
  - b. retain important wildlife habitat attributes including wildlife trees, large trees, hiding and resting cover, nesting sites, structural diversity, coarse woody debris, and food sources characteristic of natural riparian ecosystems.
- 2. Where a riparian management area has only a management zone:
  - a. retain sufficient vegetation along streams to provide shade, reduce bank microclimate changes, maintain natural channel and bank stability and, where specified, maintain important attributes for wildlife, and
  - b. adjacent to wetlands and lakes, retain key wildlife habitat attributes characteristic of natural riparian ecosystems.

Applicable Area: FDU 1 & 2 and Appendix B: L3/Select L1 Lakes & Appendix H: Maps

# Definitions for the purpose of this result or strategy:

"Critical riparian attributes" means natural streambank stability and run-off filtration, channel processes, stream shade, large woody debris, and organic input to the stream.

- 1. The *TSM* or *FSP holder* will ensure *primary forest activities* will comply with *FPPR* sections 47, 48, 49, 50, 51, 52(2) and 53 as those sections were on the date of *FSP* submission.
- 2. The *TSM* will notify each holder of a *TSL* or *RP* prior to the commencement of *primary forest* activities that *FPPR* sections 47, 48, 49, 50, 51, 52(2) and 53 apply as they were on the date of *FSP* submission.
- 3. Where a Lakeshore Classification or Lake Management Classification has been established in accordance with FRPA 180(h) or Land Act 93.4, the TSM or FSP holder will follow the results and strategies contained in FSP section 5.4.2.2. The riparian management zone requirements contained in FSP section 5.4.2.2 for the lake will be in addition to the FPPR default requirements.
- 4. For selected L1 and L3 lakes (defined in the Cariboo Chilcotin Land Use Plan Land Act Order spatial data set: Cariboo-Chilcotin L3/L1 Lakes) displayed in Appendix H Maps, the *TSM* or *FSP holder* will maintain a 10-meter riparian reserve zone.
- 5. Despite the *strategies* contained in Section 5.4, the *TSM* or *FSP holder* will comply with *Bull Trout* (*FSP* section 5.3.9) for riparian protection adajacent to *Bull Trout spawning habitat*.
- 6. The TSM or FSP holder will, for those riparian features with a riparian management area, require:
  - a. a QRP to complete a windthrow hazard assessment for the riparian management area,
  - b. if the *windthrow hazard assessment* indicates high or very high risk, a *QRP* to develop recommendations to mitigate the risk consistent with the *Windthrow Handbook for British Columbia Forests* (1994), and
  - c. the recommendations from the *assessment* be followed to the extent practicable.
- 7. The TSM or FSP holder will, for those riparian features requiring a riparian reserve zone (RRZ) greater than 0m as per FPPR 47(4), 48(3) or 49(2), maintain the RRZ as a no-harvest area except

for any of the following circumstances:

- a. *harvesting* is *essential for insect control*, and all identified *infestation sites* on crown provincial forest land (excluding area-based tenures) within 500m of the infested riparian reserve are addressed prior to or in conjunction with *harvest* entries into the riparian reserve zone;
- b. felling or modifying a tree that is a *safety hazard*, if there is no other practicable option for addressing the *safety hazard* and the felled or modified portion of the tree is retained on-site;
- c. constructing a stream crossing;
- d. creating a corridor for full suspension yarding;
- e. creating guyline tiebacks;
- f. felling or modifying a tree under an occupant license to cut, master license to cut or free use permit issued in respect of an area that is subject to a license permit, or other form of tenure issued under the Land Act, Geothermal Resources Act, Mines Act, Mineral Tenure Act, Mining Right of Way Act, Ministry of Lands, Parks and Housing Act or Petroleum and Natural Gas Act, if the felling or modification is for a purpose expressly authorized under that license, permit or tenure;
- g. felling or modifying a tree for the purpose of establishing or maintaining an interpretive forest site, recreation site, recreation facility or recreation trail; or
- h. *harvesting* is required within *primary* and *interface fuel breaks*, in an approved community or regional wildfire plan, where impacts to *primary old seral forest characteristics* and *critical riparian attributes* are minimized:
  - i. reduction of fine surface debris, ladder fuels and small diameter trees in *intermediate* and *overtopped crown classes*.
  - ii. separation of tree crowns among individual trees or clumps within the dominant and co-dominant layers sufficient to mitigate the spread of a passive crown fire, to a maximum spacing of 6 metres between crowns.

# 5.4.2.2 Lakes with Lakeshore Management Zones and Lakes with Lake Management Class

# Source of Objective: LAO objective 16

For the lakeshore management zones.... defined by the spatial dataset, *Cariboo-Chilcotin Lakeshore Classes*, maintain the lakeshore management zones in accordance with schedule 2.

#### Source of Objective: LAO objective 17

For the lakes...defined by the spatial dataset, *Cariboo-Chilcotin Lake Management Classes*, manage the lakes in accordance with schedule 3.

# Source of Objective: LAO objective 18

Despite objectives (LUO) 16 and 17, variance from the *VQO*s and the maximum disturbance limits in schedule 2 and the lake management intent in schedule 3 is permitted in lakeshore management zones for any of the following reasons:

- (a) Where harvesting is essential for insect control to curtail severe damage to forest values at the landscape level in a beetle management unit (BMU) classified as suppression for that insect pest,
- (b) Road and fence construction can occur in Class A lakeshore management classes where there is no other practicable location available,
- (c) Within primary and interface fuel breaks, in an approved community or regional wildfire plan, where impacts to primary old seral forest characteristics are minimized:
  - i. reduction of fine surface debris, ladder fuels and small diameter trees in intermediate and overtopped crown classes and,
  - ii. separation of tree crowns among individual trees or clumps within the dominant and codominant layers sufficient to mitigate the spread of a passive crown fire, to a maximum spacing of 6 metres between crowns.

#### Source of Objective: LAO objective 19

For refugia and wilderness fisheries lakes, locate new roads away from the lakeshore, sufficient to protect the existing character of the lake, unless no other practicable route exists.

Applicable Area: FDU 1 & 2 and Appendix B: Lake Management Classes / Lakeshore Management Zones & Appendix H: Maps

#### Definitions for the purpose of this *result* or strategy:

"Lakeshore Management Zone" means a management zone of a specified width *adjacent* to a classified lake as identified on the FSP Maps in Appendix H and defined in the Cariboo Chilcotin Land Use Plan Land Act Order spatial data set: Cariboo-Chilcotin Lake Management Zones.

- 1. The TSM or FSP holder will ensure primary forest activities within lakeshore management zones are conducted in accordance with Table 9.
- 2. For lakes with an established Lake Management Class (defined in the Cariboo Chilcotin Land Use Plan *Land Act Order* spatial data set: Cariboo-Chilcotin Lake Management Classes) displayed in Appendix H Maps, the *TSM* or *FSP holder* will ensure *primary forest activities* are conducted in accordance with the following provisions to achieve the objectives stated in Table 8:
  - a. specific to General Lakes;
    - i. with an established *lakeshore management zone*, achieve the *VQO* by lakeshore management class listed in Table 9 within the *lakeshore management zone*; or
    - ii. without an established *lakeshore management zone*, achieve a *VQO* of partial retention within 200m of the lake;

- b. specific to Quality Lakes;
  - i. where practicable, locate new *roads* outside of the *lakeshore management zone* and achieve the *VQO* by lakeshore management class listed in Table 9 within the *lakeshore management zone*;
- c. specific to Refugium Lakes;
  - i. the *lakeshore management zone* will be a no-harvest area; or
  - ii. for refugium lakes without a *lakeshore management zone*; the area within 200m of the lake will be a no-harvest area;
- d. specific to Wilderness Fisheries Lakes;
  - i. achieve a VOO of preservation within the lakeshore management zone; and
  - ii. where practicable, not construct or upgrade roads within 2km of the lakeshore; or
  - iii. where new *roads* are constructed within 2km of the lakeshore, an *access control* will be established at the beginning of the *road* or at a minimum distance of 2km from the lakeshore immediately following the *conclusion of harvesting*.
- 3. Despite sections 1 and 2, variance from the maximum disturbance limits and *VQO*s in Table 9 is permitted in *lakeshore management zones* for any of the following reasons:
  - a. harvesting is essential for insect control, and all identified infestation sites on crown provincial forest land (excluding area-based tenures) within 500m of the infested lakeshore management zones are addressed prior to or in conjunction with harvest entries into the lakeshore management zones;
  - b. *road* and fence construction in Class A lakeshore management classes where there is no other practicable location available; and
  - c. *harvesting* is required within *primary* and *interface fuel breaks*, in an approved community or regional wildfire plan, where impacts to *primary old seral forest characteristics* are minimized:
    - i. reduction of fine surface debris, ladder fuels and small diameter trees in *intermediate* and *overtopped crown classes*,
    - ii. separation of tree crowns among individual trees or clumps within the dominant and co-dominant layers sufficient to mitigate the spread of a passive crown fire, to a maximum spacing of 6 metres between crowns.

**Table 8: Lake Management Classes** 

General Lake	Manage the area around the lake to maintain a predominantly rural or natural setting. Road access includes 2-wheel drive roads.
Quality Lake	Manage the area around the lake to provide quality natural features with pristine surroundings and a natural appearing environment. Minimize road access and land development.
Refugium Lake  Manage the area around the lake to conserve the special ecological or physiographic features or habitats.	
Wilderness Fisheries Lake	Manage the area surrounding the lake to maintain natural features in an undisturbed, wilderness setting.

Table 9: Lakeshore Management Zone Objectives by Visual Quality Objective in the Lakeshore Management Zone

Lakeshore Management	VQO in the LMZ	Forest Disturbance and Retention in the <i>LMZ</i>
Classes		

All *lakeshore management zones* have a width as defined by the Cariboo Chilcotin Land Act Order spatial dataset, Cariboo-Chilcotin Lakeshore Classes and are measured from the 10m *RRZ*.

**Forest disturbed area** is defined as a previously forested area that has been *harvested*, as either a clearcut or a partial cut within the last 20 years.

**Deciduous patches** are areas >0.25 ha that are >80% deciduous species composition by basal area.

**Moist Understory Habitat** means: areas >0.25 ha with hygric or wetter soils.

All		-	significant wildlife trees, major noist under-story habitats.
		Partial Cutting	Clearcutting
A	Preservation	No i	harvest
В	Retention	Maximum forest disturbed area is 20% of the <i>lakeshore</i> management zone every 20 years with minimum basal area retention of 50%.	Maximum forest disturbed area is 10% of the <i>lakeshore</i> management zone every 20 years with openings smaller than 5 ha.
С	Partial Retention	Maximum forest disturbed area is 40% of the <i>lakeshore</i> management zone every 20 years with minimum basal area retention of 50%.	Maximum forest disturbed area is 20% of the <i>lakeshore</i> management zone every 20 years with openings smaller than 10 ha.
D	Modification	Maximum forest disturbed area is 60% of the <i>lakeshore</i> management zone every 20 years with minimum basal area retention of 50%.	Maximum forest disturbed area is 30% of the <i>lakeshore</i> management zone every 20 years.
E	Modification	Maximum forest disturbed area is 100% of the <i>lakeshore</i> management zone every 20 years with minimum basal area retention in the <i>lakeshore</i> management zone of 50%.	Maximum forest disturbed area is 50% of the <i>lakeshore</i> management zone every 20 years.

# 5.4.2.3 Retention of Trees in a Riparian Management Zone

Source of Objective: LAO objective 21

Except at road crossings, retain wind firm trees and other vegetation in riparian management zones on all S4 streams, sufficient to:

(a) maintain streambank stability and channel processes, and

(b) minimize adverse changes to stream shade and organic input to the stream.

#### Source of Objective: LAO objective 22

In riparian management zones on W3 and W4 wetlands and L3 and L4 lakes retain deciduous patches, significant wildlife trees and major wildlife features.

# Source of Objective: CCLUP 90 Day Report Appendix 4(D) (see DDM Update#3)

To achieve riparian management area objectives, forest practices within the management zone should:

- 1. Where a riparian management area has both a management zone and a reserve zone:
  - a. reduce the risk of windthrow to the reserve zone, and
  - b. retain important wildlife habitat attributes including wildlife trees, large trees, hiding and resting cover, nesting sites, structural diversity, coarse woody debris, and food sources characteristic of natural riparian ecosystems.
- 2. Where a riparian management area has only a management zone:
  - retain sufficient vegetation along streams to provide shade, reduce bank microclimate changes, maintain natural channel and bank stability and, where specified, maintain important attributes for wildlife, and
  - d. adjacent to wetlands and lakes, retain key wildlife habitat attributes characteristic of natural riparian ecosystems.

# **Applicable Area:** FDU 1 & 2

#### Definitions for the purpose of this *result* or *strategy*:

**S6** *T* means a non-fishbearing stream reach that is less than or equal to 400 meters in channel length, that is connected to fish habitat (S1, S2, S3, S4 streams, or lakes, or wetlands containing fish populations).

"Machine free zone" means a 5 metre area on both sides of a riparian feature where ground equipment is not permitted to enter.

- 1. For the retention of trees in a riparian management zone, *primary forest activities* conducted or authorized by the *TSM* or *FSP holder* will follow *FSP* section 5.4.2.1 Riparian classification, Riparian Reserve Zone and Riparian Management Area and at the *conclusion of harvesting* not cause the *RMZ* retention to be less that those specified in Table 10 Stream Classes, Table 11 Wetland Classes and Table 12 Lake Classes, unless,
  - a. the *harvesting* is conducted for any of the following:
    - i. for the purpose of maintaining a road;
    - ii. establishing a riparian crossing;
    - iii. to alleviate a *safety hazard* and there is no other practicable option for alleviating the *safety hazard*; or
  - b. the *harvest* system precludes the achievement of the *RMZ* basal area retention specified in Table(s) 9, 10 and 11 and there is no practicable *harvest* system alternative to *harvest* the *cutblock*; or
  - c. the activity is carrying out management treatments to meet free growing requirements.
- 2. In addition to clause 1, the *TSM* or *FSP holder* will ensure, where there is an established *RMZ* as defined in *FSP* section 5.4.2.2 Riparian classification, Riparian Reserve Zone and Riparian Management Area on all S4 and S6 streams, upon the *conclusion of harvesting* within the *RMZ*:
  - a. brush species, advanced regeneration, non-merchantable conifers and non-commercial

stems are retained to the extent practicable; and

- b. a machine free zone adjacent to streams is maintained except when:
  - i. establishing a stream crossing; or
  - ii. alleviating a *safety hazard* and there is no other practicable option for alleviating the *safety hazard*.
- 3. In addition to clause 1 of this *strategy*, the *TSM* or *FSP holder* will ensure, where there is an established *RMZ* as defined in *FSP* section 5.4.2.2 Riparian classification, Riparian Reserve Zone and Riparian Management Area on W1,W3,W4,W5, L3,and L4, upon the *conclusion of harvesting*, that the following is retained to the extent practicable within the *RMZ*:
  - a. deciduous patches, defined as >0.25 ha containing >80% deciduous species; and
  - b. *significant wildlife trees* or a minimum of five *high value wildlife trees* per hectare; and
  - c. major wildlife features.
- 4. Significant wildlife trees, high value wildlife trees or deciduous trees retained as a part of this result or strategy that are stubbed for the reasons below, when the TSM or FSP holder is conducting or authorizing primary forest activities, will still contribute to meeting the applicable objective when:
  - a. done as part of a windthrow hazard treatment required under section 5.4.2.1(6) of this FSP, or
  - b. done to address a *safety hazard*, and there is no other practicable option for addressing the *safety hazard*, and
  - c. the cut portion of the tree identified in a and b is retained on-site.

**Table 10: Stream Classes** 

Riparian Class	Width (m)	RRZ (m)	RMZ (m)	RMA (m)	RMZ Basal Area Retention (Minimum) (%) <sup>1</sup>
S1A	≥ 100m	0	100	100	50
S1B	20 – 100	50	20	70	50
S2	5 - 20	30	20	50	20
S3	1.5 - 5	20	20	40	20
S4 <sup>4</sup>	0.5 - 1.5	0	30	30	30
S4A <sup>4</sup>	< 0.5	0	10	10	30
S5	10 - 20	0	30	30	30
S5A	3 – 10	0	30	30	30
S6T A <sup>2,4</sup>	0.5  to < 3.0	0	20	20	25
S6T B <sup>2,4</sup>	< 0.5	0	20	20	25
S6C <sup>3,4</sup>	0.5  to < 3.0	0	20	20	20
S6D <sup>3,4</sup>	< 0.5	0	20	20	20

 $<sup>^{1}</sup>$  Basal area retention % is measured as % Basal Area including all stems (live or dead) >2.5m in height or % of the area of the *RMZ*.

<sup>&</sup>lt;sup>2</sup> Tributary to fish stream

<sup>&</sup>lt;sup>3</sup> Non-Tributary to a fish Stream

<sup>&</sup>lt;sup>4</sup> See clause 2 of 5.4.2.3 Retention of Trees in a Riparian Management Zone and clause 6 of 5.4.2.1 Riparian classification, Riparian reserve zone and Riparian management area.

**Table 11: Wetland Classes** 

Riparian	Area (ha)	RRZ (m)	RMZ (m)	RMZ (m)	RMZ Basal Area Retention
Class					(Minimum) $(\%)^1$
W1	> 5	10	40	50	20
$W2^2$	1 - 5	10	20	30	20
$W3^4$	$1 - 5^4$	0	30	30	20
W4 <sup>2.4</sup>	0.25 - 1	0	30	30	20
$W5^3$	> 5 <sup>3</sup>	10	40	50	20

<sup>&</sup>lt;sup>1</sup> Basal area retention % is measured as % Basal Area including all stems (live or dead) >2.5m in height or % of the area of the *RMZ*.

**Table 12: Lake Classes** 

Riparian Class	Area (ha)	RRZ (m)	RMZ (m)	RMA (m)	RMZ Basal Area Retention (Minimum) (%) <sup>1</sup>
L1A	1000	0	0	0	N/A
L1B	5 - 1000	0	10	10	25
L1 <i>LAO</i> 23	> 5	10	0	10	100
$L2^2$	1 - 5	10	20	30	25
L3 <sup>3</sup>	1 - 5	0	30	30	25
L3 <i>LAO</i> 23	1 - 5	10	20	30	25
L4 <sup>3</sup>	0.5 - 1	0	30	30	25

<sup>&</sup>lt;sup>1</sup> Basal area retention % is measured as % Basal Area including all stems (live or dead) >2.5m in height or % of the area of the *RMZ*.

# 5.5 Watershed Hydrology

Source of Objective: CCLUP 90 Day Report pg.160

As required under the FPC when disturbance levels exceed 25% and in key watersheds, a watershed assessment should be undertaken to ensure the maintenance of critical fish and wildlife habitats and hydrological stability.

Source of Objective: CCLUP 90 Day Report pgs. 61, 83 and 113

Boss/Deception SRDZ - To manage the Horsefly River watershed for hydrologic stability through watershed assessment, restoration work and monitoring programs.

Cottonwood ERDZ - To manage the Cariboo and Cottonwood River watersheds for hydrologic stability through watershed assessment, restoration work and monitoring programs.

Quesnel Highlands SRDZ - To manage the Cariboo River watershed for hydrologic stability through watershed assessment, restoration work and monitoring programs.

Applicable Area: FDU 1 & 2 and Appendix B: Watershed Hydrology & Appendix H: Maps

<sup>&</sup>lt;sup>2</sup> IDFxm only

<sup>&</sup>lt;sup>3</sup> Wetland complexes

<sup>&</sup>lt;sup>4</sup> See clause 3 of 5.4.2.3 Retention of Trees in a Riparian Management Zone and clause 6 of 5.4.2.1 Riparian classification, Riparian reserve zone and Riparian management area.

<sup>&</sup>lt;sup>2</sup> IDFxm only

<sup>&</sup>lt;sup>3</sup> See clause 3 of 5.4.2.3 Retention of Trees in a Riparian Management Zone. See clause 2 of 5.4.2.3 Retention of Trees in a Riparian Management Zone and clause 6 of 5.4.2.1 Riparian classification, Riparian reserve zone and Riparian management area.

#### Definitions for the purpose of this result or strategy:

"Hydrological assessment" means an assessment that addresses and provides recommendations on:

- 1. the prevention of mass wasting and sediment delivery;
- 2. maintaining natural fish passage and fish habitat;
- 3. maintaining natural channel equilibrium and riparian function;
- 4. maintaining natural quality, quantity and timing of water flows.

"Key Watersheds" means the Cariboo River, Horsefly River and Cottonwood River as identified in the Appendix H Maps that are outside of the Fisheries Sensitive Watershed *GAR* F-5-001.

"Key Watershed Reporting Units" means basins, sub-basins and residual areas within the Key Watersheds as identified in Appendix H Maps.

# Result and/or Strategy:

- 1. Prior to carrying out or authorizing *primary forest activities* within *key watersheds*, the *TSM* or *FSP holder* will:
  - a. have a *QRP* conduct a *hydrological assessment* when the *ECA* is greater than or equal to 25% for the *key watershed reporting unit* where the *cutblock* or *road* is located. The *assessment* will meet or exceed the standards and methodology used in the Interior Watershed Assessment Procedure Guidebook (IWAP) 2<sup>nd</sup> Edition Ver. 2.1(1999); and
  - b. ensure the *cutblock* or *road* site plan is consistent with the recommendations within the hydrological *assessment* in clause 1a.
- 2. The *TSM* or *FSP holder* will ensure all newly constructed *roads* (<1 year old), or fish stream crossings, or *roads* under the responsibility of the *TSM* or *FSP holder* exhibiting signs of terrain instability within key watersheds are:
  - a. inspected post freshet for erosion, slope failures, stream crossings and any signs of instability, and
  - b. for *permanent roads*, assigned an inspection frequency based on risk.
- 3. Prior to the commencement of *primary forest activities*, the *TSM* will notify each holder of a *TSL*, or a *RP*, that clause 2 applies.
- 4. The *TSM*, *FSP holder*, or the holder of an active *TSL* or *RP* will ensure any concerns or issues identified in clause 2 will be inspected by a *QRP* and a remediation plan will be created and implemented as per the *QRP* 's recommendations.

#### 5.6 Critical Fish Habitat

Source of Objective: LAO objective 12

Maintain critical habitat for fish as defined by the spatial dataset, Cariboo-Chilcotin Critical Habitat for Fish as no-harvest areas.

Source of Objective: LAO objective 13

Despite objective 12, primary forest activities are permitted in areas classified as critical habitat for fish for the following reasons:

- (a) Where harvesting is essential for insect control to curtail severe damage to forest values at the landscape level in a beetle management unit (BMU) classified as suppression for that insect pest,
- (b) Road and fence construction where there is no other practicable location available.

Applicable Area – FDU 1 & 2 and Appendix B: Critical Fish Habitat & Appendix H: Maps

Definitions for the purpose of this result or strategy:

"Critical fish attributes" means natural streambank stability and run-off filtration, channel processes, stream shade, large woody debris, and organic input to the stream.

#### Result and/or Strategy:

- 1. The *TSM* or *FSP holder* will maintain critical habitat for fish, as defined in the Cariboo Chilcotin Land Use Plan Land Act Order by the spatial dataset <u>Cariboo-Chilcotin Critical Habitat for Fish</u> as displayed in the Appendix H maps, as no-*harvest* areas except in the following situations where *primary forest activities* are permitted:
  - a. *harvesting is essential for insect control* and all identified *infestation sites* on crown provincial forest land (excluding area-based tenures) within 500m of the infested critical habitat for fish area are addressed prior to or in conjunction with *harvest* entries into the critical habitat for fish:
  - b. for *road* and fence construction where there is no other practicable location;
  - c. *harvesting* is required within *primary* and *interface fuel breaks*, in an approved community or regional wildfire plan, where impacts to *primary old seral forest characteristics* and *critical fish attributes* are minimized:
    - i. reduction of fine surface debris, ladder fuels and small diameter trees in *intermediate* and *overtopped crown classes*.

# 5.7 Blackwater Quality Fisheries Resource

Source of Objective: CCLUP 90 Day Report pgs. 71 & 91

Lower Blackwater SRDZ - To manage the Blackwater River as a quality fisheries resource through riparian buffers and modified management over 12% of the forest area.

Upper Blackwater SRDZ – To manage the Blackwater River as a quality wilderness stream fishery.

Applicable Area: FDU 1 Lower Blackwater SRDZ and Upper Blackwater SRDZ Appendix B: Cariboo Resource Development Zones (CCLUP) & Appendix H: Maps

#### Result and/or Strategy:

1. The *TSM* or *FSP holder* will conform to the *strategies* in *FSP* section(s): 5.4 Riparian, 5.12 Visual Quality, 5.13.2 Recreation Sites and Trails, 5.13.3 Backcountry, and 5.13.5 Alexander MacKenzie Heritage Trail / Nuxalk-Carrier Grease Trail.

#### 5.8 Salmon Watersheds

#### Source of Objective: CCLUP 90 Day Report

Anahim Lake IRDZ – To manage the Atnarko River watersheds for salmon stocks (approximately 30% of the polygon), through riparian area protection and controls on the rate of harvest. (pg. 95)

Baezaeko ERDZ - To manage the Baezaeko River watershed for salmon stocks through application of the Forest Practices Code. (pg. 107)

Beaver Valley ERDZ - To manage the Horsefly, Beaver, Hazeltine and Edney River watersheds for salmon stocks, through riparian area protection and controls on the rate of harvest. (pg. 115)

Boss/Deception SRDZ - To manage the Horsefly River watershed for salmon stocks, through riparian area protection and controls on the rate of harvest. (pg. 61)

Brittany Triangle SRDZ - To manage the Chilko and Taseko River watersheds for salmon stocks, through riparian area protection and controls on rate of harvest. (pg. 63)

Charlotte Alplands SRDZ – To manage the Atnarko River watersheds for salmon stocks (approximately

60% of the polygon), through riparian area protection and controls on the rate of harvest. (pg. 65)

Chezacut IRMZ - To manage the Chilcotin and Nazko River watersheds for salmon stocks, through riparian area protection and controls on the rate of harvest. (pg. 97)

Cottonwood ERDZ - To manage the Cottonwood River watershed for salmon stocks, through riparian area protection and controls on the rate of harvest. (pg. 113)

Eagle IRMZ - To manage the Chilko River watershed for salmon stocks by applying the Forest Practices Code. (pg. 100)

Grasslands IRMZ - To manage the Fraser River mainstem and banks for salmon habitat, through application of the Forest Practices Code. (pg. 103)

Itcha-Ilgachuz SRDZ - To manage the Dean and Baezaeko River watersheds for salmon stocks through riparian area protection and controls on the rate of harvest. (pg. 71)

Nazko ERDZ – To manage the Nazko River watershed for salmon stocks through application of the Forest Practices Code. (pg. 109)

Quesnel ERDZ - To manage the Quesnel River watershed for salmon stocks through riparian area protection and controls on rate of harvest. (pg. 111)

Quesnel Highlands SRDZ - To manage the Cariboo, Bowron and Cottonwood River watershed for salmon stocks, through riparian area protection and controls on the rate of harvest. (pg. 83)

Quesnel Lakes SRDZ - To manage the Quesnel, Bowron and Horsefly River watersheds for salmon stocks, through riparian area protection and controls on the rate of harvest. (pg. 85)

Williams Lake ERDZ - To manage the habitats along the Fraser River mainstem and banks for salmon stocks. (pg.117)

Applicable Area: FDU 1 & 2

- The TSM or FSP holder will conform to the strategies in FSP Sections: 5.4 Riparian, 5.5
  Watershed Hydrology, 5.6 Critical Fish Habitat, 5.9 Fisheries Sensitive Watersheds, 5.10
  Community Watersheds & Licensed Waterworks, 5.11 Biodiversity, 5.12 Visual Quality, 5.13.6
  Wildcraft and 5.14.2 Community Areas of Special Concern, to manage for rate of harvest and riparian area protection in the rivers and watersheds of the: Horsefly, Chilcotin, Chilko, Taseko, Atnarko, Baker, Bowron, Cariboo, Cottonwood, Quesnel, Nazko, Beaver, Hazeltine, Edney, Baezaeko and Dean Rivers.
- 2. Within 500 metres (slope distance) of the main stem of the Fraser River and Chilcotin River below Hanceville, the *TSM* or *FSP holder* will not construct new *primary/secondary roads* or upgrade existing *roads* to *primary* or *secondary road* status on areas defined as Terrain Class III, IV, or V as per *Mapping and Assessing Terrain Stability Guidebook* 2<sup>nd</sup> *Edition (August 1999)* unless:
  - a. A *QRP* completes a Terrain Stability *Assessment*, and
  - b. The *TSM* or *FSP holder* will ensure that all *primary forest activities* are consistent with the *assessment*.

# **5.9 Fisheries Sensitive Watersheds**

Source of Objective: GAR F-5-001 pursuant to GAR 14

Objectives contained in Order – Fisheries Sensitive Watershed Cariboo-Chilcotin Forest District.

*Applicable Area:* FDU 2 Horsefly Watershed boundaries as per GAR F-5-001 Appendix B: Fisheries Sensitive Watersheds & Unstable Terrain Appendix H: Maps

#### Definitions for the purpose of this result or strategy:

"Active Fluvial Unit (AFU)" that portion of a floodplain over which water can be expected to flow during a runoff event of magnitude 1 in 100 years and that portion of an alluvial fan on which there is evidence of hydrogeomorphic processes such as naturally occurring fluvial erosion or evidence of mass wasting. AFU's should be expected to occur on portions of all streams >1.0 m stream channel width.

"Basin, and Sub-basin" see "watershed" below.

"Channel Equilibrium" the natural processes of bank erosion and sediment transport occurring within a stream, while average channel width, depth, slope and sinusity are maintained over time.

"Debris" wood and other organic materials typically mixed with mineral soils resulting from mass-wasting events which can be delivered to stream channels and the aquatic environment.

"Equivalent Clearcut Area (ECA)" the proportion of the overall forest land-base area within a watershed, or specified sub-units of a larger watershed, that has been disturbed (e.g. harvested, cleared, affected by forest pathogens or insects, or burned, etc.), with consideration given to the state of hydrologic recovery within the area disturbed. Hydrologic recovery, and the magnitude of the ECA impact, is influenced by numerous factors including silvicultural system used, level of forest stand regeneration, and the location and distribution of disturbance within the watershed. The method to be used to determine ECA is described in Appendix 2 of the Coastal Watershed Assessment Procedure Guidebook (CWAP) Interior Watershed Assessment Procedure Guidebook (IWAP) Second Edition Version 2.1 April 1999 or another methodology prepared by a QRP, endorsed by FLNRORD and adopted by all FSP Holders and TSMs operating in the Fisheries Sensitive Watershed (FSW).

"Hydrologic Recovery" is the state at which regeneration restores the processes of interception, evapotranspiration, and natural snow accumulation and snow melt patterns compared to pre-disturbance conditions.

"Mass wasting" also known as slope movement, mass movement or landslide, is the geomorphic process by which soil, sand, regolith, and rock move downslope typically as a mass, largely under the force of gravity, but frequently affected by water and water content.

"Natural range barrier" a river, rock face, dense timber or any other naturally occurring feature that stops or significantly impedes livestock movement to and from an *adjacent* area.

"Peak flow" is the maximum flow rate that occurs within a specified period of time, on an annual or event basis.

"Riparian Function" in the context of watershed management, riparian function is defined as: 1) the ability for riparian vegetation to increase stream bank stability during peak flood events, particularly where alluvial materials are involved, 2) the ability to filter runoff, 3) the ability to store and safely release water, 4) the recruitment of large woody debris (and small and organic material) to the stream, and 5) the provision of shade to aquatic systems.

"Sediment Delivery" refers to the transport and deposition of sediment and debris from a sediment source into a fish stream or tributary to a fish stream.

"Sediment Generation" a source of fine sediment that is generated by: unstable terrain, a road right-ofway, a road, roadway stream crossing, and other associated features that have the potential to generate sediment that can be delivered to a stream. "Snow Sensitive zone" is the portion of the watershed that contributes snowmelt to generate peak flows. "Topographic exposure" is characterized by slope gradient and slope aspect and is one of the most

important factors that determine snowmelt rate and flood generation potential.

"Unstable Terrain" Unstable terrain is defined as the following areas:

- a. Polygons identified with a Slope Stability Class with Roads of potentially unstable and unstable in the spatial dataset WHSE TERRESTRIAL ECOLOGY.STE TER STABILITY POLYS SVW, or
- b. Polygons identified with a Slope Stability Class with Roads of Class 4R, Class 4, Class 5, Class IVR, Class IV, and Class V in the spatial dataset:
  - WHSE TERRESTRIAL ECOLOGY.STE TER STABILITY POLYS SVW, or
- c. Indicators of unstable terrain identified in the field as detailed in the Mapping and Assessing Terrain Stability Guidebook, August 1999, or
- d. Gentle-over-steep type of terrain feature comprising of both (1) steep and potentially unstable slopes that are (2) located immediately down-slope of gentle terrain where forest development can potentially occur.

"Watershed, Basin, and Sub-basin" A watershed is referred to as a drainage basin, or catchment area, where natural landscape units from which hierarchical drainage networks (sub-basins) are formed. A watershed is geographically defined by its boundary; that is the height of land dividing two areas that are drained by different river systems or stream networks. For most uses of this term, understanding the definition's purpose and scale of application (e.g. basin vs. sub-basin) are important when defining a watershed's spatial extent and management practices within a basin or sub-basin.

"Watershed routing efficiency" the efficiency by which surface runoff and shallow groundwater flows are routed to the stream channel network. The rate at which a stream responds to snowmelt or storm events is relatively lower in watersheds with natural storage (i.e. lakes and wetlands). Watershed routing efficiency is relatively higher in watersheds with relatively high stream densities, high slope gradients, and high road densities. Groundwater flow rate is affected principally by sub-surface characteristics (soils, surficial materials, and bedrock geology and structure) and the water table elevation differences. Road construction and deactivation can affect watershed routing efficiency by either increasing or decreasing the efficiency at which water drains across the land surface.

"Windfirm" a single or stand of trees that retains the ability to withstand strong winds and thus resist overturning (i.e. to resist windthrow, windrocking, and major breakage).

#### Source of Objective #1: Terrain Stability/Mass Wasting GAR F-5-001 pursuant to GAR section 14

1) Ensure that Primary Forest Activities in the FSW do not result in mass wasting or sediment delivery in quantities that adversely affect fish habitat or fish during any life stage.

#### Result and/or Strategy:

1. For the Horsefly River Fisheries Sensitive Watershed (F-5-001) as identified by *GAR* order F-5-001, the *TSM* or *FSP holder* will not authorize or conduct *primary forest activities* in areas of *unstable terrain* unless an *assessment* is completed by a *QRP* that concludes the *primary forest activities* will not result in *mass wasting* or *sediment delivery* that causes adverse impacts to fish habitat or fish during any life stage.

# Source of Objectives #2 & #3: Road Crossings FSW GAR F-5-001

2) a) Plan, construct, maintain and deactivate road crossings over fish-bearing streams and direct tributaries to fish-bearing streams such that total fine sediment generation does not exceed the low rating criteria. b) In basins and sub-basins with a moderate or high road stability hazard ensure hydrologic impacts from new

forestry roads are minimized.

3) Maintain fish passage at road crossings on fish-bearing streams by ensuring that natural (predevelopment) site-level stream channel characteristics, including width, depth, slope and bed texture, are preserved.

#### Result and/or Strategy:

- 1. The *TSM* or *FSP holder* will ensure the planning, construction, maintenance, and deactivation of road crossings over fish-bearing streams and direct tributaries to fish-bearing streams such that total fine *sediment generation* does not exceed the *WQEE* low rating criteria, as per the Forest and Range Evaluation Program Water Quality Effectiveness Evaluation (*WQEE*) Protocol (Table11).
- 2. The TSM or FSP holder will ensure prior to authorizing or conducting new road construction:
  - a. a *QRP* completes a road stability hazard *assessment* to identify moderate and high road stability hazard *basins and sub-basins*; and
    - i. the *QRP* will make recommendations for moderate or high road stability hazard basins that will minimize hydrologic impacts from new *roads*.
  - b. the construction of new *roads* in the moderate or high *road* stability hazard basins and sub-basins follow the *QRP*s recommendations.
- 3. The *TSM* or *FSP holder* will maintain fish passage at *road* crossings on fish-bearing streams by ensuring that natural (pre-development) site-level stream channel characteristics, including width, depth, slope, and bed texture are preserved.

# Source of Objective #4, #5 and #6: Riparian FSW GAR F-5-001

- 4) Maintain channel equilibrium and riparian function by retaining all mature windfirm forest and other natural vegetation on *active fluvial units* (*AFU*) along fish-bearing streams and direct tributaries to fish-bearing streams.
- 5) Ensure primary forest management practices and activities on or above an *AFU* in the FSW do not destabilize the *AFU*.
- 6) Where a natural range barrier has been removed during primary forest activities allowing livestock access to a riparian area, ensure that new movement barriers are established that prevent livestock from accessing and degrading the riparian area and stream channel.

- 1. The *TSM* or *FSP holder* will ensure maintenance of *channel equilibrium* and *riparian function* by retaining all mature *windfirm* forest and other natural vegetation on *AFUs* along fish-bearing streams and direct tributaries to fish-bearing streams. *Windfirm* stems will be determined through the completion of a windthrow *assessment* by a *QRP* consistent with the procedures for Windthrow Handbook for British Columbia Forests (1994).
- 2. The *TSM* or *FSP holder* must ensure *primary forest activities* and activities on or above an *AFU* in the *FSW* do not destabilize the *AFU*.
- 3. The *TSM* or *FSP holder* will, where a *natural range barrier* has been removed during *primary forest activities* allowing livestock access to a riparian area, ensure that new movement barriers are established that prevent livestock from accessing and degrading the riparian area and stream channel.

# Source of Objectives #7 & #8: Road Crossings FSW GAR F-5-001

- 7) In snow sensitive zones in the *FSW*, ensure that primary forest activities do not have a material adverse effect on natural snowmelt rate and streamflow characteristics and patterns at the *sub-basin* level.
- 8) Manage rate of harvest in specified *basins and sub-basins* listed in Table 2.0 so that collectively Forest Stewardship Plan holders (and associated primary forest activities) do not exceed the targets for *Equivalent Clearcut Area* (ECA) specified in the 'Maximum ECA' column of Table 2.0, except where harvesting is required for the following reasons: a) harvesting is essential for insect control to curtail severe damage to forest values at the landscape level in a beetle management unit (BMU) classified as suppression for that insect, or b) assessment by a qualified professional shows that salvage harvesting of specific stands with high mortality does not materially increase the risk to hydrologic recovery in that watershed unit.

#### Result and/or Strategy:

- 1. The *TSM* or *FSP holder*, prior to authorizing or conducting *primary forest activities* that are located in the *snow sensitive zone*, will ensure a *QRP* has assessed the *primary forest activities* to confirm that they do not have a material adverse effect on natural snowmelt rate and streamflow characteristics and patterns at the *sub-basin* level. The *QRP* will develop a plan that ensures the *primary forest activities* result in:
  - a. desynchronized runoff amongst *cutblocks* and the remaining portion of the *watershed/basin/sub-basin*; and
  - b. distribution of forest *harvesting* operations by elevation, topographic exposure and/or *watershed routing efficiency*.
- 2. The *TSM* or *FSP holder* will only authorize or conduct *primary forest activities* in the *snow sensitive zone* of the *FSW* that are consistent with the recommendations from the *QRP* developed in clause 1 above.
- 3. The *TSM* or *FSP holder* will manage the rate of *harvest* in specified *basins* and *sub-basins* listed in table 2.0 of the *FSW* (*GAR* F-5-001) so that collectively, *BCTS* and all other *FSP* holders (and their associated *primary forest activities*) do not exceed the targets for *ECA* specified in the 'Maximum *ECA*' column of table 2.0 (*GAR* F-5-001), except where *harvesting* is required for the following reasons:
  - a. harvesting is essential for insect control; or
  - b. a *QRP* can demonstrate through an *assessment* that salvage *harvesting* of specific stands with high mortality does not materially increase the risk to *hydrologic recovery* in that watershed unit.

# **5.10** Water in Community Watersheds & Licensed Waterworks

# Source of Objectives: FPPR 8.2

The objective set by government for water being diverted for human consumption through a licensed waterworks in a community watershed is to prevent to the extent described in subsection (3) the cumulative hydrological effects of primary forest activities within the community watershed from resulting in:

a) a material adverse impact on the quantity of water or the timing of the flow of the water to the waterworks, or

b) the water from the waterworks having a material adverse impact on human health that cannot be

addressed by water treatment required under:

- (i) an enactment, or
- (ii) the licence pertaining to the waterworks.

*Applicable Area:* FDU 1 & 2 Appendix B: Community Watersheds & Licensed Waterworks Appendix H: Maps

#### Definitions for the purpose of this result or strategy:

"Community watershed" has the meaning given to it in FPPR 1(1). At the date of submission of this FSP, the FDU overlaps 3 known community watersheds: Rim Rock Creek (Community of Alexis Creek), Harold Creek (Community of Dog Creek), Weetman Creek (South Lake Side Williams Lake). The boundaries of these Watersheds are defined in Appendix H Maps.

"Community watershed assessment" means an assessment of the cumulative hydrological effects of existing and proposed harvesting and road construction within a community watershed, completed by a Qualified Resource Professional, which evaluates the potential for activities to result in:

- a. a material adverse impact on the quantity of water or the timing of the flow of the water from the *licensed waterworks* as identified in Appendix H Maps; and
  - i. the water from the *licensed waterworks* having a material adverse impact on human health that cannot be addressed by required water treatment;
  - ii. includes recommendations to mitigate potential material adverse impacts; and
- b. where it relates to an existing *assessment*, is considered relevant if the extent and magnitude of the proposed activities has been included in the scope of the *assessment*.

"Licensed Waterworks" as defined in FPPR 1(1).

- 1. In relation to the objective for water in *community watersheds* that is set out in *FPPR* 8.2, for portions of the *FDUs* that fall within a *community watershed*, the *TSM* or *FSP holder* adopts *FPPR* 59 [Protecting Water Quality], 60 [Licensed Waterworks], 61 [Excavated or Bladed Trails], 62 [Roads in a Community Watershed], 63 [Use of Fertilizers] and 84 [Notice road in community watershed] as those sections were on the date of submission of this *FSP*. In addition to the adoption of these practice requirements, the *TSM* or *FSP holder* will:
  - a. if a *community watershed assessment* has not been completed for that *community watershed*, or if a *community watershed assessment* is greater than 5 years old:
    - i. ensure a *community watershed assessment* is completed by a *QRP* prior to declaration of *ADV* of a *cutblock* or *road* within the *community watershed*; and
    - ii. ensure *primary forest activities* are conducted consistent with the recommendations contained within the assessment completed by the *QRP*.
- 2. Prior to the commencement of *primary forest activities*, the *TSM* will notify each holder of a *TSL* entered into, or a *RP* granted, that proposed development is in a *community watershed* or within 100m of any *licenced waterworks*.

# **5.11 Biodiversity**

#### 5.11.1 Seral Stage

#### Source of Objective: FPPR Sec. 9

The objective set by government for biodiversity at the landscape level is, without unduly reducing the supply of timber from British Columbia's forests, 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.

#### Source of Objective: LAO objective 5

Maintain biodiversity in accordance with the landscape units and biodiversity emphasis as defined by the spatial dataset, Cariboo-Chilcotin Landscape Units.

#### Source of Objective: CCLUP 90 Day Report

To manage for mature plus old seral stage targets according to the targets and seral stage definitions in Table 7 of the Biodiversity Conservation Strategy (1996) for the Cariboo-Chilcotin Land-Use Plan.

Applicable Area: FDU 1 & 2 Appendix B: Landscape Units Appendix H: Maps

#### Definitions for the purpose of this result or strategy:

- "Mature+Old seral target area" (M+O) means the target for the minimum amount of mature seral or older forest present in a seral assessment unit, which is determined by the applicable target % in Table 13 multiplied by the total productive forest landbase of the seral assessment unit.
- "Mature seral or older forest" means Mature Plus Old stand age as defined in Table 13 for the applicable BEC zone.
- "Mature plus old seral deficit unit (M+O deficit unit)" means a seral assessment unit where, at the time of declaration of Annual Development Volume (ADV), the amount of mature seral or older forest present in a seral assessment unit is less than the M+O seral target area, based on stand age in the most current forest inventory or best available inventory, and accounting for all completed, approved, submitted harvesting and wildfire impacts that are not reflected in the most current forest inventory.
- "Mature recruitment area" means a less than mature seral aged stand in a M+O deficit unit that is designated by the TSM or FSP holder and submitted to FLNRORD as being reserved from harvest to allow sufficient recruitment into mature seral age, until the seral assessment unit is no longer in M+O seral deficit.
- "Mature recruitment strategy" means a strategy to re-establish the mature+old seral target area as soon as possible. This strategy is done by adding the less than mature hectares contained in no-harvest areas, including parks, protected areas, ecological reserves, reserve areas and wildlife tree retention areas first to determine if they contain enough hectares to balance the deficiency. If, once accounting for these areas, there are still not enough hectares to meet the minimum mature+old seral target area, then additional mature recruitment areas are selected from the seral assessment unit based on the following priority:
  - 1. in order from oldest to youngest available, and
  - 2. displaying *stand attributes* most conducive to regaining mature seral condition as soon as possible,
  - 3. that contribute to achieving or trending towards patch size target ranges outlined in Table 15 for the applicable NDT/BEC unit.

The additional mature recruitment areas selected outside of the no-harvest areas will be submitted spatially to FLNRORD and these areas will be no-harvest until the seral assessment is not in a M+O seral deficit.

"Seral assessment unit" means an area unit generated by the overlay of:

1. Landscape units (LUs) and biodiversity emphasis objective (BEO) defined in the Cariboo-Chilcotin Land-Use Plan Land Act Order spatial data set: Cariboo-Chilcotin landscape units, and

- 2. The accompanying most current government endorsed Biogeoclimatic Ecosystem Classification (*BEC*), and
- 3. Amalgamated as per the LU/BEC units listed in Appendix C, and
- 4. A current productive forest landbase dataset.

"Stand attributes" means the amounts and characteristics, consistent with the *BEC* subzone and variant, for large living trees, standing dead trees, coarse woody debris, tree species diversity, and structural diversity, as described in Appendix 5: Important Stand Attributes of the *Biodiversity Guidebook* (1995).

#### Result and/or Strategy:

1. The TSM or FSP holder will not authorize or conduct harvest of mature seral or older forest in a M+O deficit unit, or cause the amount of mature seral or older forest in a seral assessment unit to be less that the applicable M+O seral target area, unless one or more of the following criteria are met:

#### a. criterion A

- harvest is for the purpose of salvage where pine represents 70% or greater of the merchantable basal area within the area to be harvested and greater than 50% of the merchantable pine stems are red, grey, or green attacked mountain pine beetle; or
- ii. *harvest* is for the purpose of salvage where the mortality of the *merchantable* conifer basal area is greater than 50%; or
- iii. *harvest* is for the purpose of salvage and the *harvest* authority is issued under a license with a specific stand eligibly criteria specifying a dead or damaged stand, in which case seral drawdown will be consistent with the criteria in the license;

#### b. criterion B

- i. the area is *harvested* using a partial cut system; and
- ii. the basal area to be removed from the area to be *harvested* is less than 30% of the pre-*harvest* basal area of conifer; and
- iii. the *harvest* is evenly distributed across the pre-*harvest* diameter classes, or the *harvesting* is a *thinning from below* treatment that removes only *intermediate* and *overtopped crown classes*; and
- iv. 70% of the pre-harvest stand attributes are retained post-harvest;

#### c. criterion C

- i. *harvesting* is required within *primary* and *interface fuel breaks*, in an approved community or regional wildfire plan, where impacts to *primary old seral forest characteristics* are minimized:
  - 1. reduction of fine surface debris, ladder fuels and small diameter trees in *intermediate* and *overtopped crown classes* and,
  - 2. separation of tree crowns among individual trees or clumps within the dominant and co-dominant layers sufficient to mitigate the spread of a passive crown fire, to a maximum spacing of 6 metres between crowns.
- ii. *harvesting* is within a designated Wildfire Urban Interface area, reduction of fine surface debris, dead trees, ladder fuels and small diameter trees in *intermediate* and *overtopped crown classes*.

#### d. criterion D

i. Harvesting is essential for insect control.

- 2. Where criterion A is used to allow for *harvest* in a M+O *deficit unit*, the *TSM* or *FSP holder* will ensure:
  - a. that the *seral assessment unit* is not drawn down below the *old seral* target area threshold, as per Table 14, and
  - b. prior to declaration of *ADV* for the proposed *harvest*, sufficient *mature recruitment area*, as identified by the completed mature *recruitment strategy*, has been designated as *no-harvest*.
- 3. Stands that are indicated as mature or *old seral* age in the most current forest inventory that have greater than 70% mortality at the individual *merchantable* stem level either through severe wildfire or windthrow damage will be considered to be less than mature age. Individual trees are determined to be dead if:
  - a. crown mortality from fire scorch is >75%; or
  - b. the bole and roots of the tree are severely damaged by wildfire;
  - c. the tree has been uprooted by the wind.

Table 13 – Mature plus old seral stage age definitions and targets

NDT	BEC Zone	Seral Stage Age Definition	Target minimui	m % of total product seral assessment uni	
		(years)	Low BEO	Intermediate BEO	High BEO
		Mature +	Mature + Old	Mature + Old	Mature + Old
		Old	min.	min.	min.
1	ESSF	>120	19	36	54
1	ICH	>100	17	34	51
1	MH	>120	19	36	54
2	CWH	>80	17	34	51
2	ESSF	>120	14	28	42
2	ICH	>100	15	31	46
2	SBS	>100	15	31	46
3	ESSF	>120	14	23	34
3	MS	>100	14	26	39
3	SBPS	>100	8	17	25
3	SBS	>100	11	23	34
3	ICH	>100	14	23	34
4	IDF – Fir group	>100	22	43	65
4	IDF – Pine group	>100	11	23	34

Table 14 – Minimum old seral target % drawdowns

NDT	BEC Zone	Minimum % of total productive forest in seral assessment unit that is old seral for salvage draw-down in M+O deficit units				
		Low BEO	Intermediate BEO	High BEO		
1	ESSF	19	19	28		
1	ICH	13	13	19		
1	MH	19	19	28		
2	CWH	9	9	13		
2	ESSF	9	9	13		
2	ICH	9	9	13		
2	SBS	9	9	13		
3	ESSF	14	14	21		
3	MS	14	14	21		
3	SBPS	7	7	10		
3	SBS	11	11	16		
3	ICH	14	14	21		
4	IDF – Fir group	21	21	32		
4	IDF – Pine	11	11	16		
	Group					

# **5.11.2** Spatial/Temporal Distribution of Cutblocks, Landscape Connectivity and Species Composition

#### Source of Objective: FPPR Sec. 9

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

#### Source of Objective: CCLUP 90 Day Report

Conserve biological diversity through ... objectives for ... *landscape connectivity,... species composition, temporal distribution of cutblocks* .... These targets will be applied at the Landscape Unit Level ... *[and]* will be based on the Biodiversity Conservation Guidelines *[aka Biodiversity Guidebook published September 1995]*.... Application of these guidelines in all zones and polygons is required .... Consistent with the targets, maintenance of deciduous (Aspen) and spruce components are important considerations on the Chilcotin Plateau.

# Source of Objective CCLUP 90 Day Report Appendix 3

To manage for grizzly bear, ... and other sensitive habitats within the areas identified as riparian buffers, ... and throughout the polygon under the biodiversity conservation strategy, *including key leading spruce* stands [or] including key leading deciduous stands [or] including key aspen stands.

*Applicable Area:* FDU 1 & 2 Appendix B: Landscape Units & Cariboo Resource Development Zones Appendix H: Maps

#### Definitions for the purpose of this result or strategy:

"Key leading spruce stands" means areas >2 hectares (ha) in size where >70% of stand basal area is spruce and are located in one of the following CCLUP sub-unit management zones: Taseko Lake, Kluskus,

Anahim Lake, Chezacut, Kleene Kleene, Eagle or Palmer Lake.

"Key leading deciduous stands" means areas >2ha in size that are leading deciduous stands and located in the Quesnel or Beaver Valley CCLUP sub-unit management zones.

"Key leading aspen stands" means areas >2ha in size that are leading aspen stands and located in the Lower Blackwater CCLUP sub-unit management zone and Chilcotin Plateau (Taseko Lake, Kluskus, Anahim Lake, Chezacut, Kleene Kleene, Eagle or Palmer Lake CCLUP sub-unit management zones). "Patch assessment unit" means an area unit generated by the overlay of:

- a. *landscape units* (*LUs*) defined in the *CCLUP LAO* spatial data set: Cariboo-Chilcotin Landscape Units, and
- b. the accompanying most current government endorsed Biogeoclimatic Ecosystem Classification (*BEC*) and *Natural Disturbance Type (NDT)* classification.

"Patch size assessment" means an assessment completed within the last 2 years, conducted consistent with the methodology outlined in "Regional Biodiversity Conservation Strategy Update Note #4", that:

- a. calculates the amount of each seral stage currently present in the *patch assessment unit* that is in small, medium and large size patches according to the criteria in Table 15, and
- b. calculates the amount of the seral stage(s) created by the proposed *harvest* area that is in small, medium and large size patches according to the criteria in Table 15, and
- c. is based on the most current forest inventory, or the most recent government endorsed patch size analysis, and
- d. accounts for all completed and approved *harvesting* and wildfire impacts that are not reflected in the most current forest inventory or most recent government endorsed patch size analysis.

Table 15: Patch size target ranges

	Patch Size Class (target % range in each class)						
NDT	BEC unit	0-40ha	41-80ha	80-250ha	40-250ha	>250ha	
1	all	30-40	30-40	20-40	n/a	0	
2	all	30-40	30-40	20-40	n/a	0	
3 Douglas Fir throughout	SBSdw, SBSmh, SBSmw, ICHdk	20-30	25-40	30-50	n/a	0	
3 Douglas Fir restricted or absent	all others	10-20	n/a	n/a	10-20	60-80	
4	all	30-40	30-40	20-30	n/a	0	

- 1. The *TSM* will, prior to a *cutblock* or *road* being declared as *Annual Developed Volume (ADV)*, or *FSP holder* submits a CP will, conduct a *patch size assessment* that demonstrates how the proposed *harvest* will either:
  - a. within the *patch assessment unit*, maintain the patch size distribution of the seral stage created by the *harvest* consistent with the patch size target ranges outlined in Table 15, or
  - b. within the *patch assessment unit*, trend the patch size distribution of the seral stage created by the *harvest* toward the patch size target ranges outlined in Table 15.

- 2. To the extent practicable, the proposed *harvest* must not cause the patch size distribution of the resulting seral stage(s) in a *patch assessment unit* to be inconsistent with, or deviate further from, the patch size target ranges outlined in Table 15, unless:
  - a. one or more of the criteria A D are met in Seral Stage 5.11.1; or
  - b. the proposed *harvest* trends towards the desired patch size targets outlined in Table 15.
- 3. The TSM will, prior to a cutblock or road being declared as Annual Developed Volume (ADV), or FSP holder submits a CP will, conduct an assessment that demonstrates how the design of stand level retention has maintained the natural connectivity characteristics of mature and old forests in the area(s) of the proposed harvest, according to the Natural Connectivity Characteristics Frequency outlined in Table 16 as described in the Biodiversity Guidebook (1995).
- 4. The TSM or FSP holder will when designing harvest proposals that include areas of key leading spruce stands, key leading deciduous stands or key leading aspen stands, demonstrate in the site plan how these stands were considered in the design of wildlife tree retention areas (WTRA) for the proposed development.

Table 16 – Natural Connectivity Characteristics Frequency

NDT	BEC unit	Natural Co	nnectivity Ch	aracteristics F	requency			
·		upland to upland	upland to stream	upland to wetland	cross- elevational	wetland complex	stream riparian	island remnants
1	ESSFwc3, ESSFwk1, ICHwk2, ICHwk4, MHmm2	high	high	high	high	low- moderate	high	low
2	CWHds1, CWHms1, ESSFmv1, ESSFmw, ESSFxv, ICHmk3, SBSwk1	high	moderate	moderate	high	low	high	low
3	SBPSdc, SBPSmc, SBPSmk, SBPSxc, SBSdk, SBSmc3, SBSdw1, SBSdw2	low	low	low	low	high	low	high
	MSxv	moderate- high	moderate- high	moderate- high	low	high	low	moderate
	ESSFdc, ESSFxc, MSdc, MSxk, SBSmc1, SBSmc2, SBSmm, ICHdk3	low- moderate	low- moderate	high	moderate	moderate	high	moderate
4	IDFdk3, IDFdk4	moderate- high	moderate- high	moderate- high	low	high	low	moderate
	BGxh3, BGxw2, IDFmw2, IDFww, IDFxh2, IDFxm, IDFxw	high	high	high	high	low- moderate	high	low

# **5.11.3 Old Growth Management Areas**

Source of Objective: LAO objectives 8, 9, 10 & 11

Maintain as no-harvest areas the Permanent *OGMA*-static, Permanent *OGMA*-rotating, and Transition *OGMA*s as defined by the spatial dataset: Cariboo-Chilcotin Old Growth Management Areas.

# Applicable Area: FDU 1 & 2 and Appendix B: OGMA Appendix H: Maps

#### Result and/or Strategy:

- 1. The *TSM* or *FSP holder* will not authorize or conduct *primary forest activities* in *permanent OGMA-static, permanent OGMA-rotating,* or *transition OGMA*, as defined by the spatial dataset Cariboo-Chilcotin *Old Growth Management Areas*, unless one or more of the following criteria are met:
  - a. *Harvesting* incursions of 10 ha or less that better align the *OGMA* boundaries with intended geographic features where the *OGMA* boundaries were clearly intended to follow a geographic feature, based on recommendations of a *QRP*, which include:
    - i. creeks or existing roads that were established prior to the *OGMA* establishment, or,
    - ii. other geographic features in consultation with appropriate FLNRORD staff.
  - b. Where *harvest* is *essential for insect control*, and all known *infestation sites* on crown provincial forest land (excluding area-based tenures) within 500m of the infested *OGMA* are addressed before or in conjunction with entries into the *OGMA*.
  - c. Road or fence construction where no other practicable location is available.
  - d. *Thinning-from-below* to enhance *old seral stand attributes* in *OGMAs* located within designated *MDWR* in the *shallow and moderate snowpack zones*.
  - e. Within *primary* and *interface fuel breaks*, in an approved community or regional wildfire plan, where impacts to *primary old seral forest characteristics* are minimized:
    - i. reduction of fine surface debris, ladder fuels and small diameter trees in intermediate and *overtopped crown classes* and,
    - ii. separation of tree crowns among individual trees or clumps within the dominant and co-dominant layers sufficient to mitigate the spread of a passive crown fire, to a maximum spacing of 6 metres between crowns.
  - f. Guyline tiebacks and no other practicable location is available.
  - g. In a permanent OGMA-rotating, where:
    - i. mature conifer mortality is >50% by basal area for trees >17.5 cm dbh, or
    - ii. stand age is >200 years and the stand is >70% lodgepole pine by basal area for trees >17.5 cm dbh.
  - h. In a transition OGMA where:
    - i. conifer mortality >50% of stand basal area, and
    - ii. equivalent *old seral* forest exists in locations contributing to the permament *OGMA* target in the same *LU-BEC unit*.
- 2. The *CP*, *TSL* and/or *RP* application, in conjunction with the RESULTS reporting completed by the *TSM* or *FSP holder*, will serve to address the reporting requirement associated with changes to *OGMAs* resulting from *harvesting* or *road* building conducted under clause 1 of this *strategy*.

#### 5.11.4 Cariboo-Chilcotin Grassland Benchmark Area

Source of Objectives: CCLUP 90 Day Report

....To manage in conjunction with protected areas to maintain or enhance key grassland habitats and to maintain regionally significant Beecher Prairie pothole habitat values.......

Source of Objectives: LAO objective 25

To implement silviculture practices that facilitate restoration or open grassland condition.....

Applicable Area: FDU 1 & 2 and Appendix B: Grassland Benchmark Appendix H: Maps

Definitions for the purpose of this result or strategy:

"Grassland benchmark areas (GBA)" means the areas defined by the Cariboo Chilcotin Land Use Plan Land Act Order spatial data set: Cariboo-Chilcotin Grassland Benchmark Area.

#### Result and/or Strategy:

- 1. Within *grassland benchmark areas* the TSM or FSP holder will not:
  - a. authorize or conduct the construction of *roads*, *secondary roads*, trails or landings unless no other practicable alternative exists for accessing and/or extracting timber, or
  - b. apply herbicide treatments, or
  - c. conduct reforestation activities.
- 2. Within grassland benchmark areas, the TSM or FSP holder will ensure:
  - a. all *primary forest activities* are limited to frozen ground conditions, unless no other practicable alternative exists for access and/or extracting timber; and
  - b. all primary forest activities will not exceed 5% soil disturbance; and
  - c. processing and decking of timber are done outside the *grassland benchmark areas* where practicable; and rehabilitation of all *roads* not required for long term access, *secondary roads* and landings by re-contouring and grass seeding with ecologically suitable species for the site following *harvest* and before the next winter season.
- 3. The *TSM* or *FSP holder* will ensure for those portions of *cutblocks* authorized within the *grassland benchmark areas*, at the *conclusion of harvesting*:
  - a. retention of all conifer stems > 65cm *dbh* except for the following:
    - i. stems containing active bark beetle and are located within a *suppression BMU* for that insect pest, or
    - ii. felling or modifying a tree that is a *safety hazard*, if there is no other practicable option for addressing the *safety hazard*.
  - b. for each stem >65cm *dbh* retained, retention of 1 to 4 conifer stems > 12.5cm *dbh* targeting stems *adjacent* to the stems > 65cm *dbh* retained; and
  - c. retention of all deciduous stems where practicable.
- 4. The *TSM* or *FSP holder* will apply Appendix G Stocking Standards Sec. Variation from Stocking Standards clause 9 Grassland Benchmark for portions of *cutblocks* that fall within *GBA*.
- 5. *Grassland benchmark area* spatial adjustments are allowed that align to the intended historical location of the *grassland benchmark area* boundaries, based on the recommendations of a *QRP* and in consultation with appropriate *FLNRORD* staff.

#### **5.11.5 Mature Birch Retention**

Source of Objective: LAO objective 24

Maintain at least 40 percent of the existing, mature birch to allow for First Nations cultural use within *cutblocks* in the areas of Beaver Valley, Polley, Lower Cariboo, and Cariboo Lake Landscape Units as defined by the spatial dataset, Cariboo-Chilcotin Birch Areas for First Nations.

Applicable Area: FDU 1 & 2 and Appendix B: Scenic Areas, Scenic Corridors & Appendix H: Maps

Definitions for the purpose of this result or Strategy:

"Mature Birch" means Paper Birch (Betula papyrifera) > 60 years old.

#### Result and/or Strategy:

- 1. The *TSM* or the *FSP holder* will ensure, upon the *conclusion of harvest*, that the amount of *mature birch* existing before harvest is not reduced below 40 percent of the existing basal area/ha, to the extent practicable, within the gross area of each *TSL*. This *result* applies to the areas defined by the Cariboo-Chilcotin Land-Use Plan Land Act Order spatial data set: Cariboo-Chilcotin Birch Areas within the following *landscape units*:
  - Beaver Valley
  - Polley
  - Lower Cariboo
  - Cariboo Lake
  - Gerimi
  - Dragon

This *result* also applies to in the following *landscape units when* identified through information sharing as per FSP section 5.14.3 Cultural Heritage Resources

- Hawkes Creek
- Big Lake
- Likely
- Horsefly

# 5.11.6 Wildlife and Biodiveristy – Stand Level

# Source of Objective: LAO Objective 6

Where harvesting removes >50 percent of the pre-harvest stand basal area or where the harvest is part of a shelterwood silvicultural system, meet or exceed the minimum areas for **wildlife tree retention** for each harvest area (cutblock or cutting permit) as set out in schedule 1 **Wildlife Tree Retention** Targets.

#### Source of Objective: LAO Objective 7

Where practicable, in partially cut stands, where harvesting removes less than 50 percent of the pre-harvest basal area, retain high-value, wildlife trees up to the limits in Schedule 1 **Wildlife Tree Retention** Targets.

#### Applicable Area: FDU 1 & 2

#### Definitions for the purpose of this Result or Strategy:

- "Key habitat types" means areas identified by a *QRP* including: dens, nests, mineral licks, animal habitat (security cover, thermal cover, denning, rearing, foraging and movement).
- "Render ineffective" means, in the opinion of a *QRP*, as documented in a Site Plan or Support Document, damaged to a degree that the *WTRA* or *WTP* no longer has attributes consistent with a mature or *old seral* condition with consideration of the original intent of the *WTRA* or *WTP* (if known).
- "Shelterwood Silvicultural System" means a silvicultural system in which trees are removed in a series of cuts designed to achieve a new even-aged stand under the shelter of the remaining trees.
- "Short-term reserve" means a retention area prescribed to be in place for 30 years from the harvest authority issuance.
- "Wildlife tree" as defined in FPPR 1 means "...a tree or group of trees that (a) provide wildlife habitat, and (b) assist in the conservation of stand level biodiversity."

- 1. Where *harvesting* removes > 50 percent of the pre-*harvest merchantable* stand basal area or where the *harvest* is part of a *shelterwood silvicultural system*, the *TSM* or *FSP holder* will ensure upon the *conclusion of harvesting*:
  - a. the minimum areas for *wildlife tree* retention, expressed as a percentage of the gross *harvest* area of the *TSL* or *CP*, have been met as set out in Appendix D,
  - b. wildlife tree retention areas are to be located in the following <sup>1</sup>priority areas:
    - i. wildlife habitat areas, ungulate winter ranges, riparian areas, scenic areas, key leading spruce stands<sup>1</sup>, key leading deciduous stands<sup>1</sup>, key leading aspen stands<sup>1</sup>, and areas required for meeting natural connectivity as described in table 16 and in other sections of this FSP;
    - ii. areas containing key habitat types and high value wildlife trees as identified by a *ORP*;
    - iii. areas containing red listed species & plant communities;
    - iv. areas containing archeological sites;
    - v. areas containing First Nation cultural heritage sites; or
    - vi. areas that minimize dash distance to less than 500m with the *wildlife tree* retention area consisting of areas greater than 0.25ha in size; and
    - vii. areas representing the pre-harvest mature component attributes of the *cutblock*.
- 2. Where *harvesting* removes < 50 percent of the *merchantable* pre-*harvest* basal area, the *TSM* or *FSP holder* will ensure, to the extent practicable, that *high value wildlife trees* are retained up to the targets specified in Appendix D by *LU-BEC Unit* and expressed as a percentage of the gross *harvest* area of a *TSL* or *CP* as determined by a *QRP* or a timber cruise.
- 3. Individual stems reserved from *harvest* within the *harvest* area can contribute to the *wildlife tree retention area* target on a basal area or volume equivalency basis.
- 4. The *TSM* or *FSP holder* will ensure the *wildlife tree retention areas* associated with each *cutblock*, as per *FPPR* 67, are restricted from *harvesting* until they develop attributes that are consistent with a mature seral condition, except for the following circumstances:
  - a. felling or modifying a tree that is a *safety hazard*, if there is no other *practicable* option for addressing the *safety hazard* and the felled or modified portion of the tree is retained on-site:
  - b. *harvesting* is required within *primary and interface fuel breaks* in an approved community or regional wildfire plan, where impacts to *primary old seral forest characteristics* are minimized by:
    - i. reduction of fine surface debris, ladder fuels and small diameter trees in *intermediate and overtopped crown classes*, and
    - ii. separation of tree crowns among individual trees or clumps within the dominant and co-dominant layers sufficient to mitigate the spread of a passive crown fire, to a maximum spacing of 6 metres between crowns.

<sup>&</sup>lt;sup>1</sup> see *FSP* section 5.11.2 Spatial/Temporal Distribution of Cutblocks, Landscape Connectivity and Species Composition for definitions.

- c. harvesting is essential for insect control, and all identified infestation sites on crown provincial forest land (excluding area-based tenures) within 500m of the infested WTRA are addressed prior to or in conjunction with harvest entries into the WTRA;
- d. to facilitate road construction or address operational constraints to cable yarding, where there is no other practicable option.
- e. to facilitate *harvesting* of a *cutblock* for tail holds, guy line tiebacks, designated skid trails or yarding corridors;
- f. where the WTRA is damaged as a result of wind, fire or forest health factors and, in the opinion of a QRP, the WTRA is rendered ineffective;
- 5. Despite clause 1, the *TSM* or *FSP holder*, upon the *conclusion of harvesting*, will have increased the minimum target percentage for the *LU-BEC wildlife tree* retention to a percent consistent with Table 17 or greater where the *TSL* or *CP* has all the following three attributes:
  - a. west of the Fraser River; and
  - b. within mature+old seral deficit landscape units; and
  - c. within either the SBPS, MS, or SBS Biogeoclimatic Zones.

The increased percentage above the *LU\_BEC* target is to be established as *short-term* reserve, not *WTRA*.

Table 17 – Proportion of Stand-level Retention based on gross cutblock size

Cutblock Size	Percent of Opening
	Un-harvested/retained
<50 ha	10 %
50 – 250 ha	10 – 15 %
250 – 1000 ha	15 – 25 %
> 1000 ha	> 25 %

- 6. Areas that have been set aside under the Chief Forester's Guidance on Landscape and Stand-level Structural Retention in Large-Scale Mountain Pine Beetle Salvage Operations and identified as *WTRA* or reserves in RESULTS, or under the Quesnel District Guidance for Conservation Legacy Areas, will continue to be protected until the conditions described in the guidance are met.
- 7. Where the *TSM* authorizes or the FSP holder conducts *harvest* within a *wildlife tree retention area* and,
  - a. the *harvesting* results in the *WTRA* dropping below the targets specified for the *TSL* or *CP* in Appendix D, the *TSM* or *FSP holder* will:
    - i. ensure that a suitable replacement area of equal size is re-established, and
    - ii. the replacement area will be the closest available location consistent with the priorities and design factor for locating *WTRA* in clause 1 b; and
    - iii. the replacement area will be a minimum of 0.25 ha in size and;
    - iv. the change will be reported in RESULTS by May 1 of the following year; or
  - b. the *harvesting* does not cause the *wildlife tree retention area* to drop below the targets specified in Appendix D for the *TSL* or *CP* the *TSM* or *FSP holder* will:
    - i. report the change in RESULTS by May 1 of the following year.

# **5.12 Visual Quality**

Source of Objective: LAO objective 26

Maintain the visual quality objectives for scenic areas as defined by the spatial dataset, Cariboo-Chilcotin Scenic Areas.

Source of Objective: LAO Objective 27

Despite objective (a), harvesting is permitted where it is essential for insect control to curtail severe damage to forest values at the landscape level in a beetle management unit (BMU) classified as suppression for that insect pest.

Source of Objective: LAO Objective 28

Along the scenic corridors identified by the spatial dataset Cariboo-Chilcotin Scenic Corridors, design harvest areas to mimic existing natural openings, vegetation patterns and natural features.

Source of Objective: LAO Objective 29

Design harvest areas to mimic existing natural openings, vegetation patterns, and natural features when viewed from the high elevation viewpoints as defined by the spatial dataset, Cariboo-Chilcotin High Elevation Viewpoints.

*Applicable Area: FDU* 1 & 2 and Appendix B: Scenic Areas, Scenic Corridors & High Elevation Viewpoints Appendix H: Maps

#### Definitions for the purpose of this result or strategy:

- "Alteration" means changing or making something different as a result of conducting harvesting or road construction.
- "Public consultation" means published notices in the local newspaper in Williams Lake and/or Quesnel at least 30 days prior to being considered as ADV.
- "Severely burnt scenic areas" means the portions of scenic areas that are visible from the significant public viewpoints that have  $\geq$ 75% of the trees with  $\geq$ 75% crown mortality ( $\geq$ 75% is brown needles) from scorch.
- "Significant public viewpoint" means one or more of the following where accessible by the public: 1) lake surfaces for a scenic area associated with a lake, 2) river channel for a scenic area associated with a river, 3) existing tourism facilities and key tourist use areas, 4) existing tourism operations as defined in 5) points for highways deemed significant by a QRP, 6) points for parks and backcountry areas deemed significant by a QRP, and 7) other viewpoints that are deemed significant by a QRP.

- 1. The *TSM* or *FSP holder* will ensure, prior to the declaration of *ADV* or submission of a *CP*, within a *Visual Quality Objective* (*VQO*) polygon in a known *scenic area* (defined by the Cariboo-Chilcotin Land-Use Plan Land Act Order spatial data set: Cariboo-Chilcotin Scenic Areas) as displayed in Appendix H Maps, the following:
  - a. a QRP will conduct a visual impact assessment (VIA) that:
    - i. ensures the *VQO alteration* resulting from the size, shape and location of *cutblocks* and *roads* is consistent with the following specified definitions as per *FPPR* 1.1 Categories of Visually Altered Forest Landscapes:
      - 1. **Preservation (P)** *VQO*: When assessed from a *significant public viewpoint*, is very small in scale and not easily distinguishable from the pre-*harvest* landscape;
      - 2. **Retention** (**R**) *VQO*: When assessed from a *significant public viewpoint*, is difficult to see, small in scale, and natural in appearance;

- 3. **Partial Retention (PR)** *VQO*: When assessed from a *significant public viewpoint*, is easy to see, small to medium in scale, and is natural and not rectilinear or geometric in shape;
- 4. **Modification (M)** *VQO*: When assessed from a *significant public viewpoint*, is very easy to see, and is large in scale and natural in appearance, or small to medium in scale but with some angular characteristics:
- 5. **Maximum Modification (MM)** *VQO*: When evaluated from a significant public viewpoint, is very easy to see, and is very large in scale, rectilinear and geometric in shape, or both.
- ii. assesses 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
- iii. utilizes the guidance for predicting VQOs in:
  - 1. Tables 3 and 4 of the *Visual Impact Assessment Guidebook*, 2<sup>nd</sup> Edition, *January* (2001); and/or
  - 2. FREP Protocol for Visual Quality Effectiveness Evaluation Procedures and Standards FREP (2008).
- 2. Despite clause 1, the extent of *VQO alteration* can be exceeded:
  - a. Where *harvest* is *essential for insect control*, and all known *infestation sites* on crown provincial forest land within 500m of the infested *scenic area* are addressed before or in conjunction with entries into the *scenic area*;
  - b. *Harvesting* is required within *primary* and *interface fuel breaks*, in an approved community or regional wildfire plan, where impacts to *primary old seral forest characteristics* are minimized:
    - i. reduction of fine surface debris, ladder fuels and small diameter trees in *intermediate* and *overtopped crown classes*.
- 3. The *TSM* or *FSP holder* will ensure, prior to the declaration of *ADV* or submission of *CPs*, within a scenic corridor defined by the spatial datasets Cariboo-Chilcotin Scenic Corridors displayed in Appendix H maps, the *cutblocks* and *roads*, when viewed from a *significant public viewpoint*, will be designed to mimic:
  - a. existing natural openings;
  - b. vegetation patterns; and
  - c. natural features.
- 4. The *TSM* or *FSP holder* will ensure, prior to declaration of *ADV* or submission of *CPs*, the viewshed of a Cariboo Chilcotin high elevation viewpoint as defined by the spatial datasets Cariboo Chilcotin High Elevation Viewpoints displayed in Appendix H maps, the *cutblocks* and *roads* will be designed to mimic:
  - a. existing natural openings; or
  - b. vegetation patterns; and
  - c. natural openings.
- 5. Scenic corridors or high elevation viewpoints are exempt from the requirement of conducting a *VIA* or achieving a *VQO*.

- 6. In addition to clause 1, in *severely burnt scenic areas* where salvage will exceed the alteration allowed under the *VQO*s for partial retention and modification, but may enhance post-wildfire green-up through post-*harvest* reforestation, the following will occur:
  - a. a reforestation plan is completed that demonstrates that exceeding the *VQO* will result in a net benefit to visual green-up recovery,
  - b. *public consultation* is conducted regarding the proposed *cutblock* or *road*, and
  - c. harvest design will:
    - i. not be rectilinear or geometric in shape,
    - i. retain green trees, and
    - ii. where practicable:
      - 1. utilize multiple smaller openings vs single large openings,
      - 2. describe the retention within *cutblock* boundaries,
      - 3. expedite rehabilitation of alteration from *roads*, *secondary roads*, trails and landings visible from viewpoints, and
      - 4. consider and incorporate input received from *public* consultation.
- 7. The *TSM* or *FSP holder* will ensure at the *conclusion of harvesting* that, subject to clauses 1-6, *alterations* as a result of *primary forest activities* authorized by the *TSM* or conducted by the *FSP holder* achieve the *VQOs* consistent with the definitions in *FPPR* 1.1 Categories of Visually Altered Forest Landscapes.

# 5.13 Recreation

#### **5.13.1 Tourism**

#### Source of Objective: CCLUP 90 Day Report

To maintain the visual quality in the viewshed surrounding existing tourism operations...

Forestry Strategies (to integrate with tourism needs) in order for the forest industry to operate in or near important tourism areas, their operations should incorporate tourism needs for high quality environments, including:

- 1. Tranquil Settings forest operations in the mid and especially the back country should be conducted outside of the peak tourism season, to reduce the impact of noise.
- 2. Scenic Quality forest operations should either avoid or minimize impacts on scenic quality. Any impacts that do occur must be rehabilitated within a specified time period.
- 3. Air Visibility Quality smoke generation (through slash burning, etc.) should not impact tourism areas during peak tourism season.
- 4. Setting Diversity alternative silvicultural and harvesting systems should be employed to provide for a variety of forest settings.
- 5. Controlled Access access management planning should precede operations in order to incorporate tourism industry needs.

Minimize or mitigate impacts to significant other commercial and non-commercial values and opportunities that occur in association with forest lands, including wildlife, fish, water, range, recreation and tourism.

# Applicable Area: FDU 1 & FDU 2 and Appendix B: Crown Tenure Tantalis\_Tenure

## Result and/or Strategy:

- 1. To maintain tourism needs for high quality environments, the *TSM* or *FSP holder* will ensure *primary forest activities* conform to the strategies in the following *FSP* sections: 5.3 Wildlife, 5.4 Riparian, 5.11 Biodiversity, 5.12 Visual Quality and 5.13 Recreation.
- 2. The *TSM* or *FSP holder* will, prior to the declaration of *ADV* of a planned *cutblock* or *road* or submissions of *CPs* or *RPs*:
  - a. notify overlapping applicable licensed commercial recreation tenure holders within 2 kilometers of the planned *cutblock* or *road* using the commercial recreation tenure dataset (WHSE\_TANTALIS.TA\_CROWN\_TENURES\_SVW); and
  - b. notify *known* private tourism operators within 2 kilometers of the planned *cutblock* or *road*; and
  - c. provide these parties a minimum of 60 days or less, as approved by the applicable *SDM*, to identify any issues or concerns they may have in the vicinity of the proposed *cutblock* or *road*, and
  - d. create a *mitigation strategy* for tourism for the proposed *cutblock* or *road*.
- 3. The *TSM* or *FSP holder* will consider comments received in clause 2 during the development phase of new *cutblocks* and *roads* and:
  - a. demonstrate a commitment to minimize or mitigate impacts identified in the comments received, and
  - b. record in *BCTS* or *FSP holder's* files the comments received, solutions determined, and actions taken, and
  - c. inform the commercial recreation tenure holder or known private tourism operator of the *TSM*'s or *FSP holder's* decision, and
  - d. if the affected party is not in agreement with the *TSM* or *FSP holder's* mitigation strategy, the *TSM* or *FSP holder* will initiate the *ministry dispute resolution process*, and
  - e. the *TSM* or *FSP holder* will incorporate any changes arising from the *ministry dispute* resolution process into a revised *mitigation strategy*.
- 4. The *TSM* or *FSP holder* will ensure *primary forest activities* are consistent with the *mitigation strategy* for tourism described in clause 2 and 3.

#### 5.13.2 Recreation Sites and Trails

Source of Objective: FRPA 56, 180 and 181

Interpretive forest sites, recreation sites and recreation trails that were legally designated under *FPC* have been continued under *FRPA* 56 & 180. Where objectives for these interpretive forest sites, recreation sites and recreation trails were legally established under *FPC*, the objectives have been continued under *FRPA* 181.

Applicable Area: FDU 1 & 2 and Appendix B: Recreation site & Recreation Trails Appendix H: Maps Definitions for the purpose of this Result or Strategy:

"Objective" means, within the applicable *FDU*, the legally established objective(s) for: a) Recreation Sites and Trails within the Cariboo-Chilcotin Natural Resource District and b) Recreation Sites and Trails within the Quesnel Natural Resource District.

**"Site"** means a recreation site or area legally designated under *FPC*, and continued under *FRPA* section 180, for which a legal objective is continued under *FRPA* 181 or established under *FRPA* 56. The extent of these sites is identified spatially on files held in the B.C. Geographic Data Warehouse. The list of sites and objectives is included in Appendices E and F of this *FSP*.

"Trail" means a recreation trail legally designated under FPC and continued under FRPA 180 for which a legal *objective* is established under FRPA 181 or established under FRPA 56. The location of these trails is identified spatially on files held in the B.C. Geographic Warehouse. The list of trails and objectives is included in Appendices E and F of this FSP.

#### Result and/or Strategy:

- 1. The *TSM* or *FSP holder* will, prior to *harvesting* a *cutblock* or constructing a *road* within 100 metres of a *site* or *trail* with an established *objective*:
  - a. refer the proposed *cutblock* or *road* construction to the District Recreation Officer, requesting input on the proposal as it relates to the established *site* or *trail objectives*;
    - when the District Recreation Officer responds and provides input on the *cutblock* or *road* construction proposal, the *TSM* or *FSP holder* will incorporate the input into the development of the *cutblock* and *road* construction *mitigation strategy*; and
    - ii. the *cutblock* and *road* construction *mitigation strategy* will be developed consistent with the established *objective* for the *trail* or *site*;
  - b. communicate the *mitigation strategy* to the District Recreation Officer.
- 2. The *TSM* or *FSP holder* will ensure *primary forest activities* are consistent with the *mitigation strategy* developed in clause 1 for the recreation *site* or *trail*.

#### 5.13.3 Backcountry

#### Source of Objective: CCLUP 90 Day Report

Maintenance of **backcountry** recreation opportunities in a significant portion of the areas of the region that are presently in a **backcountry** condition, principally in the Special Resource Development Zone.

Maintaining environmental and **backcountry** values through improved access management.

Maintenance of **backcountry** recreation opportunities along regionally significant rivers and trails.

Maintain the % of the CCLUP polygons in a backcountry condition.

Applicable Area: FDU 1 & 2 and Appendix B: Backcountry, Guide Outfitter & Trapline Appendix H: Maps

- 1. To maintain *backcountry* values the *TSM* or *FSP holder* will ensure *primary forest activities* conform to the *strategies* in the following *FSP* sections: 5.3 Wildlife, 5.4 Riparian, 5.12 Visual Quality and 5.13 Recreation.
- 2. Where an access management plan or sub-regional management plan addressing access management has been endorsed by an *SDM*, the *TSM* or *FSP holder* will adhere to the

requirements specified in that plan for *road* density, *road* use and *road* location when conducting or authorizing *road* construction/deactivation for a *CP*, *TSL* or *RP*.

- 3. The *TSM* or *FSP holder* will, prior to the declaration of *ADV* of a planned *cutblock* or *road* or submissions of *CPs* or *RPs*:
  - a. notify registered guide outfitters, registered trappers, known clubs or associations with overlapping tenures or interests in maintaining *backcountry* condition, and
  - b. provide these parties a minimum of 60 days or less, as approved by the applicable *SDM*, to identify any issues or concerns they may have in the vicinity of the proposed *cutblock* or *road*, and
  - c. create a mitigation strategy for Backcountry for the proposed cutblock or road.
- 4. The *TSM* or *FSP holder* will consider *cutblock* and *road* related comments received in clause 3 during the development phase of new *cutblocks* and *roads* and:
  - a. demonstrate a commitment to minimize or mitigate impacts identified in the comments received, and
  - b. record in *BCTS* or *FSP holder's* files the comments received, solutions determined, and actions taken, and
  - c. inform the registered guide outfitters, registered trappers, known clubs or associations with overlapping tenures or interests of the *TSM*'s or *FSP holder's* decision, and
  - d. if the affected party is not in agreement with the *TSM* or *FSP holder's* mitigation strategy, the *TSM* or *FSP holder* will initiate the *ministry dispute resolution process*, and
  - e. the *TSM* or *FSP holder* will incorporate any changes arising from the *ministry dispute* resolution process into a revised *mitigation strategy*.
- 5. The *TSM* or *FSP holder* will ensure *primary forest activities* are consistent with the *mitigation strategy* for *backcountry* developed in clause 3 and 4.

#### 5.13.4 Land Act Order Trails

Source of Objective: LAO Objective 30

a) For the buffered trails.....maintain 50 metre management zones on either side, with the treed area inside the management zones managed to the combined minimum basal area retention of 85 percent, except where roads cross trails.

Source of Objective: LAO Objective 30

Despite objective (a), primary forest activities that remove more than 15 percent of the basal area within the management zones are permitted for any of the following reasons: (i) Where harvesting is essential for insect control to curtail severe damage to forest values at the landscape level in a beetle management unit (BMU) classified as suppression for that insect pest; ii) Where harvesting is necessary to manage for blowdown where that helps to maintain the recreational value of the trail.

Applicable Area: FDU 1 & 2 and Appendix B: Buffered Trail Areas Appendix H: Maps

Definitions for the purpose of this Result or Strategy:

"Blowdown" means a tree or trees uprooted by the wind.

- 1. For buffered Land Act Order (*LAO*) trails shown on Cariboo-Chilcotin Land-Use Plan *LAO* map 10 Buffered Trails in SRMP Areas and referenced in Appendix H, the *TSM* or *FSP holder* will ensure *primary forest activities* maintain a 50m management zone on both sides of the trail's centre line, and:
  - a. maintain a minimum of 85% of the pre-*harvest* basal area as retention in the treed portion except where roads cross the trail, and
- 2. Despite clause 1, *harvesting* activities that remove more than 15 percent of the basal area within treed areas of the management zone is permitted for any of the following circumstances:
  - a. *harvesting* is *essential for insect control*, and all identified *infestation sites* on crown provincial forest land (excluding area-based tenures) within 500m of the buffer's infestation are addressed prior to or in conjunction with *harvest* entries into the buffer area;
  - b. *harvesting* is necessary to maintain the recreation value of the trail by recovering *blowdown* that has occurred, or to prevent blowdown from occurring after a *QRP* completes a windthrow hazard *assessment* for the portions of the 50m buffered trail within or *adjacent* to a *cutblock* or *road* location, and:
    - i. if the assessment indicates high or very high risk on > 10% of the treed portion of the 50m buffered trail, the QRP will develop recommendations to mitigate the risk consistent with the Windthrow Handbook for British Columbia Forests (1994); and
    - ii. the *TSM* or *FSP holder* will ensure the recommendations from the *assessment* are followed to the extent practicable.
  - c. *harvesting* is required within *primary* and *interface fuel breaks*, in an approved community or regional wildfire plan, where impacts to *primary old seral forest characteristics* are minimized:
    - i. reduction of fine surface debris, ladder fuels and small diameter trees in *intermediate* and *overtopped crown classes* and the integrity of the trail remains intact
  - d. *harvesting* is required to implement a management plan developed by a *QRP*, agreed to by the primary user of the trail, and endorsed by *FLNRORD*.
- 3. The *TSM* or *FSP holder* will ensure *primary forest activities* are consistent with the management plan for *LAO* trails.

# 5.13.5 Alexander MacKenzie Heritage Trail / Nuxalk-Carrier Grease Trail

Source of Objective: CCLUP 90 Day Report pg. 74

To maintain the visual quality in the viewshed surrounding the Blackwater River, the MacKenzie/Grease

trail and the Protected Area.

To implement the measures included in the MacKenzie/Grease Trail Management Plan. (aka Nuxalk – Carrier Grease Trail.)

Source of Objective: Heritage Conservation Act 4

The Province may enter into a formal agreement with a first nation with respect to the conservation and protection of heritage sites and heritage objects that represent the cultural heritage of the aboriginal people who are represented by that first nation... the agreement must identify actions which would constitute a desecration or which would detract from the heritage value of scheduled sites and objects, and different actions may be identified for different sites or objects or for different classes of sites or objects.

Applicable Area: FDU 1 and Appendix B: Alexander MacKenzie Heritage Trail Appendix H: Maps Definitions for the purpose of this Result or Strategy:

"Viewscape" applies to areas within 100m of the centerline of the Alexander Mackenzie Heritage Trail.

#### Result and/or Strategy:

- 1. To maintain Alexander MacKenzie Heritage Trail / Nuxalk-Carrier Grease Trail values the *TSM* or *FSP holder* will ensure *primary forest activities* conform to the *strategies* in the following *FSP* section(s): 5.12 Visual Quality and 5.14.3 Cultural Heritage Resources.
- 2. Within 100m of the centreline of the Alexander MacKenzie Heritage Trail /Nuxalk-Carrier Grease Trail as referenced in Appendix H Maps, the *TSM* or *FSP holder* will, prior to the declaration of *ADV*, *CP* or *RP* submission:
  - a. obtain an agreement in writing from the *SDM* responsible for the Heritage Conservation Act (*HCA*) that proposed activities are compatible with the management of the heritage resource values offered by the Alexander Mackenzie Heritage Trails as per *HCA* 4, and
  - b. ensure the *cutblock* and *road* site plans will be consistent with the general guidelines and specific constraints outlined in Section 5.1 (Access) and 5.3 (Timber) of the Alexander MacKenzie Heritage Trail Management Plan for Trail Portions on Public Lands (June 1993).
- 3. Within the *viewscape* of the Alexander Mackenzie Heritage Trail, the *TSM* or *FSP holder* will ensure:
  - a. for the aboriginal footpath, wagon road and four-wheel drive road portions of the trail, maintain a visual quality objective of preservation as defined in FSP section Visual Quality 5.12 in paragraph 1.a.i, and
  - a. for the gravel road sections of the trail, maintain a visual quality objective of partial retention as per the *result* or *strategy* specified *FSP* section Visual Quality 5.12 in paragraph 1.a.i.
- 4. The *TSM* or *FSP holder* will ensure *primary forest activities* are consistent with the management strategy for Alexander MacKenzie Heritage Trail / Nuxalk-Carrier Grease Trail.

#### 5.13.6 Wildcraft

Source of Objective: CCLUP 90 Day Report

Maintain roaded access over the portion (%) of the polygons (sub-units) in the Enhanced Resource Development Zones, the Integrated Resource Development Zones and the Special Resource Development Zones as specified within the *CCLUP*.

Applicable Area: FDU 1 & 2

# Result and/or Strategy:

- 1. To maintain wildcraft values, the *TSM* or *FSP holder* will ensure *primary forest activities* conform to the *strategies* in the following *FSP* section(s): 5.3 Wildlife, 5.4 Riparian, 5.6 Critical Fish Habitat, 5.7 Salmon Watersheds, 5.9 Fisheries Sensitive Watersheds, 5.10 Water in Community Watersheds & Licensed Waterworks, 5.11 Biodiversity, 5.12 Visual Quality, 5.13 Recreation, and 5.14 Cultural Heritage.
- 2. Where government initiates and *makes known* an access management plan or process within *FDU* 1 and/or 2, the *TSM* or *FSP holder* will ensure *primary forest activities* are consistent with the access management plan for the area.
- 3. Prior to establishing an *access control* or deactivation that eliminates vehicle access on an existing tenured *road* which has been constructed and in place for greater than 5 years, the *TSM* or *FSP holder* will notify the parties listed below specifying a *referral period* and placing an advertisement in the local newspaper(s) greater than 60 days prior to the activities occurring, or less as approved by the applicable *SDM*, or by agreement with affected parties, including:
  - a. First Nations whose traditional territory overlaps the location of the proposed *access control*; and
  - b. Stakeholders who have the potential to be impacted due to the *access control*.
- 4. The TSM or FSP holder will consider comments received in clause 3 and:
  - a. demonstrate a commitment to minimize or mitigate impacts identified in the comments received, and
  - b. record in BCTS files the comments received, solutions determined, and actions taken, and
  - c. create a *mitigation strategy* for wildcraft for the proposed *access control* that incorporates comments received, solutions determined, and actions taken, and
  - d. if an affected party(ies) is not in agreement with the TSM or FSP holder's mitigation strategy, the TSM or FSP holder will initiate the ministry dispute resolution process, and
  - e. the *TSM* or *FSP holder* will incorporate any changes arising from the *ministry dispute* resolution process into a revised *mitigation strategy*.
- 5. The *TSM* or *FSP holder* will ensure *primary forest activites* are consistent with the *mitigation strategy* for wildcraft in clause 4.

# 5.14 Cultural Heritage

# **5.14.1 Pine Mushrooms**

Source of Objective: CCLUP 90 Day Report

Maintain key pine mushroom harvesting sites in a condition that promotes mushroom growth.

Maintain key **pine mushroom** sites in a condition conductive to **pine mushroom** growth and harvest the Anahim IRMZ.

Maintain or enhance the wildcraft resource at or from its present level of use as per the Anahim Round Table Sub-Regional Plan.

Source of Objective: Anahim Round Table Sub Regional Plan

Maintain or enhance the wildcraft resource at or from its present level of use as per the Anahim Round Table Sub-Regional Plan.

Applicable Area: FDU 2 and Appendix B: Pine Mushroom Appendix H: Maps

# Result and/or Strategy:

- 1. To maintain Pine Mushroom values, the *TSM* or *FSP holder* will ensure *primary forest activities* conform to the *strategies* in the following *FSP* section(s): 5.11 Biodiversity, 5.14.2 Community Areas of Special Concern, and 5.14.3 Cultural Heritage Resources.
- 2. The *TSM* or *FSP holder* will, prior to the declaration of *ADV* or submission of a *CP* or *RP*, have a *QRP* complete an *assessment* for the proposed *cutblock* or *road* and create a pine mushroom management plan to mitigate the impacts on the pine mushroom plant community that is consistent to the extent practicable with the following information sources:
  - a. available pine mushroom spatial data (Appendix B
     \peaches.idir.bcgov\data\tcc\_root\MapTemplateLayers\Pine Mushroom
     shapes\producing1.shp), and
  - b. pine mushrooms areas identified from information sharing for cultural heritage resources with First Nations in the Anahim IRMZ, Kleena Kleene IRMZ and Charlotte Alplands SRDZ, and
  - c. field identification of areas with high suitability as pine mushroom habitat defined by:
    - i. very coarse texture soils >60% sands and less than 5% clay, mor humus which is thin (<10cm) to absent, and
    - ii. the forest is poor quality pine leading stands, greater than >65 years of age, with little understory and a high proportion of snags.
- 3. The *TSM* or *FSP holder* will ensure:
  - a. that the recommendations from the *assessment* and management plan are followed when *primary forest activities* are conducted in relation to the *cutblock* or *road*, and
  - b. that the final management plan is shared with First Nations who provided local pine mushroom area info prior to the declaration of *ADV* or submission of *CPs* or *RPs*.

# **5.14.2** Community Areas of Special Concern (CASC)

Source of Objective: CCLUP 90 Day Report

....To Manage the Upper Dean River as a quality stream fishery.....

Source of Objective: LAO objective 14

Maintain Community Areas of Special Concern (CASC) as defined by the spatial dataset, <u>Cariboo-</u>Chilcotin CASC as no-harvest areas.

# Source of Objective LAO objective 15

Despite objective 14, primary forest activities are permitted in community areas of special concern for the following reasons:

- a)Where harvesting is essential for insect control to curtail severe damage to forest values at the landscape level in a beetle management unit (BMU) classified as suppression for that insect pest,
- b) Road and fence construction where there is no other practicable location available,
- c) Within primary and interface fuel breaks, in an approved community or regional wildfire plan, where impacts to *primary old seral forest characteristics* are minimized:

i)reduction of fine surface debris, ladder fuels and small diameter trees in intermediate and overtopped crown classes and,

ii)separation of tree crowns among individual trees or clumps within the dominant and co-dominant layers sufficient to mitigate the spread of a passive crown fire, to a maximum spacing of 6 metres between crowns.

*Applicable Area:* FDU 1 & 2 and Appendix B: Community Areas of Mangement Concern Appendix H: Maps

# Result and/or Strategy:

- 1. The *TSM* or *FSP holder* will ensure Community Areas of Special Concern (CASC), as defined by the spatial dataset: Cariboo-Chilcotin CASC, are maintained as *no-harvest areas*, unless one or more of the following criteria are met:
  - a. *harvesting* is *essential for insect control*, and all identified *infestation sites* on crown provincial forest land (excluding area-based tenures) within 500m of the CASC infestation are addressed prior to or in conjunction with *harvest* entries into the CASC, or
  - b. *road* and fence construction where a *QRP* completes an analysis of options for *road* and fence locations and no other practicable option is available, or
  - c. *harvesting* is required within *primary* and *interface fuel breaks*, in an approved community or regional wildfire plan, where impacts to *primary old seral forest characteristics* are minimized:
    - i. reduction of fine surface debris, ladder fuels and small diameter trees in *intermediate* and *overtopped crown classes* and;
    - ii. separation of tree crowns among individual trees or clumps within the dominant and co-dominant layers sufficient to mitigate the spread of a passive crown fire, to a maximum spacing of 6 metres between crowns.

# **5.14.3** Cultural Heritage Resources (CHR)

# Source of Objective: FPPR 10

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

a)The focus of a traditional use by an aboriginal people that is of continuing importance to that people; and b)Not regulated under the *Heritage Conservation Act*.

# Definitions for the purpose of this Result or Strategy:

"Cultural heritage resource (CHR)" means an object, a site or the location of a traditional societal practice that is of historical, cultural or archaeological significance to British Columbia, a community or an aboriginal people, that is the focus of a traditional use by an aboriginal people that is of continuing importance to that people, and that is not regulated under the Heritage Conservation Act.

Applicable Area: FDU 1& 2

# Result and/or Strategy:

- 1. The TSM will, prior to the declaration of ADV:
  - a. refer the preliminary locations of proposed *cutblocks* and *roads* to a First Nation that asserts traditional territory over the proposals. The timelines for referring information vary by the type and size of the activity and location as it relates to the First Nation's interest area and follow any agreements made with local First Nations and the provisions outlined including timelines and scope of engagement; and
  - b. document the timelines and scope of engagement, consistent with government policy; and
  - c. ask the First Nation to comment on their *cultural heritage resources* in the area and whether the proposed *cutblock* or *road* or any other subsequent *primary forest activities* will impact these resources.
- 2. Where a *cultural heritage resource (CHR)* is *made known* or identified, as a result of clause 1, to the *TSM* during the specified *referral period*, the *TSM* will, prior to declaration of *ADV*:
  - a. review the information received with respect to any cultural heritage resources, and
  - b. evaluate the direct impact of the proposed *road* construction or *cutblock harvesting* on the *cultural heritage resource*, and
  - c. consider modifying the proposed *road* construction or *cutblock harvesting* to, as per *FPPR 10*, ensure that the *cultural heritage resource* is conserved, protected, or take actions to mitigate impacts by evaluating the following:
    - i. the relative value or importance, as discussed with the First Nation, of the *cultural heritage resource* to a traditional use by an aboriginal people; and
    - ii. the relative abundance or scarcity as discussed with the First Nation, of the *cultural heritage resource*; and
    - iii. the historical extent of the traditional use as discussed with the First Nation, of the *cultural heritage resource*; and
    - iv. the impact on the *TSL* holder's timber *harvesting* rights in conserving or protecting the *cultural heritage resource*; and
    - v. practicable options to mitigate the impact that a forest practice might have on a *cultural heritage resource*; and
  - d. communicate the outcomes and proposed accommodation in clause c. to the First Nations that provided the site-specific information; and
  - e. maintain a record on file with BCTS of both consultation and accommodation efforts.
- 3. The *TSM* will ensure that any accommodations agreed to from the First Nations consultation are followed when *primary forest activities* are conducted in relation to the *cutblock* or *road*.

- 4. The *TSM* will share the results of archaeological overview and archaeological impact *assessments* with the applicable First Nations, following Heritage Branch timelines, to provide an annual summary of completed archaeological work and to provide interim results as they become available.
- 5. The FSP holder, at a minimum of 60 days prior to the submission of a CP or road permit, will specify a referral period and share information regarding the location of the proposed cutblocks and roads with First Nations whose asserted traditional territory overlaps the area of proposed development.
- 6. Where a *CHR* is made known or identified through written correspondence to the *FSP holder* as a result of clause 5 during the specified referral period, the *FSP holder* will:
  - a. develop a *CHR mitigation strategy* with the involvement of the concerned First Nation; and
  - b. submit a summary of the strategy to the relevant District Manager prior to submissions of *CPs* and *road* permits.
- 7. The FSP holder will, upon or prior to submission of a CP or road permit, submit to government an information sharing summary documenting:
  - a. proof of information sharing to those First Nations whose asserted traditional territory overlaps the proposed development; and
  - b. correspondence resulting from information sharing.
- 8. Clauses 1, 2, 3, and 4 do not apply to FSP holders listed in appendix A

# **5.15** Grazing – Maintenance of Animal Unit Months

# Source of Objective: CCLUP 90 Day Report

Plan and manage forest development to minimize or mitigate the impacts to other values, including significant fish, wildlife, range, cultural heritage, recreation and tourism values and opportunities; and...

To maintain the current authorized level of AUM in the polygon where the current authorized level of AUM for the polygon is as listed in the CCLUP..... and to maintain the existing proportion of AUMs by range unit within the polygons....

Applicable Area: FDU 1 & 2

# Result and/or Strategy:

- 1. Where it is *made known* to the *TSM* or *FSP holder* by the district manager or a grazing tenure holder that one or more of the following conditions are present:
  - a. the designated *AUM* level as of February 15, 1995 for the *CCLUP* polygon is unsustainable or unachievable as a direct result of the *primary forest activities* conducted or authorized by the *TSM*; or
  - b. the proportion of *AUMs* by range unit within the polygon, as per the February 15, 1995 availability of *AUMs*, has changed and that *AUM* availability in one or more range units within the polygon is decreasing as a direct result of *primary forest activities*,

then the *TSM* or *FSP holder* will enter into consultation with the affected range tenure holders and modify *harvesting* and silviculture practices to maintain the February 15, 1995 *AUM* levels by polygon and the February 15, 1995 *AUM* levels by range unit.

2. The *TSM* or *FSP holder* will comply with *FSP* section 6.1 Natural Range Barriers of this *FSP* to refer proposed developments and engage in discussion with the range tenure holder.

# 6.0 Measures

# **6.1 Natural Range Barriers**

Related Provision: FPPR Sec. 18

For the purpose of section 48 [natural range barriers] of the Forest and Range Practices Act, a person who prepares a forest stewardship plan must specify measures to mitigate the effect of removing or rendering ineffective natural range barriers.

Applicable Area: FDU 1 & 2 and Appendix B: Natural Range Barriers Appendix H: Maps

# Measures:

- 1. The *TSM* or *FSP holder* will, prior to the declaration of *ADV* or submission of a planned *cutblock* or *road*:
  - a. complete a GIS check of known *natural range barriers* within 200m of any planned *cutblock* or *road*, and
  - b. notify applicable licensed range tenure holders and the District Range Officer and provide these parties a minimum of 60 days or less, as approved by the applicable *SDM* or by agreement with affected parties, to identify any issues or concerns they may have in the vicinity of the proposed forest activities with regard to the proposed development rendering ineffective or removing a *natural range barrier*.
- 2. The *TSM* or *FSP holder* will consider comments received in clause 1b. during the development phase of new *cutblocks* and *roads* and:
  - a. demonstrate a commitment to minimize or mitigate impacts identified by comments received by creating a *mitigation strategy* for the *natural range barrier*; and
  - b. record in *BCTS* or *FSP holder's* files the comment received, solutions determined, and actions taken; and
  - c. inform the licensed range tenure holder of the TSM's or FSP holder's decision, and
  - d. if the affected party is not in agreement with the *TSM* or *FSP holder's* mitigation strategy, the *TSM* or *FSP holder* will initiate the *ministry dispute resolution process*, and
  - e. the *TSM* or *FSP holder* will incorporate any changes arising from the *ministry dispute resolution process* into a revised *mitigation strategy*.
- 3. Where the licensed range tenure holder does not respond to the information sharing and the *TSM* or *FSP holder* is aware of the potential for a *natural range barrier* to be removed or rendered ineffective through *harvesting* or *road* building activities, the *TSM* or *FSP holder* will rely on the District Range Officer for direction.
- 4. The *TSM* or *FSP holder* will ensure that the *mitigation strategy* for *natural range barriers* is followed when *primary forest activities* are conducted in relation to the *cutblock* or *road*.

# **6.2 Invasive Plants**

# Related Provision: FPPR 17

For the purpose of Section 47 [invasive plants] of the *FRPA*, 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 *FPPR* Sec. 17

Applicable Area: FDU 1 & 2 and Appendix B: Invasive Plants Appendix H: Maps

# Definitions for the purpose of this Result or Strategy:

"Grass seed" means Canada Common #1 Forage Mixture or higher standard forage mixture, as defined by the Canada Seeds Act.

"Invasive Plants" means invasive plants specified in the Invasive Plants Regulation (IPR) 2.

"Overburden" means the layer of material above the target material and is where vegetation is or would be established.

#### Measures:

- 1. The *TSM* or *FSP holder* will, prior to the declaration of *ADV* or submission of a planned *cutblock* or *road*:
  - a. ensure a GIS data analysis is completed, using the BC Invasive Plant database layer, looking for overlapping known *invasive plant* species on the planned *cutblock* or *road* and on the area within 50 metres surrounding the *cutblock* or *road*. A record will be maintained on file; and
  - b. during *primary field activities* a field observation form will be used to document any previously unidentified *invasive plants* overlapping or within 25 metres of the proposed *cutblock* or *road* location; and
  - c. submit new *invasive plant* observations to the "*Report–A–Weed*" website, as per their current procedures and a record will be maintained on a file with *BCTS* or *FSP holder*.
- 2. The *TSM* will, prior to commencement of *road* construction, *road* maintenance, *harvest* and mechanical site prep activities on a *cutblock* or *road*:
  - a. provide the *TSL* or *RP* holder and contractors with reference material to identify *invasive* plants, and
  - b. advise the TSL or RP holder and contractors of the following:
    - i. submit new invasive plant observations, within the *cutblock* or *road* location, to the "*Report–A–Weed*" website, as per their current procedures, within 60 days of that new infestation being identified;
    - ii. any identified plant material or accumulations of soil which may contain *invasive* plant material (except for Bull Thistle) needs to be removed from machinery, vehicles, personnel and pets prior to moving to the *cutblock* or *road* site and to subsequent areas, to the extent practicable, and
    - iii. road grading must not spread invasive plants, and
    - iv. when excavating and transporting material for use in *road* or other construction, assess the material source for *invasive plants*, and where *invasive plants* are identified, clear the site of *overburden* before excavation, and
  - c. ensure instructions given under above clauses a and b are recorded in a pre-work conference.

- 3. The *FSP holder* will, prior to commencement of *road* construction, *road* maintenance, *harvest* and mechanical site prep activities on a *cutblock* or *road*:
  - a. will have reference material on site to identify *invasive plants*, and
  - b. submit new invasive plant observations, within the *cutblock* or *road* location, to the "*Report–A–Weed*" website, as per their current procedures, within 60 days of that new infestation being identified, and
  - c. any identified plant material or accumulations of soil which may contain *invasive plant* material (except for Bull Thistle) needs to be removed from machinery, vehicles, personnel and pets prior to moving to the *cutblock* or *road* site and to subsequent areas, to the extent practicable, and
  - d. road grading must not spread invasive plants; and
  - e. when excavating and transporting material for use in *road* or other construction, assess the material source for *invasive plants*, and where *invasive plants* are identified, clear the site of *overburden* before excavation.
- 4. The *TSM* or *FSP holder* will ensure, within 1 year of the *conclusion of harvesting*, the following will occur:
  - a. application of grass seed to those areas of contiguous exposed mineral soil greater than
     0.1 ha associated with road cut slopes, fill slopes, ditch lines and right-of-way landings;
     except for:
    - i. where grass seeding would be inconsistent with a *Wildlife Habitat Area* requirement;
    - ii. where grass seeding would be inconsistent with an ungulate winter range requirement; or
    - iii. where grass seeding would be inconsistent with other legislated requirements.
  - b. In very high, high and moderate grizzly habitat capability areas, the seed mixture will not include clover.
- 5. The *TSM* or *FSP holder* will ensure managment *measures* for invasive plants are followed when *primary forest activities* are conducted in relation to the *cutblock* or *road*.

# Appendix A. Agreement Holders

As of the date of this submission:

FDU#	TSA	Agreement Holder	Forest Act Agreement
1, 2	Williams Lake, Quesnel	Yun Ka Whu'ten Development Limited Partnership	FL A90148 & A90150
		690361 B.C. Ltd	A56805

Date: JUNE 10 2020 Signature:

Stephen James, Licence Signing Authority West Chilcotin Forest Products

# **Appendix B - Map Sources**

These are the current GIS layer links. *BCTS* commits to use the most current version as they are updated from time to time.

# **Legal Polygon Dataset:**

WHSE\_LAND\_USE\_PLANNING.RMP\_PLAN\_LEGAL\_POLY\_SVW

# **Fisheries Sensitive Watershed:**

WHSE\_WILDLIFE\_MANAGEMENT.WCP\_FISH\_SENSITIVE\_WS\_POLY Definition Query: GAZETTED\_NAME <> 'Horsefly River'

# **Moose Management Unit:**

REG\_LAND\_AND\_NATURAL\_RESOURCE.WETLAND\_CLASS\_CAR\_POLY Definition Query: SWAMP\_CLASS IN ( 'w1' , 'w3' , 'w5' )

# **Invasive Plant Site:**

WHSE\_FOREST\_VEGETATION.IAPP\_INVASIVE\_PLANT\_SITE\_POLY

# OGMA:

WHSE\_LAND\_USE\_PLANNING.RMP\_OGMA\_LEGAL\_CURRENT\_SVW

## **Landscape Units:**

WHSE\_LAND\_USE\_PLANNING.RMP\_LANDSCAPE\_UNIT\_SVW

# **Mature Birch:**

"STRGC\_LAND\_RSRCE\_PLAN\_NAME" = 'Cariboo Chilcotin Land Use Plan' AND "LEGAL\_FEAT\_OBJECTIVE" = 'Birch Areas for First Nations'

# **Critical Fish Habitat:**

"STRGC\_LAND\_RSRCE\_PLAN\_NAME" = 'Cariboo Chilcotin Land Use Plan' AND "LEGAL FEAT OBJECTIVE" = 'Critical Habitat for Fish'

# **Grassland Benchmark:**

"STRGC\_LAND\_RSRCE\_PLAN\_NAME" = 'Cariboo Chilcotin Land Use Plan' AND "LEGAL FEAT OBJECTIVE" = 'Grassland Benchmark Area'

# **High Value Wetlands for Moose:**

"STRGC\_LAND\_RSRCE\_PLAN\_NAME" = 'Cariboo Chilcotin Land Use Plan' AND "LEGAL FEAT OBJECTIVE" = 'High Value Wetlands for Moose'

# **Community Areas of Special Concern:**

"STRGC\_LAND\_RSRCE\_PLAN\_NAME" = 'Cariboo Chilcotin Land Use Plan' AND "LEGAL\_FEAT\_OBJECTIVE" = 'Communities Areas of Special Concern'

# **Scenic Areas:**

"STRGC LAND RSRCE PLAN NAME" = 'Cariboo Chilcotin Land Use Plan' AND

"LEGAL FEAT OBJECTIVE" = 'Scenic Areas'

# **Scenic Corridors:**

"STRGC\_LAND\_RSRCE\_PLAN\_NAME" = 'Cariboo Chilcotin Land Use Plan' AND "LEGAL FEAT OBJECTIVE" = 'Scenic Corridors'

# **Buffered Trail Areas:**

"STRGC\_LAND\_RSRCE\_PLAN\_NAME" = 'Cariboo Chilcotin Land Use Plan' AND "LEGAL FEAT OBJECTIVE" = 'Buffered Trail Areas'

# **Grizzly Bear Habitat:**

"STRGC\_LAND\_RSRCE\_PLAN\_NAME" = 'Cariboo Chilcotin Land Use Plan' AND "LEGAL FEAT OBJECTIVE" = 'Grizzly Bear Habitat'

# **Lake Management Classes:**

"STRGC\_LAND\_RSRCE\_PLAN\_NAME" = 'Cariboo Chilcotin Land Use Plan' AND "LEGAL\_FEAT\_OBJECTIVE" = 'Lake Management Classes'

# L3/Select L1 Lakes:

"STRGC\_LAND\_RSRCE\_PLAN\_NAME" = 'Cariboo Chilcotin Land Use Plan' AND "LEGAL FEAT OBJECTIVE" = 'L3/Select L1 Lakes'

## **Buffered Trails:**

"STRGC LAND RSRCE PLAN NAME" = 'Cariboo Chilcotin Land Use Plan' AND

# **High Elevation Viewpoints:**

"STRGC\_LAND\_RSRCE\_PLAN\_NAME" = 'Cariboo Chilcotin Land Use Plan' AND "NON\_LEGAL\_FEAT\_OBJECTIVE" = 'High Elevation Viewpoints'

#### **Non-Legal Polygon Dataset:**

WHSE\_LAND\_USE\_PLANNING.RMP\_PLAN\_NON\_LEGAL\_POLY\_SVW

# **Approved Wildlife Habitat Areas:**

WHSE\_WILDLIFE\_MANAGEMENT.WCP\_WILDLIFE\_HABITAT\_AREA\_POLY Candidate Goal 2 Areas:

"STRGC\_LAND\_RSRCE\_PLAN\_NAME" = 'Cariboo Chilcotin Land Use Plan' AND "NON LEGAL FEAT OBJECTIVE" = 'Candidate Goal 2 Protected Areas'

## **Backcountry Areas:**

"STRGC\_LAND\_RSRCE\_PLAN\_NAME" = 'Cariboo Chilcotin Land Use Plan' AND "NON LEGAL FEAT OBJECTIVE" = 'Backcountry Areas'

#### **Bull Trout:**

WHSE\_FISH.FISS\_FISH\_OBSRVTN\_PNT\_SP SPECIES\_NAME = 'Bull Trout'

## **Community Watersheds:**

WHSE\_WATER\_MANAGEMENT.BC\_COMMUNITY\_WATERSHEDS

#### **Lisensed Waterworks:**

WHSE\_WATER\_MANAGEMENT.WLS\_WATER\_LICENCED\_WRK\_LOC\_SP

# **Ungulate Winter Ranges:**

 $WHSE\_WILDLIFE\_MANAGEMENT.WCP\_UNGULATE\_WINTER\_RANGE\_SP$ 

# Cariboo Resource Development Zones (CCLUP):

WHSE\_LAND\_USE\_PLANNING.RMP\_PLAN\_NON-LEGAL\_POLY\_SVW

## **Crown Tenure Tantalis\_Tenure**

WHSE\_TANTALIS.TA\_CROWN\_TENURES\_SVW

# **Lisensed Waterworks:**

WHSE WATER MANAGEMENT.WLS WATER LICENCED WRK LOC SP

# **TCC Forest Development Unit:**

\\peaches.idir.bcgov\data\tcc\_root\MapTemplateLayers\Forest\_Development\_Units.shp

# **Conservation Data Centre (CDC) Occurrences:**

WHSE\_TERRESTRIAL\_ECOLOGY.BIOT\_OCCR\_MASKED\_SENS\_AREA\_SP WHSE\_TERRESTRIAL\_ECOLOGY.BIOT\_OCCR\_NON\_SENS\_AREA\_SVW

## **Big Horn sheep:**

REG\_LAND\_AND\_NATURAL\_RESOURCE.WLD\_SHEEP\_CORRIDORS\_CAR\_SP REG\_LAND\_AND\_NATURAL\_RESOURCE.SHEEP\_WINTER\_HABITAT\_CAR\_POLY

# **Pine Mushroom:**

\\peaches.idir.bcgov\\data\\tcc\_root\\MapTemplateLayers\\Pine Mushroom shapes\\producing1.shp GIS cut of data provided by \(FLNRORD\) staff

# **Natural Range Barriers:**

WHSE FOREST VEGETATION.RANGE NATURAL BARRIER LINE SVW

## **Salmon Watersheds:**

WHSE\_FISH.WDIC\_WATERSHED\_GROUP\_POLY
WATERSHED\_GROUP\_NAME = 'CHILKO RIVER' OR WATERSHED\_GROUP\_NAME =
'CARIBOO RIVER' OR WATERSHED\_GROUP\_NAME = 'COTTONWOOD RIVER' OR
WATERSHED\_GROUP\_NAME = 'HORSEFLY RIVER' OR WATERSHED\_GROUP\_NAME =
'TASEKO RIVER' OR WATERSHED\_GROUP\_NAME = 'ATNARKO RIVER' OR
WATERSHED\_GROUP\_NAME = 'BOWRON' OR WATERSHED\_GROUP\_NAME = 'QUESNEL
RIVER' OR WATERSHED\_GROUP\_NAME = 'NAZKO RIVER' OR WATERSHED\_GROUP\_NAME
= 'BEAVER RIVER' OR WATERSHED\_GROUP\_NAME = 'UPPER CHILCOTIN RIVER' OR
WATERSHED\_GROUP\_NAME = 'LOWER CHILCOTIN RIVER' OR
WATERSHED\_GROUP\_NAME = 'UPPER DEAN RIVER' OR WATERSHED\_GROUP\_NAME =
'LOWER DEAN RIVER' OR WATERSHED\_GROUP\_NAME = 'BLACKWATER RIVER'

# **Watershed Hydrology:**

WHSE\_FISH.WDIC\_WATERSHED\_GROUP\_POLY
WATERSHED\_GROUP\_NAME = 'CARIBOO RIVER' OR WATERSHED\_GROUP\_NAME = 'COTTONWOOD RIVER' OR WATERSHED\_GROUP\_NAME = 'HORSEFLY RIVER'

# **Recreation Sites:**

WHSE\_FOREST\_TENURE.FTEN\_RECREATION\_POLY\_SVW

# **Recreation Trails:**

WHSE\_FOREST\_TENURE.FTEN\_RECREATION\_LINE\_SVW

# **Guide Outfitter:**

WHSE\_WILDLIFE\_MANAGEMENT.WAA\_GUIDE\_OUTFITTER\_AREA\_SVW

# **Trapline:**

WHSE\_WILDLIFE\_MANAGEMENT.WAA\_TRAPLINE\_AREAS\_SP

# **Alexander MacKenzie Heritage Trail:**

WHSE\_LAND\_USE\_PLANNING.RMP\_PLAN\_NON\_LEGAL\_LINE\_SVW Definition query:

STRGC\_LAND\_RSRCE\_PLAN\_NAME = 'Cariboo Chilcotin Land Use Plan' AND NON\_LEGAL\_FEAT\_OBJECTIVE = 'All Trails' AND NON\_LEGAL\_FEAT\_ATRB\_4\_VALUE = 'Alexander Mackenzie Trail'

# **Appendix C. Seral Amalgamation Table**

# Schedule 2 BEC Unit Amalgamations Applicable to Implementation of Mature + Old Seral Targets

+ Old Seral Targets				
Horsefly SRMP Landscape Unit	Biogeoclimatic Unit Amalgamations			
Beaver Valley	a) ICHwk2 + ICHmk3			
	b) SBSdw2 + SBSdw1+SBSmh			
Black Creek	a) ESSFwk1 + ESSFwc3			
	b) SBPSmk + SBSmc1 + SBSdw2 + SBSdw1			
Cariboo Lake	a) SBSwk1 + ESSFwk1			
	b) ESSFwc3 +ESSFwcw			
East Arm	ESSFwc3 + ESSFwcw			
Eastside	ESSFwk1 + ESSFwc3 + ESSFwcw			
Horsefly	ESSFwk1 + ESSFwc3 + ESSFwcw			
Likely	a) ESSFwk1 + ESSFwc3 + ESSFwcw			
	b) ICHwk2 + ICHmk3			
Lower Caribou	a) ESSFwc3 + ESSFwk1 +ESSFwcw			
	b) ICHwk4 + ICHmk3			
	c) SBSmw + SBSwk1 + SBSmh			
McKinley	a) ESSFwc3 + ESSFwcw			
	b) SBSdw1 + ICHmk3			
McKay	ESSFwc3 + ESSFwcw			
McKusky	ESSFwk1 + ESSFwc3 + ESSFwcw			
Mitchell Lake	a) ESSFwk1 + ESSFwc3 +ESSFwcw			
	b) ICHwk2 + ICHwk4			
Moffat	a) ESSFwc3 + ESSFwk1 + ESSFwcw			
	b) SBSdw1 + SBSdw2			
Niagara	ESSFwk1 + ESSFwc3 + ESSFwcw			
Penfold	ESSFwc3 + ESSFwk1 + ESSFwcw			
Polley	a) ICHwk2 + ICHmk3			
	b) SBSmh + SBSdw1			
Westside	ESSFwc3 + ESSFwcw			
Wasko/Lynx	ESSFwc3 + ESSFwk1 + ESSFwcw			
100 Mile House SRMP Landscape Unit	Biogeoclimatic Unit Amalgamations			
108 Mile Lake	ECCEURT - CDCmc1 - CDCdu1			
	a) BGxh3(F+P) + BGxw2(F+P) + IDFxm(F+P) + IDFxw(F+P)			
Big Bar	b) ESSFxc + MSxk			
Bonaparte Lake	a) ESSFdc3 + MSxk			
boliapaite take	b) SBSdw1 + SBSmm + SBSdw2			
Bradley Creek	a) ESSFwc3 + ESSFwk1+SBSmc1			
bradicy creek	b) SBSdw1 + SBSdw2+IDFmw2(P)			
Bridge Lake	ESSFdc3 + SBSmc1 + SBSmm			
Bridge Creek	SBPSmk + SBSdw2 + IDFdk3 (P)			
Canim Lake	ICHmk3 + IDFmw2(P) + ICHmw3			
	a) ESSFxc3 + MSxk			
Chasm	a) ESSEXUS + IVISXK			

	b) IDFxw (F+P)		
Clinton	a) ESSFxc3 + MSxk3		
	b) IDFxw (F+P)		
Deadman	a) MSxk2 + SBPSmk		
	b) IDFdk3(F) + IDFxh2(F)		
	c) IDFdk3 (P) + IDFxh2(P)		
Deception Mountain	a) ESSFwcw + ESSFwc3		
	b) ICHdk + IDHmk3		
Dog Creek	(see Williams Lake SRMP)		
Forest Grove	a) SBSdw1 + IDFmw2(F+P) + ICHmk3 + SBSmm		
	b) IDFdk3(pine) + SBSdw2		
Green Lake	SBPSmk + SBSdw1 +SBSdw2		
Hendrix Lake	a) IDFmw2(F+P) + ICHdk		
	b) ESSFwc3 + ESSFwcw		
Kelly Lake	a) ESSFxc3 + MSxk3		
	b) BGxh3(F) + IDFxw(F) + IDFdk3(F)		
	c) BGxh3(P) + IDFxw(P) + IDFdk3(P)		
Loon	a) IDFxw(P) + IDFdk3(P)		
	b) IDFdk3(F) + IDFxh2(F) + IDFxw(F)		
McKinley	SBSdw1 + ICHmk3		
Meadow Lake	a) BGxh3(F+P) + BGxw2(F+P) + IDFxm(F) + IDFdk3(F)		
	b) SBPSmk + IDFdk3(P) + IDFxm(P)		
Murphy Lake	ESSFwc3 + ESSFwk1 +ESSFwcw		
Spanish	a) ICHmw3 + ICHmk3		
·	b) ESSFwc3 + ESSFwcw		
	c) IDFmw2(F+P) + ICHdk		
Williams Lake SRMP Landscape Unit	Biogeoclimatic Unit Amalgamations		
All.ali	a) DC::h2/E) + DC::::2/E) + IDE:::a/E) + IDE::l2/E)		
Alkali	a) BGxh3(F) + BGxw2(F) + IDFxm(F) + IDFdk3(F)		
Developin	b) BGxh3(P) + BGxw2(P) + IDFxm(P) + IDFdk3(P)		
Bambrick	a) MSxv + ESSFxv2		
Die Crook	b) IDFk4(F+P) + SBPSxc		
Big Creek	a) $BGxw2(F) + IDFxm(F) + IDFdk4(F) + IDFdk3(F)$		
	b) PCvvv2(D) + IDEvm(D) + IDEdk4(D) + IDEdk2(D)		
	b) BGxw2(P) + IDFxm(P) + IDFdk4(P) + IDFdk3(P)		
	c) MSxv + ESSFxv2		
Big Lake	c) MSxv + ESSFxv2 SBSmc1 + SBSmh + SBSdw1		
Big Lake Chimney	c) MSxv + ESSFxv2 SBSmc1 + SBSmh + SBSdw1 BGxw2(F+P) + IDFxm(F+P)		
Big Lake	c) MSxv + ESSFxv2 SBSmc1 + SBSmh + SBSdw1 BGxw2(F+P) + IDFxm(F+P) a) BGxh3(F) + BGxw2(F) + IDFxm(F)		
Big Lake Chimney	c) MSxv + ESSFxv2  SBSmc1 + SBSmh + SBSdw1  BGxw2(F+P) + IDFxm(F+P)  a) BGxh3(F) + BGxw2(F) + IDFxm(F)  b) BGxh3(P) + BGxw2(P) + IDFxm(P)		
Big Lake Chimney Dog Creek	c) MSxv + ESSFxv2  SBSmc1 + SBSmh + SBSdw1  BGxw2(F+P) + IDFxm(F+P)  a) BGxh3(F) + BGxw2(F) + IDFxm(F)  b) BGxh3(P) + BGxw2(P) + IDFxm(P)  c) SBPSmk + IDFdk3(P)		
Big Lake Chimney	c) MSxv + ESSFxv2  SBSmc1 + SBSmh + SBSdw1  BGxw2(F+P) + IDFxm(F+P)  a) BGxh3(F) + BGxw2(F) + IDFxm(F)  b) BGxh3(P) + BGxw2(P) + IDFxm(P)  c) SBPSmk + IDFdk3(P)  a) BGxh3(F) + BGxw2(F) + IDFxm(F)		
Big Lake Chimney Dog Creek	c) MSxv + ESSFxv2  SBSmc1 + SBSmh + SBSdw1  BGxw2(F+P) + IDFxm(F+P)  a) BGxh3(F) + BGxw2(F) + IDFxm(F)  b) BGxh3(P) + BGxw2(P) + IDFxm(P)  c) SBPSmk + IDFdk3(P)  a) BGxh3(F) + BGxw2(F) + IDFxm(F)  b) BGxh3(P) + BGxw2(P) + IDFxm(P) + IDFdk4(P)		
Big Lake Chimney Dog Creek Farwell	c) MSxv + ESSFxv2  SBSmc1 + SBSmh + SBSdw1  BGxw2(F+P) + IDFxm(F+P)  a) BGxh3(F) + BGxw2(F) + IDFxm(F)  b) BGxh3(P) + BGxw2(P) + IDFxm(P)  c) SBPSmk + IDFdk3(P)  a) BGxh3(F) + BGxw2(F) + IDFxm(F)  b) BGxh3(P) + BGxw2(P) + IDFxm(P) +IDFdk4(P)  + SBPSmk		
Big Lake Chimney Dog Creek	c) MSxv + ESSFxv2  SBSmc1 + SBSmh + SBSdw1  BGxw2(F+P) + IDFxm(F+P)  a) BGxh3(F) + BGxw2(F) + IDFxm(F)  b) BGxh3(P) + BGxw2(P) + IDFxm(P)  c) SBPSmk + IDFdk3(P)  a) BGxh3(F) + BGxw2(F) + IDFxm(F)  b) BGxh3(P) + BGxw2(P) + IDFxm(P) + IDFdk4(P)  + SBPSmk  a) BGxh3(F) + BGxw2(F) + IDFxm(F) + IDFdk3(F)		
Big Lake Chimney Dog Creek Farwell	c) MSxv + ESSFxv2  SBSmc1 + SBSmh + SBSdw1  BGxw2(F+P) + IDFxm(F+P)  a) BGxh3(F) + BGxw2(F) + IDFxm(F)  b) BGxh3(P) + BGxw2(P) + IDFxm(P)  c) SBPSmk + IDFdk3(P)  a) BGxh3(F) + BGxw2(F) + IDFxm(F)  b) BGxh3(P) + BGxw2(P) + IDFxm(P) + IDFdk4(P)  + SBPSmk  a) BGxh3(F) + BGxw2(F) + IDFxm(F) + IDFdk3(F)  b) BGxh3(P) + BGxw2(P) + IDFxm(P) + IDFdk3(P)		
Big Lake Chimney Dog Creek Farwell Gaspard	c) MSxv + ESSFxv2  SBSmc1 + SBSmh + SBSdw1  BGxw2(F+P) + IDFxm(F+P)  a) BGxh3(F) + BGxw2(F) + IDFxm(F)  b) BGxh3(P) + BGxw2(P) + IDFxm(P)  c) SBPSmk + IDFdk3(P)  a) BGxh3(F) + BGxw2(F) + IDFxm(F)  b) BGxh3(P) + BGxw2(P) + IDFxm(P) + IDFdk4(P)  + SBPSmk  a) BGxh3(F) + BGxw2(F) + IDFxm(F) + IDFdk3(F)  b) BGxh3(P) + BGxw2(P) + IDFxm(P) + IDFdk3(P)  c) MSxv + ESSFxv2		
Big Lake Chimney Dog Creek Farwell	c) MSxv + ESSFxv2  SBSmc1 + SBSmh + SBSdw1  BGxw2(F+P) + IDFxm(F+P)  a) BGxh3(F) + BGxw2(F) + IDFxm(F)  b) BGxh3(P) + BGxw2(P) + IDFxm(P)  c) SBPSmk + IDFdk3(P)  a) BGxh3(F) + BGxw2(F) + IDFxm(F)  b) BGxh3(P) + BGxw2(P) + IDFxm(P) + IDFdk4(P)  + SBPSmk  a) BGxh3(F) + BGxw2(F) + IDFxm(F) + IDFdk3(F)  b) BGxh3(P) + BGxw2(P) + IDFxm(P) + IDFdk3(P)  c) MSxv + ESSFxv2  a) IDFxm(F) + IDFdk3(F)		
Big Lake Chimney Dog Creek Farwell Gaspard	c) MSxv + ESSFxv2  SBSmc1 + SBSmh + SBSdw1  BGxw2(F+P) + IDFxm(F+P)  a) BGxh3(F) + BGxw2(F) + IDFxm(F)  b) BGxh3(P) + BGxw2(P) + IDFxm(P)  c) SBPSmk + IDFdk3(P)  a) BGxh3(F) + BGxw2(F) + IDFxm(F)  b) BGxh3(P) + BGxw2(P) + IDFxm(P) + IDFdk4(P)  + SBPSmk  a) BGxh3(F) + BGxw2(F) + IDFxm(F) + IDFdk3(F)  b) BGxh3(P) + BGxw2(P) + IDFxm(P) + IDFdk3(P)  c) MSxv + ESSFxv2		

NA - aliva	-\ IDE-IL3(E) + IDE-IL4(E) + IDE(E)
Mackin	a) IDFdk3(F) + IDFdk4(F) + IDFxm(F)
	b) IDFdk3(P) + IDFdk4(P) + IDFxm(P)
	c) SBPSdc + SBPSxc
Meldrum	a) IDFdk3(F) + IDFxm(F)
	b) IDFdk3(P) + IDFxm(P)
Riske	a) BGxh3(F) + BGxw2(F) + IDFxm(F)
	b) BGxh3(P) + BGxw2(P) + IDFxm(P)
	c) SBPSxc + IDFdk4(pine) + SBPSmk
Twan	a) IDFxm(F) + IDFdk3(F)
	b) IDFxm(P) + IDFdk3(P)
	c) SBPSdc + SBPSxc
Williams Lake	SBSdw2 + SBPSmk
South Chilcotin SRMP Landscape Unit	Biogeoclimatic Unit Amalgamations
Big Creek	See Williams Lake SRMP
Churn	a) ESSFxv2 + MSxv
	b) BGxh3(F) + BGxw2(F) + IDFxm(F) + IDFdk4(F)
	c) BGxh3(P) + BGxw2(P) + IDFxm(P) + IDFdk4(P)
Dash	SBPSxc + MSxv
Koster/Lone Cabin	a) ESSFxv2 + MSxk3
	b) BGxh3(F+P) + BGxw2(F+P) + IDFxm(F+P)
	c) IDFdk3(F) + IDFdk4(F)
	d) IDFdk3(P) + IDFdk4(P)
Upper Big Creek	SBPSxc + MSxv
Upper Churn	SBPSxc + MSxv
Chilcotin SRMP. Landscape Unit	Biogeoclimatic Unit Amalgamations
Alexis	a) IDFxm(F) + IDFdk4(F)
AICAIS	
	b) IDFxm(P) + IDFdk4(P)
Anaham	a) SBPSdc + SBPSxc
	b) IDFxm(F) + IDFdk3(F)
	c) IDFxm(P) + IDFdk3(P)
Atnarko	a) ESSFmw + ESSFxv1 + MSdc2 + MSxv
	b) IDFdw(F+P) + IDFww(F+P) + SBPSxc
Beece Creek	a) ESSFxv1 + ESSFxv2
	b) MSdv + MSxv + SBPSxc
Bidwell / Lava	ESSF xv1 + MSxv
Big Stick	a) ESSFmw + ESSFxv1
	b) MSdc2 + MSxv + SBPSxc
	c) IDFdw(F) + IDFww(F)
	d) IDFdw(P) + IDFww(P)
Brittany	a) ESSFxv1 + MSdc2 + MSxv + SBPSxc
•	b) IDFdk4(F) + IDFdw(F) + IDFxm(F)
	c) IDFdk4(P) + IDFdw(P) + IDFxm(P)
Cheshi Stikelan	ESSFxv1 + MSdc2
Chilanko	a) MSxv + SBPSxc
Chilko	b) IDFdk4(F) + IDFdk4(P)
/ DUVO	a) ESSFxv1 + MSdc2 + MSxv

	b) IDFdw(F) + IDFdw(P)		
Christenson Creek	SBPSmc + SBPSxc		
Clearwater	a) ESSFxv1 + MSxv + SBPSxc		
	b) IDFdk4(F+P) + IDFdw(F+P)		
Colwell Creek	a) MSdc2 + IDFdw(F+P)		
	b) ESSFmw + ESSFxv1 + MSxv		
Crazy Creek	a) ESSFxv1 + MSdc2		
	b) IDFdw(F) + IDFdw(P)		
Doran Creek	ESSFxv1 + MHmm2 +IDFdw(P) + MSdc2		
Edmond	ESSFmw + CWHun		
Franklyn	a) ESSFxv1 + ESSFmw		
	b) IDFdw(F+P) + CWHun		
Gunn Valley	MSdv + SBPSxc		
Haines	a) ESSFxv2 +MSxv		
	b) IDFdk4(F) + IDFxm(F)		
	c) IDFdk4(P) + IDFxm(P)		
Hickson	MHmm2 + ESSFxv1 + CWHms1		
Hotnarko	SBPSxc + IDFdw(F+P) + IDFww(F+P)		
Klinaklini	MSxv + SBPSxc + IDFdk4(F+P)		
Lord River	ESSFxv1 + MSdv		
McLinchy	ESSFxv1 + MSxv		
Middle Lake	ESSFxv1 + MSdc2 +MSxv		
Minton	a) BGxw2(F) + IDFxm(F)		
	b) BGxw2(P) + IDFxm(P)		
Nazko	SBPSdc + SBPSmk		
Nimpo	ESSFxv1 + MSxv		
Nemiah	a) ESSFxv1 + MSdc2 + MSxv		
	b) IDFdk4(F) + IDFdw(F)		
	c) IDFdk4(P) + IDFdw(P)		
Nosteuko	ESSFxv1 + MSdc2		
Nude Creek	a) MHmm2 + ESSFxv1 + ESSFmw + MSdc2		
	b) CWHds1 + CWHms1 + IDFdw(P+F)		
Nuntzi Elkin	a) ESSFxv1 + MSxv		
	b) IDFxm(F) + IDFdk4(F)		
	c) IDFxm(P) + IDFdk4(P)		
Ottarasko	ESSFxv1 +MSdc2		
Palmer / Jorgenson	a) ESSFxv1 + MSxv		
	b) SBPSxc + IDFdk4(F+P)		
Punky Moore	ESSFxv1 + MSxv		
Pyper	a) IDFxm(F) +IDFdk4(F)		
	b) IDFxm(P) +IDFdk4(P)		
Rainbow	a) ESSFxv1 + MSdc2 + MSdv		
	b) IDFdw (F+P)		
Sisters	a) IDFxm(F) + IDFdk4(F)		
	b) IDFxm(P) + IDFdk4(P)		
Siwash	IDFxm(P) + IDFdk4(P)		
	1		

Tatla / Little Eagle	ESSFxv1 + MSxv + SBPSxc
Tchaikazan	MSdv + ESSFxv1 + SBPSxc
Telegraph	a) IDFdw(F+P) + IDFww(F+P)
relegiupii	c) ESSFxv1 + MSxv
Tete Angela	ESSFxv1 + MSxv
Tiedemann	MHmm2 + CWHds1 + CWHms1
Upper Dean	a) SBSmc2 + SBSmc3 + SBPSxc
Upper Tatlayoko	a) MSdc2 + MSxv + SBPSxc
	b) IDFdk4(F) + IDFdw(F) c) IDFdk4(P) + IDFdw(P)
Maskharasah	
Westbranch	a) MSdc2 + MSxv + SBPSxc + ESSFxv1 b) IDFdk4(F) + IDFdw(F)
	c) IDFdk4(P) + IDFdw(P)
	e) ibi dicati ) · ibi diwiti)
Quesnel SRMP Landscape Unit	Biogeoclimatic Unit Amalgamations
Ahbau	SBSdw1 + SBSdw2 + SBSmh + SBSmw
Antler	ESSFwc3 + ESSFwcw
Baezaeko	SBSdw2 + SBPSdc
Baker	a) MSxv + SBPSmk
	b) SBSmh + SBSdw1 + SBSdw2
Betty Wendle	ESSFwc3 + ESSFwcw
Big Valley	ESSFwc3 + ESSFwk1 + ESSFwcw
Bowron	a) ICHwk4 + SBSwk1
China	b) ESSFwc3 + ESSFwk1 + ESSFwcw
Chine	a) MSxv + SBPSdc b) SBSmc2 + SBPSmc
Clisbako	SBPSdc + SBPSmk
Cunningham	ESSFwc3 + ESSFwcw
Dragon	a) IDFxm(F+P) + IDFdk3(F+P)
Eliguk	a) ESSFxv1 + MSxv
<b>0</b> -	b) SBSmc2+ SBSmc3 + SBPSmc
Euchiniko	SBSmc2 + SBSdw2 + SBSdk
Gerimi	SBSwk1 + SBSmw
Indianpoint	a) ESSFwc3 + ESSFwk1 + ESSFwcw
	b) ICHwk4 _ SBSwk1
Jack of Clubs	ESSFwc3 + ESSFwcw
Kluskus	a) ESSFxv1 + MSxv
	b) SBPSdc + SBPSmc
Lightning	a) ESSFwc3 + ESSFwk1 + ESSFwcw
Little Piver	b) SBSmw + SBSwk1
Little River Marmot	ESSFwc3 + ESSFwcw ESSFmv1 + SBSmc2 + SBSdw2 + SBPSdc
	ESSFmV1 + SBSmc2 + SBSdw2 + SBPSdc ESSFwc3 + ESSFwcw
Matthew	a) SBPSmk + SBSdw1 + SBSdw2
Narcosli	a) SBPSMK + SBSdW1 + SBSdW2
Pan	SBPSmc + SBSmc2
Pantage	a) ESSFmv1 + SBSmc2
i antage	a) LOOTHIVE TODOTHICE

	b) SBSdw1 + SBSdw2
Pelican	ESSFmv1 + SBSmc2 + SBSmc3 +SBSmw
Ramsey	SBPSdc + SBPSmk + SBSmc2 + IDFdk3(F+P)
Sandy	ESSFwc3 + ESSFwk1 + ESSFwcw
Snaking	ESSFmv1 + SBSmc2
Swift	ESSFwc3 + ESSFwcw
Toil	SBPSmc + MSxv
Twan	See Williams Lake SRMP
Umiti	a) ESSFwc3 + ESSFwc1
	b) SBSmh + SBSdw1
Victoria	ESSFwc3 + ESSFwk1 + ESSFwcw
Wentworth	SBSmc2 + SBPSmk
Whittier	a) SBSmh + SBSdw1
	b) SBSmc2 + SBPSmk + SBSdw2
Willow	ESSFwc3 + ESSFwk1

# **Appendix D- Wildlife Tree Retention Targets**

Forest Developemnt Unit 1 (Quesnel TSA & Cascadia TSA)

Landscape	Biogeoclimatic	WTR	Landscape	Biogeoclimatic	WTR Target
Unit QW	Unit	Target (%	Unit	Unit	(% gross
		gross area)			area)
Abhau	SBS dw 1 na	6	Coglistiko	SBPSdc_na	6
Abhau	SBS dw 2_na	5	Coglistiko	SBPSmc_na	6
Abhau	SBS mh_na	3	Coglistiko	SBS mc 2_na	7
Abhau	SBS mw_na	6	Cunningham	ESSFwc 3_na	5
Antler	ESSFwc 3 na	1	Cunningham	ESSFwk 1 na	7
Antler	ESSFwcw_na	1	Cunningham	ICH wk 4_na	7
Antler	ESSFwk 1_na	8	Downton	ESSFxv 1_na	0
Antler	SBS wk 1 na	9	Downton	MS xv_na	0
Baezaeko	MS xv_na	7	Dragon	IDF dk 3_FirGroup	8
Dueduene	1,120 11, _1,14	•	2148011	IDF dk	
Baezaeko	SBPSdc_na	8	Dragon	3_PineGroup	8
Baezaeko	SBPSmk_na	8	Dragon	IDF xm_FirGroup	8
Baezaeko	SBPSmk_na	8	Dragon	IDF xm_PineGroup	8
Baezaeko	SBS dw 2_na	8	Dragon	SBS dw 1 na	8
Baezaeko	SBS mc 2_na	8	Dragon	SBS dw 2_na	8
Baker	MS xv_na	8	Dragon	SBS mc 1_na	8
Baker	SBPSdc_na	8	Dragon	SBS mh_na	8
Baker	SBPSmk_na	8	Eliguk	ESSFxv 1_na	0
Baker	SBS dw 1 na	6	Eliguk	MS xv_na	4
Baker	SBS dw 2_na	8	Eliguk	SBPSmc_na	6
Baker	SBS mc 2_na	7	Eliguk	SBS mc 2_na	7
Baker	SBS mh_na	8	Eliguk	SBS mc 3_na	7
Betty Wendle	ESSFwc 3_na	0	Euchiniko	SBPSdc_na	6
Betty Wendle	ESSFwcp_na	0	Euchiniko	SBPSmk_na	6
Betty Wendle	ESSFwcw_na	0	Euchiniko	SBSdk	6
Betty Wendle	ESSFwk 1_na	0	Euchiniko	SBSdw2	6
Betty Wendle	ICH wk 4_na	0	Euchiniko	SBS mc 2_na	6
Betty Wendle	SBS wk 1 na	0	Euchiniko	SBS mc 3_na	7
Big Valley	ESSFwc 3_na	7	Gerimi	SBS mh_na	7
Big Valley	ESSFwk 1_na	8	Gerimi	SBS mw_na	7
Big Valley	SBS wk 1_na	9	Gerimi	SBS wk 1_na	6
Bowron	ESSFwc 3_na	3	Indianpoint	ESSFwc 3_na	1
Bowron	ESSFwk 1_na	6	Indianpoint	ESSFwk 1_na	6
Bowron	ICH wk 4_na	3	Indianpoint	ICH wk 4_na	6
Bowron	SBS wk 1_na	4	Indianpoint	SBS wk 1_na	6
Chine	MS xv_na	7	Jack of Clubs	ESSFwc 3_na	5
Chine	SBPSdc_na	5	Jack of Clubs	ESSFwk 1_na	6
Chine	SBPSmc_na	5	Jack of Clubs	SBS wk 1_na	7
Chine	SBS mc 2_na	7	Kluskus	ESSFxv 1_na	4
Clisbako	MS xv_na	7	Kluskus	MS xv_na	4
Clisbako	SBPSdc_na	7	Kluskus	SBPSdc_na	6
Clisbako	SBPSmk_na	8	Kluskus	SBPSmc_na	6

Landscape Unit QW	Biogeoclimatic Unit	WTR Target (% gross area)	Landscape Unit	Biogeoclimatic Unit	WTR Target (% gross area)
Clisbako	SBPSxc_na	8	Lightning	ESSFwc 3_na	6
Coglistiko	MS xv_na	6	Lightning	ESSFwk 1_na	9
Lightning	SBS mw_na	8	Snaking	ESSFmv 1_na	9
Lightning	SBS wk 1_na	9	Snaking	SBPSdc_na	8
Marmot	ESSFmv 1_na	9	Snaking	SBPSmk_na	8
Marmot	MS xv_na	7	Snaking	SBS mc 2_na	8
Marmot	SBPSdc_na	8	Swift	ESSFwc 3_na	3
Marmot	SBPSmk_na	8	Swift	ESSFwk 1_na	8
Marmot	SBS dw 2_na	8	Swift	SBS wk 1_na	9
Marmot	SBS mc 2_na	7	Tibbles	MS xv_na	7
Matthew	ESSFwc 3_na	4	Tibbles	SBPSdc_na	8
Matthew	ESSFwk 1 na	8	Tibbles	SBPSmk_na	8
Matthew	ICH wk 4_na	10	Tibbles	SBS mc 2_na	8
Narcosli	IDF xm_FirGroup IDF	9	Toil	MS xv_na	2
Narcosli	xm_PineGroup	8	Toil	SBPSmk_na	6
Narcosli	SBPSmk_na	8	Twan	IDF dk 3_FirGroup	7
				IDF dk	
Narcosli	SBS dw 1_na	10	Twan	3_PineGroup	8
Narcosli	SBS dw 2_na	8	Twan	IDF xm_FirGroup	7
Narcosli	SBS mc 2_na	8	Twan	IDF xm_PineGroup	6
Narcosli	SBS mh_na	7	Twan	SBPSdc_na	8
Pan	ESSFxv 1_na	0	Twan	SBPSxc_na	8
Pan	MS xv_na	4	Twan	SBS dw 2_na	8
Pan	SBPSmc_na	6	Umiti	ESSFwc 3_na	4
Pan	SBS mc 2_na	7	Umiti	ESSFwk 1_na	10
Pantage	ESSFmv 1_na	8	Umiti	SBS dw 1_na	10
Pantage	SBPSdc_na	8	Umiti	SBS mh_na	10
Pantage	SBPSmk_na	8	Umiti	SBS mw_na	10
Pantage	SBS dw 1_na	8	Umiti	SBS wk 1_na	10
Pantage	SBS dw 2_na	8	Victoria	ESSFwc 3_na	5
Pantage	SBS mc 2_na	8	Victoria	ESSFwk 1_na	6
Pelican	ESSFmv 1_na	7	Victoria	SBS mw_na	7
Pelican	SBPSdc_na	7	Victoria	SBS wk 1_na	8
Pelican	SBPSmk_na	7	Wentworth	MS xv_na	8
Pelican	SBS dw 2_na	7	Wentworth	SBPSdc_na	9
Pelican	SBS mc 2_na	7	Wentworth	SBPSmk_na	9
Ramsey	IDF dk 3_FirGroup	10	Wentworth	SBS mc 2_na	9
	IDF dk				
Ramsey	3_PineGroup	10	Whittier	SBPSmk_na	8
Ramsey	MS xv_na	8	Whittier	SBS dw 1_na	8
Ramsey	SBPSdc_na	9	Whittier	SBS dw 2_na	8
Ramsey	SBPSmk_na	9	Whittier	SBS mc 2_na	8
Ramsey	SBS dw 2_na	9	Whittier	SBS mh_na	8

Landscape Unit QW	Biogeoclimatic Unit	WTR Target (% gross area)	Landscape Unit	Biogeoclimatic Unit	WTR Target (% gross area)
Ramsey	SBS mc 2_na	8	Willow	ESSFwc 3_na	5
Sandy	ESSFwc 3_na	0	Willow	ESSFwk 1_na	8
Sandy	ESSFwk 1_na	0	Willow	SBS wk 1_na	9
Sandy	ICH wk 4_na	0			

# Forest Development Unit 2 (Willaims Lake TSA)

Landscape Unit	Biogeoclimatic Unit	WTR Target (% gross area)	Landscape Unit	Biogeoclimatic Unit	WTR Target (% gross area)
Alexis	IDF dk 4_FirGroup	8	Beece Creek	ESSFxv 1_na	6
Alexis	IDF dk 4_PineGroup	8	Beece Creek	ESSFxv 2_na	5
Alexis	IDF xm_FirGroup	7	Beece Creek	MS dv_na	5
Alexis	IDF xm_PineGroup	7	Beece Creek	MS xv_na	6
Alexis	SBPSxc_na	9	Beece Creek	SBPSxc_na	5
Alkali	BG xh 3_FirGroup	8	Beeftrail	ESSFxv 1_na	7
Alkali	BG xh 3_PineGroup	7	Beeftrail	MS xv_na	7
Alkali	BG xw 2_FirGroup	5	Beeftrail	SBPSmc_na	6
Alkali	BG xw 2_PineGroup	7	Beeftrail	SBPSxc_na	6
Alkali	IDF dk 3_FirGroup	9	Bidwell/Lava	ESSFxv 1_na	7
Alkali	IDF dk 3_PineGroup	9	Bidwell/Lava	IDF dk 4_FirGroup	2
Alkali	IDF xm_FirGroup	6	Bidwell/Lava	IDF dk 4_PineGroup	3
Alkali	IDF xm_PineGroup	9	Bidwell/Lava	IDF dw_FirGroup	6
Alplands	ESSFxv 1_na	0	Bidwell/Lava	IDF dw_PineGroup	2
Alplands	MS xv_na	1	Bidwell/Lava	MS xv_na	6
Alplands	SBPSxc_na	1	Bidwell/Lava	SBPSxc_na	7
Anaham	IDF dk 3_FirGroup	8	Big Creek	BG xw 2_FirGroup	7
Anaham	IDF dk 3_PineGroup	8	Big Creek	BG xw 2_PineGroup	7
Anaham	IDF dk 4_FirGroup	8	Big Creek	ESSFxv 2_na	8
Anaham	IDF dk 4_PineGroup	8	Big Creek	IDF dk 3_FirGroup	7
Anaham	IDF xm_FirGroup	6	Big Creek	IDF dk 3_PineGroup	8
Anaham	IDF xm_PineGroup	8	Big Creek	IDF dk 4_FirGroup	7
Anaham	SBPSdc_na	5	Big Creek	IDF dk 4_PineGroup	8
Anaham	SBPSxc_na	9	Big Creek	IDF xm_FirGroup	6
Atnarko	ESSFxv 1_na	8	Big Creek	IDF xm_PineGroup	8
Atnarko	IDF dw_FirGroup	0	Big Creek	MS xv_na	8
Atnarko	IDF dw_PineGroup	0	Big Creek	SBPSxc_na	8
Atnarko	IDF ww_FirGroup	0	Big Lake	SBS dw 1_na	8
Atnarko	IDF ww_PineGroup	0	Big Lake	SBS dw 2_na	8
Atnarko	MS dc 2_na	4	Big Lake	SBS mc 1_na	7
Atnarko	MS xv_na	6	Big Lake	SBS mh_na	6

Landscape Unit	Biogeoclimatic Unit	WTR Target (% gross area)	Landscape Unit	Biogeoclimatic Unit	WTR Target (% gross area)
Atnarko	SBPSxc_na	6	Big Stick	ESSFmw_na	6
Bambrick	ESSFxv 2_na	7	Big Stick	ESSFxv 1_na	6
Bambrick	IDF dk 4_FirGroup	8	Big Stick	IDF dw_FirGroup	5
Bambrick	IDF dk 4_PineGroup	8	Big Stick	IDF dw_PineGroup	6
Bambrick	MS xv_na	7	Big Stick	IDF ww_FirGroup	6
Bambrick	SBPSxc_na	7	Big Stick	IDF ww_PineGroup	7
Beaver Valley	ICH mk 3_na	8	Big Stick	MS dc 2_na	6
Beaver Valley	ICH wk 2_na	7	Big Stick	MS xv_na	6
Beaver Valley	SBPSmk_na	8	Big Stick	SBPSxc_na	7
Beaver Valley	SBS dw 1_na	8	Black Creek	ESSFwc 3_na	7
Beaver Valley	SBS dw 2_na	8	Black Creek	ESSFwk 1_na	8
Beaver Valley	SBS mh_na	7	Black Creek	ICH mk 3_na	8
Black Creek	SBPSmk_na	9	Churn	BG xw 2_FirGroup	1
Black Creek	SBS dw 1_na	8	Churn	BG xw 2_PineGroup	0
Black Creek	SBS dw 2_na	8	Churn	ESSFxv 2_na	8
Black Creek	SBS mc 1_na	8	Churn	IDF dk 4_FirGroup	2
Brittany	ESSFxv 1_na	6	Churn	IDF dk 4_PineGroup	5
Brittany	IDF dk 4_FirGroup	4	Churn	IDF xm_FirGroup	0
Brittany	IDF dk 4_PineGroup	6	Churn	IDF xm_PineGroup	0
Brittany	IDF dw_FirGroup	0	Churn	MS xv_na	7
Brittany	IDF dw_PineGroup	0	Churn	SBPSxc_na	6
Brittany	IDF xm_FirGroup	4	Clearwater	ESSFxv 1_na	0
Brittany	IDF xm_PineGroup	6	Clearwater	IDF dk 4_FirGroup	5
Brittany	MS dc 2_na	0	Clearwater	IDF dk 4_PineGroup	6
Brittany	MS xv_na	6	Clearwater	IDF dw_FirGroup	7
Brittany	SBPSxc_na	6	Clearwater	IDF dw_PineGroup	7
Cariboo Lake	ESSFwc 3_na	10	Clearwater	MS xv_na	7
Cariboo Lake	ESSFwk 1_na	10	Clearwater	SBPSxc_na	7
Cariboo Lake	ICH wk 4_na	11	Clisbako	MS xv_na	7
Cariboo Lake	SBS wk 1_na	11	Clisbako	SBPSdc_na	7
Cheshi Stikelan	ESSFxv 1_na	3	Clisbako	SBPSmk_na	8
Cheshi Stikelan	IDF dw_FirGroup	3	Clisbako	SBPSxc_na	8
Cheshi Stikelan	IDF dw_PineGroup	6	Clusko	MS xv_na	7
Cheshi Stikelan	MS dc 2_na	7	Clusko	SBPSxc_na	8
Chilanko	IDF dk 4_FirGroup	5	Colwell	ESSFmw_na	7
Chilanko	IDF dk 4_PineGroup	6	Colwell	ESSFxv 1_na	6
Chilanko	MS xv_na	6	Colwell	IDF dw_FirGroup	5
Chilanko	SBPSxc_na	7	Colwell	IDF dw_PineGroup	6
Chilko	ESSFxv 1_na	0	Colwell	MS dc 2_na	6
Chilko	IDF dw_FirGroup	0	Colwell	MS xv_na	6

Landscape Unit			Landscape Unit	Biogeoclimatic Unit	WTR Target (% gross area)
Chilko	IDF dw_PineGroup	0	Corkscrew	ESSFxv 1_na	0
Chilko	MS dc 2_na	0	Corkscrew	MS xv_na	5
Chilko	MS xv_na	0	Corkscrew	SBPSxc_na	6
Chimney	BG xw 2_FirGroup	3	Crazy Creek	CWH ms 1_na	0
Chimney	BG xw 2_PineGroup	2	Crazy Creek	ESSFxv 1_na	0
Chimney	IDF dk 3_FirGroup	8	Crazy Creek	IDF dw_FirGroup	4
Chimney	IDF dk 3_PineGroup	8	Crazy Creek	IDF dw_PineGroup	2
Chimney	IDF xm_FirGroup	9	Crazy Creek	MS dc 2_na	6
Chimney	IDF xm_PineGroup	10	Dash	ESSFxv 2_na	7
Christenson Creek	hristenson Creek ESSFxv 1_na		Dash	MS xv_na	7
Christenson Creek	hristenson Creek MS xv_na		Dash	SBPSxc_na	7
Christenson Creek			Dog Creek	BG xh 3_FirGroup	10
Christenson Creek			Dog Creek	BG xw 2_FirGroup	10
Dog Creek	log Creek IDF dk 3_FirGroup		Gaspard	IDF dk 3_FirGroup	7
Dog Creek	IDF dk 3_PineGroup	10	Gaspard	IDF dk 3_PineGroup	9
Dog Creek	Dog Creek IDF xm_FirGroup		Gaspard	IDF dk 4_FirGroup	7
Dog Creek	Dog Creek IDF xm_PineGroup		Gaspard	IDF dk 4_PineGroup	9
Dog Creek	-		Gaspard	IDF xm_FirGroup	7
Doran Creek			Gaspard	IDF xm_PineGroup	9
Doran Creek			Gaspard	MS xv_na	9
Doran Creek	ESSFxv 1_na	0	Gaspard	SBPSxc_na	9
Doran Creek	IDF dw_FirGroup	0	Gunn Valley	ESSFxv 1_na	0
Doran Creek	IDF dw_PineGroup	0	Gunn Valley	MS dv_na	3
Doran Creek	MH mm 2_na	0	Gunn Valley	SBPSxc_na	3
Downton	ESSFxv 1_na	0	Haines	ESSFxv 2_na	8
Downton	MS xv_na	0	Haines	IDF dk 4_FirGroup	7
East Arm	ESSFwc 3_na	0	Haines	IDF dk 4_PineGroup	8
East Arm	ESSFwk 1_na	4	Haines	IDF xm_FirGroup	7
East Arm	ICH wk 2_na	7	Haines	IDF xm_PineGroup	7
Eastside	ESSFwc 3_na	6	Haines	MS xv_na	8
Eastside	ESSFwk 1_na	6	Haines	SBPSxc_na	8
Eastside	ICH wk 2_na	7	Hawks Creek	IDF dk 3_FirGroup	9
Edmond	CWH un_na	0	Hawks Creek	IDF dk 3_PineGroup	10
Edmond	ESSFmw_na	0	Hawks Creek	IDF xm_FirGroup	8
Edmond	ESSFxv 1_na	0	Hawks Creek	IDF xm_PineGroup	7
Edmond	IDF dw_PineGroup	0	Hawks Creek	SBPSmk_na	10
Edmond	MS dc 2_na	0	Hawks Creek	SBS dw 1_na	10
Farwell	BG xh 3_FirGroup	8	Hawks Creek	SBS dw 2_na	10
Farwell	BG xh 3_PineGroup	2	Hawks Creek	SBS mc 1_na	11
Farwell	BG xw 2_FirGroup	7	Hickson	CWH ms 1_na	0

Landscape Unit	Biogeoclimatic Unit	WTR Target (% gross area)	Landscape Unit	Biogeoclimatic Unit	WTR Target (% gross area)
Farwell	BG xw 2_PineGroup	10	Hickson	ESSFxv 1_na	0
Farwell	IDF dk 3_FirGroup	8	Hickson	MH mm 2_na	0
Farwell	IDF dk 3_PineGroup	9	Holtry	ESSFxv 1_na	8
Farwell	IDF dk 4_FirGroup	8	Holtry	MS xv_na	8
Farwell	IDF dk 4_PineGroup	9	Holtry	SBPSxc_na	7
Farwell	rwell IDF xm_FirGroup		Horsefly	ESSFwc 3_na	7
Farwell	arwell IDF xm_PineGroup		Horsefly	ESSFwk 1_na	7
Farwell	urwell SBPSmk_na		Horsefly	ICH mk 3_na	8
Franklyn	ranklyn CWH un_na		Horsefly	ICH wk 2_na	8
Franklyn	ESSFmw_na	0	Horsefly	SBS dw 1_na	8
Franklyn	ESSFxv 1_na	0	Hotnarko	ESSFxv 1_na	7
Franklyn	IDF dw_FirGroup	0	Hotnarko	IDF dw_FirGroup	5
Franklyn	IDF dw_PineGroup	0	Hotnarko	IDF dw_PineGroup	6
Gaspard	BG xw 2_FirGroup	9	Hotnarko	IDF ww_FirGroup	0
Gaspard	BG xw 2_PineGroup	10	Hotnarko	IDF ww_PineGroup	0
Hotnarko	SBPSxc_na	6	Mackin	SBPSxc_na	9
Klinaklini	ESSFxv 1_na	7	McKay	ESSFwc 3_na	9
Klinaklini			McKay	ESSFwk 1_na	9
Klinaklini	IDF dk 4_PineGroup	7	McKay	ICH wk 2_na	9
Klinaklini	MS xv_na	6	McKinley	ESSFwc 3_na	7
Klinaklini	SBPSxc_na	7	McKinley	ESSFwk 1_na	8
Koster/Lone Cabin	BG xh 3_FirGroup	0	McKinley	ICH mk 3_na	9
Koster/Lone Cabin	BG xh 3_PineGroup	0	McKinley	ICH wk 2_na	8
Koster/Lone Cabin	BG xw 2_FirGroup	0	McKinley	SBS dw 1_na	8
Koster/Lone Cabin	BG xw 2_PineGroup	0	McKusky	ESSFwc 3_na	3
Koster/Lone Cabin	ESSFxv 2_na	7	McKusky	ESSFwk 1_na	7
Koster/Lone Cabin	IDF dk 3_FirGroup	0	McKusky	ICH wk 2_na	8
Koster/Lone Cabin	IDF dk 3_PineGroup	0	McLinchy	ESSFxv 1_na	0
Koster/Lone Cabin	IDF dk 4_FirGroup	6	McLinchy	MS xv_na	7
Koster/Lone Cabin	IDF dk 4_PineGroup	7	McLinchy	SBPSxc_na	7
Koster/Lone Cabin	IDF xm_FirGroup	0	Meldrum	IDF dk 3_FirGroup	15
Koster/Lone Cabin	IDF xm_PineGroup	1	Meldrum	IDF dk 3_PineGroup	15
Koster/Lone Cabin	MS xk3_na	6	Meldrum	IDF xm_FirGroup	14
Koster/Lone Cabin	MS xv_na	5	Meldrum	IDF xm_PineGroup	17
Likely	ESSFwc 3_na	3	Middle Lake	ESSFxv 1_na	0
Likely	ESSFwk 1_na	9	Middle Lake	IDF dw_FirGroup	7
Likely	ICH mk 3_na	10	Middle Lake	IDF dw_PineGroup	7
Likely	ICH wk 2_na	9	Middle Lake	MS dc 2_na	5
Little River	ESSFwc 3_na	1	Middle Lake	MS xv_na	5
Little River	ESSFwk 1_na	6	Minton	BG xw 2_FirGroup	7

Landscape Unit	Biogeoclimatic Unit	WTR Target (% gross area)	Landscape Unit	Biogeoclimatic Unit	WTR Target (% gross area)
Little River	ICH wk 4_na	7	Minton	BG xw 2_PineGroup	7
Lord River	ESSFxv 1_na	1	Minton	IDF dk 4_FirGroup	7
Lord River	MS dv_na	5	Minton	IDF dk 4_PineGroup	8
Lower Cariboo	ESSFwc 3_na	4	Minton	IDF xm_FirGroup	7
Lower Cariboo	wer Cariboo ESSFwk 1_na		Minton	IDF xm_PineGroup	8
Lower Cariboo	ower Cariboo ICH mk 3_na		Minton	SBPSxc_na	9
Lower Cariboo	ower Cariboo ICH wk 2_na		Mitchell Lake	ESSFwc 3_na	0
Lower Cariboo	ower Cariboo ICH wk 4_na		Mitchell Lake	ESSFwk 1_na	2
Lower Cariboo	.ower Cariboo SBS mh_na		Mitchell Lake	ICH wk 2_na	2
Lower Cariboo	_		Mitchell Lake	ICH wk 4_na	10
Lower Cariboo	SBS wk 1_na	11	Moffat	ESSFwc 3_na	7
Mackin	IDF dk 3_FirGroup	8	Moffat	ESSFwk 1_na	7
Mackin	IDF dk 3_PineGroup	9	Moffat	SBPSmk_na	8
Mackin	IDF dk 4_FirGroup	10	Moffat	SBS dw 1_na	9
Mackin	IDF dk 4_PineGroup	9	Moffat	SBS dw 2_na	8
Mackin	*		Moffat	SBS mc 1_na	8
Mackin	-		Nadila	ESSFxv 2_na	0
Mackin			Nadila	MS xv_na	0
Nadila			Palmer/Jorgenson	ESSFxv 1_na	6
Nazko	IDF dk 4_FirGroup	6	Palmer/Jorgenson	IDF dk 4_FirGroup	6
Nazko	IDF dk 4_PineGroup	6	Palmer/Jorgenson	IDF dk 4_PineGroup	7
Nazko	MS xv_na	8	Palmer/Jorgenson	MS xv_na	6
Nazko	SBPSdc_na	7	Palmer/Jorgenson	SBPSxc_na	6
Nazko	SBPSmk_na	9	Penfold	ESSFwc 3_na	5
Nazko	SBPSxc_na	8	Penfold	ESSFwk 1_na	5
Nemiah	ESSFxv 1_na	6	Penfold	ICH wk 2_na	6
Nemiah	IDF dk 4_FirGroup	7	Polley	ICH mk 3_na	9
Nemiah	IDF dk 4_PineGroup	6	Polley	ICH wk 2_na	8
Nemiah	IDF dw_FirGroup	0	Polley	SBS dw 1_na	9
Nemiah	IDF dw_PineGroup	4	Polley	SBS mh_na	9
Nemiah	MS dc 2_na	5	Punky Moore	ESSFxv 1_na	1
Nemiah	MS xv_na	6	Punky Moore	MS xv_na	4
Nemiah	SBPSxc_na	7	Punky Moore	SBPSxc_na	4
Niagara	ESSFwc 3_na	0	Puntzi	IDF dk 4_FirGroup	6
Niagara	ESSFwk 1_na	0	Puntzi	IDF dk 4_PineGroup	7
Niagara	ICH wk 2_na	0	Puntzi	MS xv_na	6
Nimpo	ESSFxv 1_na	7	Puntzi	SBPSxc_na	6
Nimpo	MS xv_na	7	Pyper	IDF dk 4_FirGroup	6
Nimpo	SBPSxc_na	7	Pyper	IDF dk 4_PineGroup	7
Nostetuko	ESSFxv 1_na	7	Pyper	IDF xm_FirGroup	6

Landscape Unit	Biogeoclimatic Unit	WTR Target (% gross area)	Landscape Unit	Biogeoclimatic Unit	WTR Target (% gross area)
Nostetuko	IDF dw_FirGroup	7	Pyper	IDF xm_PineGroup	6
Nostetuko	IDF dw_PineGroup	7	Pyper	SBPSxc_na	7
Nostetuko	MS dc 2_na	7	Rainbow	ESSFxv 1_na	0
Nude Creek	CWH ds 1_na	0	Rainbow	IDF dw_FirGroup	0
Nude Creek	ESSFmw_na	0	Rainbow	IDF dw_PineGroup	0
Nude Creek	ESSFxv 1_na	0	Rainbow	MS dc 2_na	0
Nude Creek	ide Creek IDF dw_FirGroup		Rainbow	MS dv_na	0
Nude Creek	IDF dw_PineGroup	0	Riske	BG xh 3_FirGroup	2
Nude Creek	MH mm 2_na	0	Riske	BG xh 3_PineGroup	9
Nude Creek	MS dc 2_na	0	Riske	BG xw 2_FirGroup	10
Nuntzi Elkin	ESSFxv 1_na	6	Riske	BG xw 2_PineGroup	9
Nuntzi Elkin	IDF dk 4_FirGroup	5	Riske	IDF dk 3_FirGroup	10
Nuntzi Elkin	IDF dk 4_PineGroup	4	Riske	IDF dk 3_PineGroup	11
Nuntzi Elkin	IDF xm_FirGroup	5	Riske	IDF xm_FirGroup	10
Nuntzi Elkin	IDF xm_PineGroup	4	Riske	IDF xm_PineGroup	12
Nuntzi Elkin	MS xv_na	6	Riske	SBPSmk_na	11
Nuntzi Elkin	SBPSxc_na	2	Riske	SBPSxc_na	12
Ottarasko	ESSFxv 1_na	0	Sisters	IDF dk 4_FirGroup	8
Ottarasko	IDF dw_FirGroup	0	Sisters	IDF dk 4_PineGroup	9
Ottarasko	IDF dw_PineGroup	0	Sisters	IDF xm_FirGroup	8
Ottarasko	MS dc 2_na	0	Sisters	IDF xm_PineGroup	4
Sisters	SBPSxc_na	9	Twan	SBS dw 2_na	8
Siwash	IDF dk 4_FirGroup	8	Upper Big Creek	ESSFxv 2_na	1
Siwash	IDF dk 4_PineGroup	10	Upper Big Creek	MS xv_na	4
Siwash	IDF xm_FirGroup	9	Upper Big Creek	SBPSxc_na	1
Siwash	IDF xm_PineGroup	8	Upper Churn	ESSFxv 2_na	6
Siwash	SBPSxc_na	10	Upper Churn	MS xv_na	6
Taseko	ESSFxv 1_na	6	Upper Churn	SBPSxc_na	7
Taseko	MS dv_na	5	Upper Dean	ESSFmc_na	0
Tatla/Little Eagle	ESSFxv 1 na	7	Upper Dean	ESSFxv 1_na	0
Tatla/Little Eagle	IDF dk 4_FirGroup	5	Upper Dean	MS xv_na	5
Tatla/Little Eagle	IDF dk 4_PineGroup	6	Upper Dean	SBPSmc_na	6
Tatla/Little Eagle	MS xv_na	6	Upper Dean	SBPSxc_na	6
Tatla/Little Eagle	SBPSxc_na	7	Upper Dean	SBS mc 2_na	0
Tautri	SBPSdc_na	8	Upper Dean	SBS mc 3_na	6
Tautri	SBPSmk_na	8	Upper Tatlayoko	ESSFxv 1_na	4
Tautri	SBPSxc_na	8	Upper Tatlayoko	IDF dk 4_FirGroup	5
Tchaikazan	ESSFxv 1_na	1	Upper Tatlayoko	IDF dk 4_PineGroup	6
Tchaikazan	MS dv_na	5	Upper Tatlayoko	IDF dw_FirGroup	3
Tchaikazan	SBPSxc_na	5	Upper Tatlayoko	IDF dw_PineGroup	6

Landscape Unit	Landscape Unit Biogeoclimatic Unit		Landscape Unit	Biogeoclimatic Unit	WTR Target (% gross area)
Telegraph	ESSFxv 1_na	7	Upper Tatlayoko	MS dc 2_na	5
Telegraph	h IDF dw_FirGroup		Upper Tatlayoko	MS xv_na	6
Telegraph	ph IDF dw_PineGroup		Upper Tatlayoko	SBPSxc_na	6
Telegraph	IDF ww_FirGroup	0	Wasko/Lynx	ESSFwc 3_na	5
Telegraph	IDF ww_PineGroup	0	Wasko/Lynx	ESSFwk 1_na	6
Telegraph	MS xv_na	7	Wasko/Lynx	ICH wk 2_na	6
Telegraph	SBPSxc_na	7	Westbranch	ESSFxv 1_na	3
Tete Angela	ESSFxv 1_na	7	Westbranch	IDF dk 4_FirGroup	5
Tete Angela	IDF dk 4_FirGroup	6	Westbranch	IDF dk 4_PineGroup	3
Tete Angela	IDF dk 4_PineGroup		Westbranch	IDF dw_FirGroup	4
Tete Angela	MS xv_na	7	Westbranch	IDF dw_PineGroup	5
Tete Angela	SBPSxc_na	7	Westbranch	MS dc 2_na	3
Tiedemann	CWH ds 1_na	0	Westbranch	MS xv_na	5
Tiedemann	CWH ms 1_na	0	Westbranch	SBPSxc_na	4
Tiedemann	MH mm 2_na	0	Westside	ESSFwc 3_na	0
Tusulko	ESSFxv 1_na	8	Westside	ESSFwk 1_na	4
Tusulko	MS xv_na	6	Westside	ICH wk 2_na	7
Tusulko	SBPSxc_na	7	Williams Lake	IDF dk 3_FirGroup	8
Twan	IDF dk 3_FirGroup	7	Williams Lake	IDF dk 3_na	10
Twan	IDF dk 3_PineGroup	8	Williams Lake	IDF dk 3_PineGroup	9
Twan	IDF xm_FirGroup	7	Williams Lake	IDF xm_FirGroup	8
Twan	IDF xm_PineGroup	6	Williams Lake	IDF xm_PineGroup	9
Twan	SBPSdc_na	8	Williams Lake	SBPSmk_na	9
Twan	SBPSxc_na	8	Williams Lake	SBS dw 2_na	10

# Appendix E – Cariboo Chilcotin Natural Resource District Recreation

(as per the Forest Tenure Administration (FTA)

RSTBC Recreation Sites, Recreation Trails and Interpretive Forests within the Cariboo Chilcotin Natural Resource District (as of February 24, 2017)

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC106423	Tatla Lake Ski Trails	RTR - Recreation Trail	Remarks: trails were originally established as a polygon feature (REC2985) Jan 31 1998.  Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Tatla Lake Cross Country Ski Trails for a semi-primitive recreation experience and maintain them in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. Use of motor vehicles is prohibited from November 15th to May 1st each year. The coniferous and deciduous vegetation features will be maintained along both sides of the trail for 100 meters to provide a wilderness setting. Opportunities for cross country skiing, hiking, biking, and wildlife viewing will be provided at the site.  Access to the parking area will be maintained for seasonal use.
REC135696	CORKSCREW CREEK	RTR - Recreation Trail	
REC150803	150 Mile Trails	RTR - Recreation Trail	
REC166355	BLUFF LAKE PIONEER TRAIL	RTR - Recreation Trail	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Bluff Lake recreation site and access to the Bluff Lake Pioneer Trail for a roaded recreation experience and maintain them in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing will be provided at the site. Opportunities for hiking, climbing, wildlife and panoramic mountain viewing will be provided along the trail. Access will be maintained for two wheel drive vehicles from late April to early October.
REC166367	AGNES LAKE TRAIL	RTR - Recreation Trail	

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC166370	Puntzi Lake Recreation Trails	RTR - Recreation Trail	
REC166404	MacKill Lake Trail	RTR - Recreation Trail	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the MacKill Lake Site and Trail for a semi-primitive non-motorized hike-in wilderness experience and maintain them in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous and deciduous vegetation features will be retained along the trail for 200 meters, and around the lake for 400 meters. No unauthorized motor vehicles are allowed within 200 meters of the centerline of the trail beyond the parking area or within 400 meters of the lakeshore. Opportunities for fishing, camping, canoeing, picnicking, and wildlife viewing will be provided at the site. Rough road access to the parking area will be maintained for two wheel drive vehicles from late May to early October.
REC191109	BULL MOUNTAIN MOTORCYCLE TRAIL	RTR - Recreation Trail	
REC191945	Alexis Creek Cross Country Ski Trails	RTR - Recreation Trail	Remarks: originally established as REC2956 as a polygon feature; Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Alexis Creek Recreation Trails for a semi-primitive recreation experience and maintain them in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. Use of unauthorized motor vehicles is prohibited from November 15th to June 1st each year. The coniferous and deciduous vegetation features will be maintained along both sides of the trail for 100 meters to provide a wilderness setting. Opportunities for cross country skiing, hiking, biking, and wildlife viewing will be provided at the site. Access to the parking area will be maintained for seasonal use.
REC202367	Cochin Lake Cross Country Ski Trails	RTR - Recreation Trail	
REC204215	KLINAKLINI RIVER FALLS TRAIL	RTR - Recreation Trail	
REC206183	Beece Creek	RTR - Recreation Trail	
REC206185	Perkins Peak Trail	RTR - Recreation Trail	

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC230054	Kappan Mountain Lookout Trail	RTR - Recreation Trail	
REC230467	BUTLER PEAK TRAIL	RTR - Recreation Trail	
REC240532	Eagles Nest Marsh Trail	RTR - Recreation Trail	
REC241176	Nimpo Lake Community Trails	RTR - Recreation Trail	
REC2695	BIG STICK LAKE TRAIL	RTR - Recreation Trail	
REC2706	CHARLOTTE LAKE- FISH LAKE TRAIL	RTR - Recreation Trail	
REC2770	Klinaklini - Little McClinchy Cr Route	RTR - Recreation Trail	
REC2844	SUEY/SLATE BAY TRAIL	RTR - Recreation Trail	Objectives: 1997/11/03 To manage the Suey Bay - Slate Bay recreation trail for a roaded recreation experience. Overstory and understory vegetation features will be managed. The trail is generally provided for hiking activities. Lake shoreline features will be retained. Water access will be retained. By January 1999, two-wheel drive gravel road access will be provided.
REC2935	LINGFIELD CREEK TRAIL	RTR - Recreation Trail	
REC2953	BULL MTN SN TRAIL	RTR - Recreation Trail	
REC31946	GAVIN LAKE TRAILS	RTR - Recreation Trail	
REC5722	YANKS PEAK TRAIL (X-DIST)	RTR - Recreation Trail	Objectives: 1997/11/03 To manage the Yank's Peak recreation trail for a natural roaded recreation experience. Overstory and understory vegetation and alpine features will be managed. The trail is provided for snowmobile access to the alpine. Snowmobile access to the trail will be retained.

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC5841	CHRISTENSEN CREEK TRAIL	RTR - Recreation Trail	
REC6040	TULLIN MOUNTAIN TRAIL	RTR - Recreation Trail	
REC6096	PRECIPICE RIMROCK (HOTNARKO FALLS) TRAIL	RTR - Recreation Trail	
REC6097	PANTHEON TRAILS	RTR - Recreation Trail	
REC6098	NORTH POTATO TRAIL	RTR - Recreation Trail	
REC6100	CHROMIUM CREEK - EMERALD LAKE TRAIL (PERKINS PEAK)	RTR - Recreation Trail	
REC6101	BUTLER LAKE TRAIL	RTR - Recreation Trail	
REC6102	BURNT CREEK TRAIL	RTR - Recreation Trail	
REC6237	VALLEAU CREEK TRAIL	RTR - Recreation Trail	
REC6244	LITTLE MCCLINCHY CREEK TRAIL	RTR - Recreation Trail	
REC6254	COLEMAN CREEK - FLYSHACKER CREEK TRAIL	RTR - Recreation Trail	
REC6255	MCCLINCHY CREEK TRAIL	RTR - Recreation Trail	

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC6590	BROWNTOP MTN HIKING TRAIL	RTR - Recreation Trail	
REC6690	DESOUS MOUNTAIN TRAIL	RTR - Recreation Trail	
REC6691	FOX MOUNTAIN TRAIL	RTR - Recreation Trail	
REC6693	SOUTH LAKESIDE TRAIL	RTR - Recreation Trail	
REC6694	SPOKEY HOLLOW TRAIL	RTR - Recreation Trail	
REC6783	TATLAYOKO LAKE TRAIL	RTR - Recreation Trail	
REC6895	GOLD RUSH SNOWMOBILE TRAIL	RTR - Recreation Trail	The objectives of the Gold Rush Snowmobile Trail are to maintain the trail for a semi-primitive recreation experience; to maintain the integrity of the 75m right-of-way of the trail, to protect both visual aesthetic values of the trail, as well as, to preserve favorable snow conditions during winter months. Integrity should be consistent with objectives in place for the Cariboo-Chilcotin Land-Use Plan "buffered trails" (85 percent basal retention). Portions of the Gold Rush Recreation Trail are currently identified as Cariboo-Chilcotin Land-Use Plan "buffered trails"; The Gold Rush Recreation Trail has sections of trail that are on "non-status roads", these sections will continue to have recreation trail as their primary use; The trail currently consists of two recreation project numbers: REC 6894 in the 100 Mile House Natural Resource District; and REC 6895 in the Cariboo-Chilcotin Natural Resource District, linking together to form a continuous route from 70 Mile House to Horsefly.
REC6940	LIEUTENANT PALMER TRAIL	RTR - Recreation Trail	
REC97879	MT STEVENSON TRAIL	RTR - Recreation Trail	
REC97983	VIEWLAND MTN TRAIL	RTR - Recreation Trail	
REC98871	OLD BLUFF LAKE ROAD	RTR - Recreation Trail	

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC98929	Sapeye - Waterlily Creek Trail	RTR - Recreation Trail	Remarks: established as a polygon (REC5826) but also expressed as a linear feature under REC98929. Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Sapeye Creek and Waterlily Recreation Trails for a semi-primitive recreation experience and maintain them in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. Use of motor vehicles is prohibited. The coniferous and deciduous vegetation features will be maintained along both sides of the trail for 100 meters to provide a wilderness setting. Opportunities for cross country skiing, hiking, photography and wildlife and panoramic mountain viewing will be provided at the site. Rough road access to the parking areas will be maintained for four wheel drive vehicles from mid May to early October.
REC99013	Eagle Bluff Trail	RTR - Recreation Trail	
REC16103	YANKS PEAK TRAILHEAD	SIT - Recreation Site	
REC1873	SWARTZ LAKE	SIT - Recreation Site	
REC191002	Little River	SIT - Recreation Site	
REC191004	FOX MOUNTAIN TRAILHEAD	SIT - Recreation Site	
REC230081	KESTREL LAKE	SIT - Recreation Site	
REC230856	Moffat Falls Trail Head	SIT - Recreation Site	
REC240705	Yanks Peak Parking	SIT - Recreation Site	
REC2507	BRIGHAM SPRINGS	SIT - Recreation Site	

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC2532	BRUNSON LAKE	SIT - Recreation Site	Objectives: 1997/05/23 To provide opportunities for roaded resource recreation experiences. To maintain the wildlife features, vegetation features, and water body features. To provide opportunities for fishing activities, camping activities, water sport activities (canoeing), and viewing activities. To provide gravel road (2 wheel-drive) access to the site.
REC2533	CHIMNEY LAKE NORTH	SIT - Recreation Site	Objectives: 1997/05/23 To provide opportunities for roaded resource recreation experiences. To maintain the broad landform features, vegetation features and waterbody features. To provide opportunities for fishing activities, camping activities, water sport activities (swimming, boating), and viewing activities To provide gravel road (2 wheel-drive) access to the site.
REC2534	FELKER LAKE	SIT - Recreation Site	Objectives: 1997/05/23 To provide opportunities for roaded resource recreation experiences. To maintain the vegetation features and water body features. To provide opportunities for fishing activities, camping activities, and water sport activities (swimming, canoeing). To provide gravel road (2 wheel-drive) access to the site.
REC2535	JACKSONS HOLE	SIT - Recreation Site	
REC2536	TYEE LAKE EAST	SIT - Recreation Site	
REC2537	BLUE LAKE NORTH	SIT - Recreation Site	Objectives: 1997/05/23 To provide opportunities for roaded resource recreation experiences. To maintain the aquatic flora/fauna features and waterbody features. To provide opportunities for water sport activities (canoeing, swimming). To provide gravel road (2 wheel-drive) access to the site or trail.
REC2538	DUGAN LAKE	SIT - Recreation Site	Objectives: 1997/05/23 To provide opportunities for roaded resource recreation experiences. To maintain the aquatic flora/fauna features and waterbody features. To provide opportunities for fishing activities, camping activities, and water sport activities (canoeing). To provide gravel road (2 wheel-drive) access to the site.
REC2539	ELK (ISLAND) LAKE	SIT - Recreation Site	
REC2540	BLUE LAKE WEST	SIT - Recreation Site	Objectives: 1997/05/23 To provide opportunities for roaded resource recreation experiences. To maintain the wildlife features, vegetation features, and waterbody features. To provide opportunities for water sport activities (canoeing, swimming). To provide gravel road (2 wheel-drive) access to the site.

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC2541	CROOKED LAKE SOUTH	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Crooked Lake South recreation site for a roaded recreation experience. The lake shoreline and beach area will be protected. Swimming, fishing, and camping activities will be provided for at the site. Access will be maintained for two-wheel drive vehicles.
REC2542	KENO LAKE	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Keno Lake recreation site for a roaded resource recreation experience. Keno Lake shoreline and understory vegetation will be retained. Camping, boating and fishing activities will be provided for at the site. Two-wheel drive access and cartop boat launching will be retained.
REC2543	BOSK LAKE NORTH	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Bosk Lake recreation site for a roaded recreation experience. Understory vegetation will be retained. Camping area for fishing and hunting activities will be provided at the site. Two-wheel drive access will be retained.
REC2544	ELBOW LAKE	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Elbow Lake recreation site for a natural roaded recreation experience. The lake shoreline and overstory vegetation features will be retained. Boating, fishing, and camping activities will be provided for at the site. Access will be maintained for two-wheel drive vehicles.
REC2546	HORSEFLY RIVER	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Horsefly River recreation site for a natural roaded recreation experience. Horsefly River shoreline and vegetation will be retained. Camping area for river recreation activities will be provided at the site. Two-wheel drive gravel road access and cartop boat launching will be maintained.
REC2547	QUESNEL LAKE PUBLIC LANDING	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Quesnel Lake Public Landing recreation site for a natural roaded recreation experience. Quesnel Lake shoreline features and vegetation will be protected. Camping, boating, fishing, and beach activities will be provided for at the site. Rough road two-wheel drive access and cartop boat launching will be retained.
REC2548	KLINNE LAKE	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Klinne Lake recreation site for a roaded resource recreation experience. The lake shoreline and vegetation features will be retained. Camping, boating and fishing activities will be provided for at the site. Two-wheel drive access and cartop boat launching will be retained.
REC2549	HORSEFLY BAY	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Horsefly Bay recreation site for a roaded recreation experience. Quesnel Lake shoreline and vegetation features will be retained. Boating, fishing, and camping activities will be provided for at the site. Two wheel drive gravel road access and cartop boat launching will be retained.

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC2550	MITCHELL BAY	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Mitchell Bay recreation site for a natural, roaded recreation experience. Quesnel Lake shoreline features and vegetation will be protected. Camping, boating, fishing, and beach activities will be provided for at the site. Two-wheel drive road access and cartop boat launching will be retained.
REC2551	CROOKED LAKE NORTH	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Crooked Lake North recreation site for a roaded recreation experience. The lake shoreline and vegetation features will be retained. Camping area for hunting and fishing activities will be provided at this site. Access will be maintained for two-wheel drive vehicles.
REC2552	MCKINLEY LAKE	SIT - Recreation Site	Objectives: 1997/11/03 To manage the McKinley Lake recreation site for a roaded resource recreation experience. The man-made dam features will be protected and the lake shoreline and understory vegetation features retained. Camping areas for fishing and hunting activities will be provided at the site. Two-wheel drive gravel access and cartop boat launching will be retained.
REC2553	HEN INGRAM LAKE WEST	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Hen Ingram Lake West recreation site for a roaded recreation experience. The lake shoreline features will be protected. Camping areas for fishing and hunting activities will be provided at the site. Four-wheel drive access and cartop boat launching will be retained.
REC2554	TISDALL LAKE	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Tisdall Lake recreation site for a natural roaded recreation experience. Shoreline features and vegetation will be protected. Camping area for fishing and hunting activities will be provided for at the site. Two wheel drive access and cartop boat launching will be retained.
REC2555	QUESNEL FORKS	SIT - Recreation Site	Objectives: 1997/11/03 Prior to December 200, to manage the Quesnel Forks recreation site for a roaded recreation experience. Maintain the status quo for recreation use management. Beginning January 2001, manage as a rural recreation opportunity. Historical values, river shoreline and overstory vegetation features will be protected. Camping activities will be provided for at the site. Two-wheel drive road access will be maintained.
REC2556	CARIBOO ISLAND NORTH	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Cariboo Island North recreation site for a natural recreation experience. Quesnel Lake shoreline and culturally modified features will be protected, and the vegetation maintained. Camping and day use activities will be provided for at the site. Water access will be retained.
REC2557	CARIBOO ISLAND SOUTH	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Cariboo Island South recreation site for a natural recreation experience. Quesnel Lake shoreline and culturally modified features will be protected, and the vegetation maintained. Camping and day use activities will be provided for at the site. Water access will be retained.

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC2558	WINKLEY CREEK	SIT - Recreation Site	Objective: 1997/11/03 To manage the Winkley Creek recreation site for a roaded recreation experience. Quesnel Lake shoreline features will be retained. Camping , boating, fishing and beach activities will be provided for at the site. Two wheel drive access will be retained.
REC2559	CEDAR DAM LAKE	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Cedar Dam Lake recreation site for a roaded recreation experience. The man-made dam features will be protected and the lake shoreline and overstory vegetation features retained. Day use and camping activities will be provided for at the site. Rough two-wheel drive access will be retained.
REC2561	WOLVERINE LAKE	SIT - Recreation Site	Objectives: 1997/11/03: To manage the Wolverine Lake recreation site for a roaded experience. Shoreline features will be retained. Camping area for fishing and hunting activities will be provided for at the site. Two wheel drive access will be retained.
REC2562	SPANISH LAKE	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Spanish Lake recreation site for a natural roaded recreation experience. The lake shoreline and vegetation features will be retained. Camping, boating, and fishing activities will be provided for at the site. Two wheel drive road access and cartop boat launching will be retained.
REC2563	POLLEY LAKE	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Polley Lake recreation site for a roaded recreation experience. The lake shoreline and vegetation features will be retained. Camping area for hunting and fishing activities will be provided at this site. Two-wheel drive road access and cartop boat launching will be retained.
REC2564	JACOBIE LAKE	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Jacobie Lake recreation site for a roaded resource recreation experience. Jacobie Lake shoreline features and Jacobie Creek will be protected. Camping area for fishing and hunting activities will be provided at the site. Two-wheel drive access and cartop boat launching will be retained.
REC2565	BOOTJACK LAKE	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Bootjack Lake recreation site for a rural recreation experience. Overstory vegetation will be retained. Camping area for fishing and hunting activities will be provided at the site. Two-wheel drive road access and cartop boat launching will be retained.
REC2566	ABBOTT CREEK	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Abbott Creek recreation site for a natural roaded recreation experience. Quesnel Lake shoreline features and vegetation will be protected. Camping, boating, fishing, and beach activities will be provided for at the site. Two-wheel drive road access and cartop boat launching will be retained.
REC2567	LADIES CREEK	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Ladies Creek recreation site for a roaded resource recreation experience. The lake shoreline and understory vegetation features will be retained. Camping areas for fishing and hunting activities will be provided at the site. Two-wheel drive access and cartop boat launching will be retained.

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC2594	MCINTYRE LAKE	SIT - Recreation Site	
REC2595	BECHER'S POND	SIT - Recreation Site	
REC2597	TILL LAKE NORTH	SIT - Recreation Site	Objectives: 1997/05/23 To provide opportunities for roaded resource recreation experiences. To maintain the aquatic flora/fauna features, waterbody features, and bedrock features. To provide opportunities for fishing activities, camping activities, and water sport activities (swimming). To provide gravel road (2 wheel-drive) access to the site.
REC2599	FLETCHER LAKE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Fletcher Lake recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous and deciduous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing will be provided at the site. Access will be maintained for two wheel drive vehicles from mid May to early October.
REC2600	RAVEN LAKE	SIT - Recreation Site	Objectives: 1997/05/23 To manage the Raven Lake recreation site to provide opportunities for roaded resource recreation experiences. To maintain the aquatic flora/fauna features and waterbody features. To provide opportunities for fishing activities and camping activities. To provide gravel road (2 wheel-drive) access to the site.
REC2602	ALEXIS LAKE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Alexis Lakes recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline, adjacent to the swimming beach will be maintained and coniferous vegetation features will be retained. Opportunities for swimming, fishing, camping, boating, canoeing, picnicking, wildlife viewing, and ice fishing will be provided at the site. Rough road access will be maintained for two wheel drive vehicles from late April to early October.
REC2603	PALMER LAKE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Palmer Lake recreation site for a semi-primitive roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous and deciduous vegetation features will be retained. Opportunities for fishing, camping, boating, hiking, canoeing, picnicking, and wildlife viewing will be provided at the site. Very rough road access will be maintained for four wheel drive vehicles from late May to early October.

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC2604	FISH LAKE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Fish Lake recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing, will be provided at the site. Very rough road access will be maintained for four wheel drive vehicles from mid May to early October.
REC2606	VEDAN LAKE NORTH	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Vedan Lake recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous and deciduous vegetation features will be retained. Opportunities for fishing, camping, boating, swimming, canoeing, picnicking, and wildlife viewing will be provided at the site. Access will be maintained for two wheel drive vehicles from mid May to early October.
REC2607	TWO LAKE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Two Lake recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous and deciduous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing will be provided at the site. Access will be maintained for two wheel drive vehicles from mid May to early October.
REC2609	DAVIDSON BRIDGE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Davidson Bridge recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The river shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, picnicking, kayaking/rafting and wildlife and salmon viewing will be provided at the site. Access will be maintained for two wheel drive vehicles from late April to early October.
REC2611	BIG LAKE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Big Lake recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing will be provided at the site. Rough road access will be maintained for four wheel drive vehicles from late April to early October.

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC2613	CHILKO-TASEKO JUNCTION	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Chilko-Taseko Junction recreation site for roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The river shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, picnicking, kayaking/rafting and wildlife and salmon viewing will be provided at the site. Rough road access will be maintained for two wheel drive vehicles from mid May to early October.
REC2614	HORN LAKE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Horn Lake recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife and panoramic mountain viewing will be provided at the site. Access will be maintained for two wheel drive vehicles from mid May to early October.
REC2616	EAGLE LAKE WEST	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Eagle Lake recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and deciduous and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, windsurfing, sailing, picnicking, and wildlife viewing will be provided at the site. Access will be maintained for two wheel drive vehicles from late April to early October.
REC2618	PYPER LAKE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Pyper Lake recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous and deciduous vegetation features will be retained. Opportunities for fishing, camping, swimming, boating, canoeing, picnicking, and wildlife viewing will be provided at the site. Access will be maintained for two wheel drive vehicles from mid May to early October.
REC2619	PINTO LAKE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Pinto Lake recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous and deciduous vegetation features will be retained. Opportunities for camping, canoeing, picnicking, and wildlife viewing will be provided at the site. Access will be maintained for two wheel drive vehicles from mid May to early October.

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC2620	PUNTZI LAKE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Puntzi Lake recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous and deciduous vegetation features will be retained. Opportunities for fishing, camping, swimming, boating, canoeing, picnicking, and wildlife viewing will be provided at the site. Access will be maintained for two wheel drive vehicles from mid May to early October.
REC2621	FISH TRAP (DEAN R)	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Dean River-Fish Trap recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing will be provided at the site. Access will be maintained for four wheel drive vehicles from late April to early October.
REC2622	CHARLOTTE LAKE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Charlotte Lake recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline, adjacent to the swimming beaches will be maintained and coniferous vegetation features will be retained. Opportunities for swimming beach activities, fishing, camping, boating, canoeing, picnicking, and wildlife viewing will be provided at the site. Rough road access will be maintained for two wheel drive vehicles from mid May to early October.
REC2624	BLUFF LAKE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Bluff Lake recreation site and access to the Bluff Lake Pioneer Trail for a roaded recreation experience and maintain them in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing will be provided at the site. Opportunities for hiking, climbing, wildlife and panoramic mountain viewing will be provided along the trail. Access will be maintained for two wheel drive vehicles from late April to early October.

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC2625	ONE EYE LAKE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the One Eye Lake recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous and deciduous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing, will be provided at the site. Access will be maintained for two wheel drive vehicles from mid May to early October.
REC2626	SAPEYE LAKE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Sapeye Lake recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous and deciduous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, hiking and wildlife and panoramic mountain viewing will be provided at the site. Rough road access will be maintained for four wheel drive vehicles from mid May to early October.
REC2627	TATLAYOKO LAKE NORTHEAST	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Tatlayoko Lake recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and deciduous and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, swimming, windsurfing, sailing, and wildlife and panoramic mountain viewing will be provided at the site. Access will be maintained for two wheel drive vehicles from mid May to early October.
REC2629	EAGLE LAKE NORTH	SIT - Recreation Site	
REC2630	COCHIN LAKE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Cochin Lake recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing, will be provided at the site. Rough road access will be maintained for two wheel drive vehicles from late April to early October.

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC2632	TATLA LAKE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Tatla Lake recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous and deciduous vegetation features will be retained. Opportunities for fishing, camping, swimming, boating, canoeing, picnicking, and wildlife viewing will be provided at the site. Rough road access will be maintained for two wheel drive vehicles from mid May to early October.
REC2633	CHOELQUOIT LAKE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Choelquoit Lake recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, sailing, windsurfing, canoeing, picnicking, and wildlife viewing, will be provided at the site. Access will be maintained for two wheel drive vehicles from mid May to early October.
REC2634	McCLINCHY CREEK	SIT - Recreation Site	
REC2635	KAPPAN LAKE WEST	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Kappan Lake West recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous and deciduous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife and panoramic mountain viewing will be provided at the site. Very rough road access will be maintained for four wheel drive vehicles from late May to early October.
REC2638	HOWES LAKE	SIT - Recreation Site	Objectives: 1997/05/23 To provide opportunities for roaded resource recreation experiences. To maintain the aquatic flora/fauna features, wildlife features, and waterbody features. To provide opportunities for fishing activities and camping activities. To provide gravel road (2 wheel-drive) access to the site.
REC2641	CHIMNEY LAKE SOUTH	SIT - Recreation Site	
REC2646	DORSEY LAKE	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Dorsey Lake recreation site for a roaded recreation experience. The lake shoreline and vegetation features will be retained. Day use and camping activities will be provided for at the site. Four-wheel drive access and cartop boat launching will be retained.

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC2648	MAEFORD LAKE	SIT - Recreation Site	
REC2671	MCINTOSH LAKE	SIT - Recreation Site	
REC2676	JACQUES LAKE	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Jacques Lake recreation site for a roaded resource recreation experience. Jacques Lake shoreline features and vegetation will be retained. Camping areas for fishing and hunting activities will be provided at the site. Two-wheel drive access and cartop boat launching will be retained.
REC2679	ROBERTS LAKE	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Roberts Lake recreation site for a rural recreation experience. Overstory vegetation will be retained. Day use and camping activities will be provided for at the site. Two-wheel drive access and cartop boat launching will be retained.
REC2684	HORSEFLY RIVER FLATS	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Horsefly River Flats recreation site for a roaded recreation experience. Horsefly River shoreline and vegetation will be retained. Camping area for river recreation activities will be provided at the site. Two wheel drive access and cartop boat launching will be maintained.
REC2690	BULL MOUNTAIN SKI TRAIL	SIT - Recreation Site	Objectives: 1997/05/23 To manage the Bull Mountain Ski Trails for a roaded resource recreation experiences. To maintain the broad landform features, and trail or route features. To provide opportunities for snow sport activities (cross country skiing), nature activities, and viewing activities.
REC2705	CHAUNIGAN LAKE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Chaunigan Lake recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife and panoramic mountain viewing, will be provided at the site. Very rough road access will be maintained for four wheel drive vehicles from mid May to early October.
REC2727	DEWAR LAKE	SIT - Recreation Site	
REC2744	FIR LAKE	SIT - Recreation Site	
REC2763	HORSEFLY RIVER TWO	SIT - Recreation Site	

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC2798	MINER LAKE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Miner Lake recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous and deciduous vegetation features will be retained. Opportunities for fishing, camping, boating, hiking, canoeing, picnicking, and wildlife and panoramic mountain viewing will be provided at the site. Rough road access will be maintained for four wheel drive vehicles from late May to early October.
REC2854	TSUNIAH LAKE BAY	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Tsuniah Bay recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous and deciduous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, swimming and wildlife viewing will be provided at the site. Rough road access will be maintained for four wheel drive vehicles from mid May to early October.
REC2876	RAFT CREEK	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Raft Creek recreation site for a natural roaded recreation experience. Quesnel Lake shoreline and vegetation features will be protected. Camping, boating, fishing, and beach activities will be provided for at the site. Two-wheel drive road access will be retained.
REC2883	BOSWELL LAKE	SIT - Recreation Site	
REC2916	FOREST LAKE	SIT - Recreation Site	
REC2921	CHIMNEY LAKE CENTRE	SIT - Recreation Site	
REC2928	SCUM LAKE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Scum Lake recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous and deciduous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing will be provided at the site. Rough road access will be maintained for four wheel drive vehicles from mid May to early October.

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC2948	GAVIN LAKE	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Gavin Lake recreation site for a rural recreation experience. The lake shoreline and vegetation features will be retained. Boating, fishing, and camping activities will be provided for at the site. Access will be maintained for two-wheel drive vehicles.
REC2949	BIG STICK LAKE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Big Stick recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline, adjacent to the swimming beach will be maintained and coniferous vegetation features will be retained. Opportunities for swimming, fishing, camping, boating, canoeing, picnicking, wildlife viewing, and hiking will be provided at the site. Rough road access will be maintained for two wheel drive vehicles from mid May to early October.
REC2950	PRAIRIE CREEK	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Prairie Creek recreation site for a roaded recreation experience. Horsefly Lake shoreline and vegetation features will be retained. Camping area for hunting and fishing activities will be provided at this site. Two-wheel drive and boat access and cartop boat launching will be retained.
REC2954	CORNER LAKE TRAIL	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Corner Lake recreation trail for a natural roaded recreation experience. Overstory vegetation features will be retained. The trail is provided for hiking and cross country skiing. Two-wheel drive access to the trail will be maintained.
REC2956	ALEXIS CREEK CROSS-COUNTRY SKI TRAIL	SIT - Recreation Site	Remarks: originally established as REC2956 as a polygon feature, but also expressed spatially as a linear feature under REC191945; Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Alexis Creek Recreation Trails for a semi-primitive recreation experience and maintain them in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. Use of unauthorized motor vehicles is prohibited from November 15th to June 1st each year. The coniferous and deciduous vegetation features will be maintained along both sides of the trail for 100 meters to provide a wilderness setting. Opportunities for cross country skiing, hiking, biking, and wildlife viewing will be provided at the site. Access to the parking area will be maintained for seasonal use.
REC2978	ABBOTT LAKE TRAIL	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Abbott Lake recreation trail for a rural recreation experience. Understory vegetation and lake shoreline features will be retained. The trial is provided for hiking and small boat portage. Gravel road two-wheel drive access to the trail will be maintained.

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC2983	KAPPAN LAKE EAST	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Kappan Lake East recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous and deciduous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, swimming and beach activities, picnicking, and wildlife viewing will be provided at the site. Rough road access will be maintained for two wheel drive vehicles from late May to early October.
REC2984	MACKILL LAKE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the MacKill Lake Site and Trail for a semi-primitive non-motorized hike-in wilderness experience and maintain them in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous and deciduous vegetation features will be retained along the trail for 200 meters, and around the lake for 400 meters. No unauthorized motor vehicles are allowed within 200 meters of the centerline of the trail beyond the parking area or within 400 meters of the lakeshore. Opportunities for fishing, camping, canoeing, picnicking, and wildlife viewing will be provided at the site. Rough road access to the parking area will be maintained for two wheel drive vehicles from late May to early October.
REC2985	TATLA LAKE CROSS-COUNTRY SKI TRAILS	SIT - Recreation Site	Remarks: trails were originally established as a polygon feature (REC2985) Jan 31 1998. Now the trails are expressed spatially as a linear feature under REC106423. Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Tatla Lake Cross Country Ski Trails for a semi-primitive recreation experience and maintain them in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. Use of motor vehicles is prohibited from November 15th to May 1st each year. The coniferous and deciduous vegetation features will be maintained along both sides of the trail for 100 meters to provide a wilderness setting. Opportunities for cross country skiing, hiking, biking, and wildlife viewing will be provided at the site. Access to the parking area will be maintained for seasonal use.
REC2987	WILLIAMS LAKE RIVER VALLEY	SIT - Recreation Site	
REC2999	HEN INGRAM LAKE	SIT - Recreation Site	Objectives: 1997/11/03 To manage the Hen Ingram Lake recreation site for a natural roaded recreation experience. Hen Ingram Lake shoreline features and immature vegetation will be protected. Camping areas for fishing and hunting activities will be provided at the site. Two-wheel drive gravel road access and cartop boat launching will be retained.

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC3450	HOTNARKO LAKE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Hotnarko Lake recreation site for a semi-primitive motorized roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous and deciduous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife and panoramic mountain viewing will be provided at the site. Very rough road access will be maintained for four wheel drive vehicles from late May to early October.
REC5614	WARTTIG LAKE	SIT - Recreation Site	Objective: 1997/11/03 To manage the Wartig Lake Recreation Site for a natural roaded recreation experience. The lake, shoreline and vegetation features will be retained.  Boating, fishing, and camping activities will be provided for at the site. Two wheel drive gravel road access and cartop boat launching will be retained. The monument to Bert Wartig will be protected.
REC5726	CLEARWATER LAKE	SIT - Recreation Site	Objectives: established 1998/02/26, amended 2003/02/24; The objectives are to manage the Clearwater Lake recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing, will be provided at the site. Access will be maintained for two wheel drive vehicles from late April to early October.
REC5826	SAPEYE CREEK	SIT - Recreation Site	Remarks: established as a polygon (REC5826) but also expressed as a linear feature under REC98929. Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Sapeye Creek and Waterlily Recreation Trails for a semi-primitive recreation experience and maintain them in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. Use of motor vehicles is prohibited. The coniferous and deciduous vegetation features will be maintained along both sides of the trail for 100 meters to provide a wilderness setting. Opportunities for cross country skiing, hiking, photography and wildlife and panoramic mountain viewing will be provided at the site. Rough road access to the parking areas will be maintained for four wheel drive vehicles from mid May to early October.

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC5860	POISON LAKE	SIT - Recreation Site	Objectives: established 1998/06/22, amended 2003/02/24; The objectives are to manage the Poison Lake recreation site for a roaded recreation experience and maintain it in a safe, socially acceptable, and environmentally sound condition to Ministry of Forests Standards. The lake shoreline will be maintained and coniferous and deciduous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing will be provided at the site. Access will be maintained for two wheel drive vehicles from mid May to early October.
REC6458	MOFFAT LAKE	SIT - Recreation Site	Objectives: 1997/11/03: To manage the Moffat Lake recreation site for a roaded recreation experience. The lake shoreline features will be protected. Camping area for hunting and fishing activities will be provided at this site. Two wheel drive access and cartop boat launching will be retained.
REC6706	YANKS PEAK SNOWMOBILE CABIN	SIT - Recreation Site	

## **Appendix F—Quesnel Natural Resource District Recreation**

(as per the Forest Tenure Administration (FTA)

RSTBC Recreation Sites, Recreation Trails and Interpretive Forests within the Quesnel Natural Resource District (as of February 24, 2017)

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC106708	COW MOUNTAIN TRAILS	RTR - Recreation Trail	
REC106734	PROSERPINE TRAIL	RTR - Recreation Trail	
REC106859	MEADOW TRAILS WELLS	RTR - Recreation Trail	
REC135588	VAN WINKLE TRAIL	RTR - Recreation Trail	
REC135590	GROUSE CREEK TRAIL	RTR - Recreation Trail	
REC135593	POWDERHOUSE TRAIL	RTR - Recreation Trail	
REC135602	WILLIAMS CREEK TRAIL	RTR - Recreation Trail	
REC135680	ITCHA SEISMIC LINES	RTR - Recreation Trail	
REC135686	NORTH ITCHA TRAILS	RTR - Recreation Trail	
REC16035	TOM BAPTISTE WAGON TRAIL	RTR - Recreation Trail	
REC160471	COW MOUNTAIN DITCH TRAIL	RTR - Recreation Trail	

REC160473	NED'S CONNECTOR TRAIL	RTR - Recreation Trail	
REC160475	VALLEY MOUNTAIN TRAIL	RTR - Recreation Trail	
REC201993	Monkton Trail	RTR - Recreation Trail	
REC230875	TWO SISTERS LOOKOUT TRAIL	RTR - Recreation Trail	
REC2578	JUBILEE TRAIL	RTR - Recreation Trail	Objectives: 99-01-31 Manage for roaded recreation experience; access to trail will be two wheel drive off (Bowron Lake Road). Manage trail to Ministry of Forest safety standards. Trail provides summer non-motorized recreation opportunities, high degree of naturalness, wildlife viewing, winter snow sport activities.

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC2579	YELLO <i>WHA</i> WK TRAIL	RTR - Recreation Trail	Objectives: 99-01-31 Manage for roaded recreation experience; access to trail will be two wheel drive off (Bowron Lake Road). Manage trail to Ministry of Forest safety standards. Trail provides summer non-motorized recreation opportunities; portions of trail have high degree of naturalness, wildlife viewing, primarily winter snow sport activities over the old Keithley to Barkerville mining road, large areas of alpine areas.
REC2682	GROUNDHOG LAKE SKI TRAIL	RTR - Recreation Trail	
REC2880	BEAVERPASS TRAIL	RTR - Recreation Trail	
REC2882	WELLS-WENDLE SKI TRAIL	RTR - Recreation Trail	
REC2888	HUSH LAKE SKI TRAIL	RTR - Recreation Trail	Objectives: 99-01-31 Manage for semi-primitive recreation experience. Manage trail to Ministry of Forest safety standards. Use of motor vehicles for recreation purposes prohibited from November 1 to May 1 each year. Opportunities for cross country skiing, hiking, and wildlife viewing. Access to the parking area is maintained by Ministry of Highways.
REC2889	GROUNDHOG LK SN/TR	RTR - Recreation Trail	
REC2955	DRAGON MOUNTAIN TRAILS	RTR - Recreation Trail	
REC2973	PLEASANT VALLEY SKI TRAIL	RTR - Recreation Trail	
REC2977	DEACON CREEK TR	RTR - Recreation Trail	Objectives: 01-03-12 The objectives is to manage the Deacon Creek trails for a semi-primitive motorized recreation experience. Opportunities for snowmobiling in the winter months and ATV, trail bike, mountain bike use in the summer months. The trail will be maintained and adjacent vegetation conserved.

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC2982	COLLINS TELEGRAPH TRAIL	RTR - Recreation Trail	Objectives: 99-01-31 Manage for roaded recreation experience; access to trail will be two wheel drive off (Blackwater Road). Manage trail to Ministry of Forest safety standards. Trail provides summer non-motorized recreation opportunities, wildlife viewing, winter snow sport activities.
REC5594	CARIBOO WAGON ROAD (STANLEY TO BARKERVILLE)	RTR - Recreation Trail	Proclaimed Heritage Trail under Heritage Conservation Act
REC5595	DESERTERS CREEK FALLS	RTR - Recreation Trail	Remarks: Hiking The total width of the recreation trail right of way shall be three metres on either side of the centre line of the trail, or to the boundary of trail area, whichever is greatest. (in the gazette); Objectives: 01-03-12 Manage for roaded recreation experience. Two wheel drive access to parking area, Ministry of highways maintained off West Fraser Road. Trail provides summer non-motorized recreation opportunities, hiking, wildlife viewing.
REC6702	CORNISH X- COUNTRY SKI TRAILS	RTR - Recreation Trail	
REC6866	1861 GOLDRUSH PACK TRAIL	RTR - Recreation Trail	
REC6917	SUGAR CREEK LOOP TRAIL	RTR - Recreation Trail	
REC6919	STONEY LAKE TRAILS	RTR - Recreation Trail	
REC97281	HALLIS LAKE SKI TRAILS	RTR - Recreation Trail	
REC97307	HANGMANS TRAILS	RTR - Recreation Trail	
REC99112	CRATER LAKE TRAIL	RTR - Recreation Trail	
REC106738	WENTWORTH LAKE WALK IN	SIT - Recreation Site	

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC135538	HANGMAN SPRINGS PIT	SIT - Recreation Site	
REC191007	TWO SISTERS LOOKOUT	SIT - Recreation Site	
REC204209	SARDINE LAKE	SIT - Recreation Site	
REC2569	NYLAND LAKE	SIT - Recreation Site	Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing. Access will be maintained for two wheel drive vehicles from late April to early October.
REC2570	LIGHTNING CREEK	SIT - Recreation Site	Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Adjacent to river, coniferous vegetation features will be retained. Opportunities for fishing, camping, canoeing, picnicking, and wildlife viewing. Access will be maintained for two wheel drive vehicles from late April to early October.
REC2571	TREGILLUS WILLOW	SIT - Recreation Site	
REC2572	BEAVERMOUTH	SIT - Recreation Site	Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Adjacent to river, coniferous vegetation features will be retained. Opportunities for fishing, camping, canoeing, picnicking, and wildlife viewing. Access will be maintained for two wheel drive vehicles from late April to early October.
REC2573	CUISSON LAKE	SIT - Recreation Site	
REC2574	BENSON LAKE	SIT - Recreation Site	
REC2575	DAVEY LAKE	SIT - Recreation Site	
REC2577	VICTORIA CREEK	SIT - Recreation Site	

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC2581	TZENZAICUT LAKE NORTH	SIT - Recreation Site	Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing. Access will be maintained for two wheel drive vehicles from late April to early October.
REC2584	TWAN LAKE	SIT - Recreation Site	Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing. Access will be maintained for two wheel drive vehicles from late April to early October.
REC2585	HANHAM LAKE	SIT - Recreation Site	
REC2587	SNAG LAKE	SIT - Recreation Site	Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing. Access will be maintained for two wheel drive vehicles from late April to early October.
REC2589	WEST LAKE	SIT - Recreation Site	
REC2590	BATNUNI LAKE EAST	SIT - Recreation Site	
REC2591	BOAT LAKE WEST	SIT - Recreation Site	Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing. Access will be maintained for two wheel drive vehicles from late April to early October.
REC2592	TITETOWN LAKE WEST	SIT - Recreation Site	

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC2593	BOOT LAKE	SIT - Recreation Site	Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing. Access will be maintained for two wheel drive vehicles from late April to early October.
REC2657	GROUNDHOG LAKE	SIT - Recreation Site	
REC2658	ATAN LAKE	SIT - Recreation Site	Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing. Access will be maintained for two wheel drive vehicles from late April to early October.
REC2659	CHISEL LAKE	SIT - Recreation Site	Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing. Access will be maintained for two wheel drive vehicles from late April to early October.
REC2660	CRESCENT LAKE	SIT - Recreation Site	Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing. Access will be maintained for two wheel drive vehicles from late April to early October.
REC2678	BATNUNI LAKE WEST	SIT - Recreation Site	Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing. Access will be maintained for two wheel drive vehicles from late April to early October.

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC2752	HALLIS LAKE RANGE	SIT - Recreation Site	Remarks: Established 98/01/31. Varied (expanded) 03/09/05; Objectives: Manage for world class cross country ski experiences, for beginner intermediate and advanced skiers. Maintain to Ministry of Forests standards. Summer and winter non-motorized recreation trails. Opportunity for cross country skiing, hiking, biking, and wildlife viewing.
REC2790	MAUDE LAKE	SIT - Recreation Site	Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing. Access will be maintained for two wheel drive vehicles from late April to early October.
REC2830	WHISKEY FLATS	SIT - Recreation Site	Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Adjacent to stream, coniferous vegetation features will be retained. Opportunities for camping, canoeing, picnicking, and wildlife viewing. Access will be maintained for two wheel drive vehicles from late April to early October.
REC2859	TWIN LAKES	SIT - Recreation Site	Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing. Access will be maintained for two wheel drive vehicles from late April to early October.
REC2869	WENTWORTH LAKE	SIT - Recreation Site	Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, canoeing, picnicking, and wildlife viewing. Access to parking area will be maintained for two wheel drive vehicles from late April to early October.
REC2881	CUISSON LAKE SOUTH	SIT - Recreation Site	Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing. Access will be maintained for two wheel drive vehicles from late April to early October.

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC2885	FISHPOT LAKE SOUTH	SIT - Recreation Site	Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing. Access will be maintained for two wheel drive vehicles from late April to early October.
REC2886	PELICAN LAKE SOUTH	SIT - Recreation Site	Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing. Access will be maintained for two wheel drive vehicles from late April to early October.
REC2907	KEVIN LAKE	SIT - Recreation Site	Remarks: Cancelled 02/01/04.; Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, boating, canoeing, picnicking, and wildlife viewing. Four wheel drive vehicle access.
REC2939	HONOLULU INDIAN HEAD	SIT - Recreation Site	Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Adjacent to river, coniferous vegetation features will be retained. Opportunities for fishing, camping, canoeing, picnicking, and wildlife viewing. Access will be maintained for two wheel drive vehicles from late April to early October.
REC2940	HANGMAN SPRINGS	SIT - Recreation Site	Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for camping, picnicking, hiking, biking, horse riding, wildlife viewing. Access will be maintained for two wheel drive vehicles from late April to early October.
REC2941	SNAKING RIVER	SIT - Recreation Site	Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Adjacent to river, coniferous vegetation features will be retained. Opportunities for fishing, camping, canoeing, picnicking, and wildlife viewing. Access will be maintained for two wheel drive vehicles from late April to early October.

FOREST FILE ID	PROJECT NAME	PROJECT TYPE	OBJECTIVE DESCRIPTION
REC2943	CRATER LAKE	SIT - Recreation Site	Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Shoreline will be maintained and coniferous vegetation features will be retained. Opportunities for fishing, camping, canoeing, picnicking, and wildlife viewing. Access to parking area will be maintained for two wheel drive vehicles from late April to early October.
REC5573	WESTROAD RIVER	SIT - Recreation Site	Objectives: 99-01-31 Manage for roaded recreation experience and maintain the Ministry of Forest standards. Adjacent to river, coniferous vegetation features will be retained. Opportunities for fishing, camping, canoeing, picnicking, and wildlife viewing. Access will be maintained for two wheel drive vehicles from late April to early October.
REC5575	KM 64 ALEXANDER MACKENZIE HERITAGE TRAIL	SIT - Recreation Site	Remarks: Objectives: Managed as per the 1993 Alexander Mackenzie Heritage Trail Management Plan
REC97721	SISTERS CREEK	SIT - Recreation Site	

## **Appendix G Stocking Standards**

## The TSM or FSP holder will adopt the Regional Stocking Standards (July 24, 2018), as follows:

Section 44(1) of the Forest Planning and Practices Regulation (*FPPR*) applies to all areas *harvested* under the *Forest Stewardship Plan* except where exempted from the requirement of Section 29(1) or (2) of the Forest and Range Practices Act.

The stocking standards specified in Table X and its addendum shall apply to areas *harvested* under the *Forest Stewardship Plan (FSP)*. These stocking standards may also be applied to areas *harvested* under a previous *FSP* or Forest Development Plan. The stocking standards approved under this *FSP* will apply to an area *harvested* under a previous plan when the stocking standard identification number applicable to a Standard Unit (SU) is submitted to RESULTS.

## **GENERAL STANDARDS**

#### 1) Crop Tree Assessment

Regeneration and free growing surveys will be conducted under the oversight of a Forest Professional and/or Accredited Surveyor. Survey methodologies and tree acceptability criteria are as specified in the *Resource Practices Branch, Silviculture Survey Procedures Manual* and the *FS660- Silviculture Survey Reference* field card, as amended from time to time, unless specified or varied through provisions of this *FSP*.

## 2) Site Identification for the Purpose of Determining Stocking Standard

When determining the appropriate stocking standard in Table X, site identification will be completed based on the procedures and site descriptions contained in Land Management Handbook Number 39 (1997) – A Field Guide to the Forest Site Identification and Interpretation for the Cariboo Forest Region, as amended from time-to-time. For biogeoclimatic subzones that are not contained in the Cariboo Region field guide Handbook Number 23 (1990) – A Guide to the Site Identification and Interpretation for the Kamloops Forest Region and Handbook Number 24 (1993) – A Field Guide for Site Identification and Interpretation for the Southwest Portion of the Prince George Forest Region, as amended from time-to-time, shall be used.

## 3) District Policies That May Apply

Unless otherwise specified in the this *FSP*, where a District approves a policy that varies the standards or procedure described in the *Resource Practices Branch, Silviculture Survey Procedures Manual*, the policy may be applied in the applicable District at the discretion of the obligation holder.

## 4) Deviation from Potential (DFP) Survey Methodology to Assess Stocking Levels

Where *harvesting* on a SU having **even aged stocking standards** has resulted in partial cutting as a result of:

a) forest health management, or

b) where retention of crop trees is required to achieve a *result* or *strategy* in the *FSP* to address an objective set by government,

the deviation from potential (DFP) survey methodology may be used to assess compliance with stocking standards provided:

- a) the stratum contains between five (5) and twenty (20) m<sup>2</sup>/ha of residual basal area in stems  $\geq 12.5$  cm dbh, of preferred and/or acceptable species; and
- b) the stratum is greater than 1 ha in size; and
- c) the SU is not being managed to uneven-aged standards; and

Where the DFP survey methodology is used the applicable stocking standard in Table X, with regard to preferred and acceptable species, minimum tree heights, minimum inter tree distance, stocking targets, regeneration period and free growing period, continue to apply with the following exceptions:

- a) minimum inter tree distance for stems  $\geq 12.5$  cm *dbh* is 0.0 m; and,
- b) subject to d) trees contributing to the retained basal area must be a preferred or acceptable species in the applicable stocking standard or another commercially valuable coniferous species. Trees contributing to the retained basal area must be of good quality as defined in the FS 660 Free growing Damage Criteria for Single Entry Dispersed Retention Stocking Standards (SEDRSS) Managed Stands in Coastal B.C. and for Interior DFP and Layered Surveys;
- c) trees contributing to stocking targets must be preferred or acceptable species specified in the stocking standard; and,
- d) any tree species specifically reserved to address a *result* or *strategy* in the *FSP* will contribute to the measurable basal area on the site.

Sample plot intensity shall be:

- i. for strata < 5 ha, a minimum of 5 plots must be established
- ii. for strata 5 to 20 ha, one plot per ha must be established
- iii. for strata > 20 ha, one plot per ha for the first 20 ha and then 1 plot/2 ha for the remaining area. A stratum will be determined to be sufficiently stocked and/or free growing, if based on the table below,
  - a) the average DFP is  $\leq 0.2$  and there is  $\leq 20\%$  of the plots in the open plot category. A plot is considered an open plot where based on the table below the DFP for the plots is  $\geq 0.40$ ; or
  - b) the stand has a residual *merchantable* basal area ≥ 20 m²/ha of good quality (refer to FS 660 Free growing Damage Criteria for Single Entry Dispersed Retention Stocking Standards (SEDRSS) Managed Stands in Coastal B.C. and for Interior DFP and Layered Surveys) and there is ≤ 20% of the plots in the open plot category.

**Table Deviation from Potential (DFP)** 

	Understorey - well spaced or free growing stems per plot								
BA of Crop Overstorey trees ≥ 12.5 cm <i>dbh</i>	0	1	2	3	4	5	6	7	8
0	1.00	0.76	0.52	0.34	0.22	0.13	0.07	0.03	0.00
1	0.98	0.74	0.51	0.34	0.21	0.13	0.07	0.03	0.00
2	0.96	0.73	0.50	0.33	0.21	0.13	0.07	0.03	0.00
3	0.93	0.71	0.49	0.32	0.20	0.12	0.07	0.03	0.00
4	0.90	0.68	0.47	0.31	0.20	0.12	0.06	0.03	0.00
5	0.86	0.65	0.45	0.30	0.19	0.11	0.06	0.02	0.00
6	0.82	0.62	0.43	0.28	0.18	0.11	0.06	0.02	0.00
7	0.77	0.58	0.40	0.27	0.17	0.10	0.05	0.02	0.00
8	0.72	0.55	0.38	0.25	0.16	0.09	0.05	0.02	0.00
9	0.67	0.51	0.35	0.23	0.15	0.09	0.05	0.02	0.00
10	0.62	0.47	0.32	0.21	0.14	0.08	0.04	0.02	0.00
11	0.57	0.43	0.30	0.20	0.12	0.07	0.04	0.02	0.00
12	0.52	0.39	0.27	0.18	0.11	0.07	0.04	0.01	0.00
13	0.47	0.35	0.24	0.16	0.10	0.06	0.03	0.01	0.00
14	0.42	0.32	0.22	0.15	0.09	0.05	0.03	0.01	0.00
15	0.38	0.28	0.20	0.13	0.08	0.05	0.03	0.01	0.00
16	0.33	0.25	0.17	0.11	0.07	0.04	0.02	0.01	0.00
17	0.29	0.22	0.15	0.10	0.06	0.04	0.02	0.01	0.00
18	0.26	0.19	0.13	0.09	0.06	0.03	0.02	0.01	0.00
19	0.22	0.17	0.12	0.08	0.05	0.03	0.02	0.01	0.00
20	0.19	0.14	0.10	0.07	0.04	0.02	0.01	0.01	0.00
21	0.16	0.12	0.08	0.06	0.04	0.02	0.01	0.00	0.00
22	0.13	0.10	0.07	0.05	0.03	0.02	0.01	0.00	0.00
23	0.11	0.08	0.06	0.04	0.02	0.01	0.01	0.00	0.00
24	0.09	0.07	0.05	0.03	0.02	0.01	0.01	0.00	0.00
25	0.07	0.05	0.04	0.02	0.02	0.01	0.00	0.00	0.00
26	0.05	0.04	0.03	0.02	0.01	0.01	0.00	0.00	0.00
27	0.04	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00
28	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00
29	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

(Note: Red cells: "open", yellow: "partially stocked", and green: "stocked" categories).

#### 5) Intermediate Harvest

Where a stand is *harvested* consistent with *FPPR* section 44 (4), other than *harvesting* for the purpose of uneven-aged management, it shall be deemed an intermediate *harvest* where the *harvested* stand complies with the conditions specified below for a minimum period of 12 months following the completion of *harvesting*:

- a) greater than 20 m<sup>2</sup> average basal must be retained in trees with a diameter at breast high of  $\geq$  12.5 cm; and
- b) no area > 2 ha or 10% of the SU area, whichever is less, has a retained basal area less than 20 m<sup>2</sup>; and
- c) trees contributing to the retained basal area must be the species identified as preferred and acceptable in Table X; and
- d) greater than 50% of the contributing retained basal area must be a preferred tree species as defined in Table X, if it existed on site prior to *harvest*; and
- e) trees contributing to the retained basal area comply with the attributes defined in FS 660 -Free growing damage criteria for multi-storey conifer stands.

If during the 12 months period following the completion of *harvesting* the conditions specified below are not maintained, the licensee shall hold a free growing obligation on the *harvested* area and the appropriate stocking standards in Table X shall be applied.

## 6) Uneven Aged Management

The uneven-aged stocking standards in Table X will be applied in situations where:

- a) the biogeoclimatic (*BEC*) zone/subzone is IDF, SBSdw2 or MSxk and Douglas-fir is the leading species pre-*harvest*; and
- b) the silviculture system for the stand is single tree or the removal of small groups of trees resulting in openings < 0.25 ha in size and the stand is being managed for multi-aged stand structure; and
- c) following completion of harvesting:
  - i. three (3) distinct layers are present

ii.layers 1 and 2 combined is either

- a.  $\geq$  6% crown closure, or
- b.  $> 5m^2/ha$  of basal area in layer 1, and

iii.layers 3 and/or 4 are present.

If upon the completion of *harvesting* a continuous area  $\geq 1$  ha within the NAR area does not meet the requirements of c) above a separate standards unit will be created and even-aged stocking standards shall be applied to the area.

## 7) Conversion of Multi-Story Douglas-fir Stand to Even Aged Management Following a Wildfire

Where a SU or a portion thereof is impacted by a wildfire to the extent that the conditions specified in Section 5(c) "Uneven Aged Management" are no longer met, the impacted portion shall be defined as a separate SU and even-aged stocking standards shall be applied to the area.

## 8) Mixed Wood Stocking Standards

A mixed wood stocking standard may only be applied in situations where:

- a) the net *merchantable* cruise volume is greater than 30% net deciduous; and
- b) the *merchantable* deciduous volume will be utilized; and
- c) the pre-harvest objective specified in the site plan is to manage the SU for mixed wood timber values.

The applicable stocking standard in Table X for a SU shall be converted to a mixed wood stocking standard based on Table XX. Broadleaf species contained in a mixed wood stocking standard shall be considered preferred species.

Table XX: Conversion Table for Conifer Standards to Mixed Wood Standards

Target from Species Standards	g .	Target Stockin g (well- spaced/ ha)	Minimum Stocking Standards (well-spaced/ha)			Minimum Height at Free Growing (m)		Regen	Latest Free
	Species		Min. Preferred & Acceptable at RD & FG	Min. Preferred & Acceptable at RD & FG	Min. FG Conifers	Dec.	Con.	Delay (yrs)	Growing (yrs)
400	As defined by a	400	200	200	200	2.0		7	20
600	productive, reliable and feasible regeneration option (footnote "a") in Reference Guide for FDP Stocking Standards	800	500	400	400	2.0	From Table	7	20
1000		1200	700	600	400	2.0		7	20
1200		1600	1000	800	600	2.0	X for applicable site series	7	20

Where mixed wood standards are applied, black cottonwood, trembling aspen, and common paper birch trees not tallied as well-spaced or free-growing trees will be considered "competing vegetation" for the purpose of assessing the free growing status of the coniferous crop trees, unless Variation from General Standard 13) Standard for the Reduction of Weevil Damage is applied.

#### 9) Broadleaf Stocking Standards

Broadleaf stocking standards may only be applied in situations where:

- a) the net *merchantable* cruise volume is greater than 70% net deciduous; and
- b) the *merchantable* deciduous volume will be utilized; and
- c) the pre-harvest objective specified in the site plans is to manage the SU for broadleaf timber value.

Broadleaf forest health free growing criteria are as specified in the FS660- Silviculture Survey Reference field card.

The applicable stocking standard in Table X for a SU shall be converted to a broadleaf stocking standard based on Table XXX. Broadleaf species contained in a broadleaf stocking standard shall be considered preferred species.

Table XXX: Conversion Table for Conifer Standards to Broadleaf Standards

Target from	Species	Target Stockin	Minimum Stocking Standards (well-spaced/ha)			Minimum Height at Free Growing (m)		Regen	Latest Free
Conifer Standards		g (well- spaced/ ha)	Min. Preferred & Acceptable at RD & FG	Min. Preferred & Acceptable at RD & FG	Min. FG Conifer s	Dec.	Con.	Delay (yrs)	Growing (yrs)
400	As defined by a	600	400	400	n/a	2.0		7	20
600	productive, reliable and feasible	1000	500	400	n/a	2.0	From Table	7	20
1000		1600	1000	800	n/a	2.0		7	20
1200	regeneration option (footnote "a") in Reference Guide for FDP Stocking Standards	2000	1200	1000	n/a	2.0	X for applicable site series	7	20

#### 10) Brush Competition

Where specified in the site plan as leave trees, layer one ( $\geq 12.5 \text{ cm } dbh$ ), black cottonwood, trembling aspen, and birch trees, retained at the time of *harvest* are not considered competing vegetation at the time of the free growing *assessment* of coniferous crop trees.

Black cottonwood, trembling aspen and birch trees, and shrubs species being managed to achieve an objective, *result* or *strategy* of the *FSP* as specified in the site plan, are not considered competing vegetation at the time of free growing evaluation of coniferous crop trees.

Trembling aspen, black cottonwood, birch, willow, and alder are not considered competing brush when conducting a free growing survey within 5 m of S4, S5, and S6 streams and all wetlands greater than 0.25 ha in the ICH and ESSF *BEC* zones, and within 10 m of S4, S5, and S6 streams, and all wetlands greater than 0.25 ha in all other *BEC* zones.

Where a brushing treatment has been undertaken, and a visual buffer is required to achieve a *result* or *strategy*, aspen, cottonwood, birch, willow and alder will not be considered competing brush when conducting a free growing survey where survey plots fall within the buffer.

For the purposes of free growing *assessments* in the SBPS *BEC* zone scrub birch will be considered non-competing when assessing the free growing status of crop trees.

Where the uneven-aged stocking standard applicable to a site specifies a minimum free growing height of 0.4 m for Douglas-fir, snow berry, soopalallie, common juniper, vaciniums sp. saskatoon, birch-leafed spirea, herbaceous vegetation, and grasses are not considered competing vegetation at the time of free growing evaluation of the well-spaced Douglas-fir.

Where required to assess the free growing status of a crop tree the conifer to brush ratio shall be 125% for the ESSF, IDF and MS biogeoclimatic zones, and 150% in the ICH, SBPS and SBS biogeoclimatic zones.

## 11) Lodgepole Pine Dwarf Mistletoe

In SUs where lodgepole pine is the only preferred species, when assessing the free growing status of a well-spaced lodgepole pine crop tree in regard to its proximity to mistletoe infected over topping pine stems, only stems located within the net area to reforest (NAR) portion of the *cutblock* being surveyed will be considered overtopping stems. Therefore, well-spaced lodgepole pine trees that do not have

visible evidence of mistletoe infection remain eligible as potential free growing trees regardless of their proximity or height relative to visibly infected stems that are located outside of the NAR.

## 12) Retained Mistletoe Infected Lodgepole Pine to Address a Result or Strategy

Where lodgepole pine stems are retained consistent with the South Chilcotin Stewardship Plan, for the purpose of visual screening modelled moose habitat or where specifically required by a *result* or *strategy* in the *FSP*, the free growing damage criteria for even-aged coniferous trees as specified in the FS 660 field card, with regard to dwarf mistletoe, will not apply to retained lodgepole pine and subsequent lodgepole pine regeneration, provided that the portion of the *cutblock* where pine are retained as a visual screen or to achieve a *result* or *strategy* in the *FSP* is defined as a unique SU.

#### 13) Limitations on the Use of Larch

The use of western larch must be consistent with the *Chief Forester's Standards for Seed Use*, as amended from time to time. (i.e., western larch restricted to 10% of planting program on an annual basis).

Despite western larch being listed as an acceptable species in the Table X for various biogeoclimatic subzones/site series, western larch shall only be considered an acceptable species where it is established consistent with the LW1 and LW2 seed planning zones.

Larch shall not be considered preferred or acceptable in mule deer winter range (MDWR).

#### 14) Limitations on the Use of White Pine

The use of white pine is restricted to rust resistant seedlots.

Despite white pine's inclusion in a stocking standard, where white pine is planted outside of an "A" Class seed planning zone for white pine the seedlings are considered to be non-compliant with the *Chief Forester's Standard for Seed Use*.

## 15) Enhanced Stocking Standards

Enhanced stocking standards contained in Table X can be applied at the discretion of the obligation holder.

#### 16) Maximum Density Limits at Free Growing

The maximum allowable density at the time of free growing declaration

- a) for pine leading strata where pine is ≥ 80 percent of the inventory is 25,000 countable conifers per hectare:
- b) for all other species and mixed pine stands where pine is less than 80% of the inventory is 10,000 countable stems per hectare; and
- c) for SUs to which uneven-aged stocking standards apply, the maximum density of stems in layer 3 is 10000 stems per hectare.

Where salvage *harvesting* has occurred following a wildfire disturbance the free growing obligation holder is exempt from clauses a) and b) above.

#### VARIATIONS FROM GENERAL STANDARDS

A Forest Professional may vary the stocking standard listed in Table X as defined below in the following situations and circumstances:

## 1) Multiple Years to Harvest a Standard Unit

Where *harvesting* occurs over multiple years on a SU with a 4-year regeneration delay, regeneration delay may be extended to 4 years after the start of the last *harvest* entry to a maximum of 7 years from the initial disturbance date. The late free growing date will be 20 years from the *harvest* start date of the initial *harvest* entry.

## 2) Seven Year Regeneration Delay

Within three (3) years following *harvest* commencement, and where based on a post-*harvest* field *assessment*, if a portion of a SU with a 4 year regeneration delay is planned to be regenerated by natural regeneration or direct seeding, the area being managed for natural regeneration or direct seedling may be defined as a separate standards unit with regeneration delay period of 7 years.

## 3) Changes to Milestones Due To Damage Caused By Wildfire

Where any portion of a standards unit larger than 1 ha is disturbed by wildfire such that the SU is left **Not Satisfactorily Restocked (NSR)** according to the currently approved stocking standard then:

- a) a new disturbance shall be reported for that opening;
- b) the NSR portion of the original standards unit may be defined as a new standards unit; and
- c) the appropriate stocking standards from Table X shall apply to the disturbed area with the exception that;
  - i. if the Regeneration Delay period has not elapsed, then Regeneration Delay and Late Free Growing shall be calculated from the new disturbance date, or
  - ii. if the Regeneration Delay period has elapsed, then a new Regeneration Delay period will not apply and only Late Free Growing shall be calculated from the new disturbance date.

## 4) Pine as a Preferred Species in IDF Subzones

Where in the IDF biogeoclimatic zone an area is being managed with an uneven-aged silviculture system and the pre-*harvest* gross volume is greater than 40% lodgepole pine, and lodgepole pine is an acceptable species in Table X for the applicable site series, lodgepole pine may be elevated to a preferred species to a maximum of 50% of the well-spaced stems.

## 5) Spruce as a Preferred Species in IDF Subzones

Where in the IDF biogeoclimatic zone the pre-*harvest* gross volume is greater than 40% spruce, and spruce is an acceptable species in Table X for the applicable site series, spruce may be elevated to a preferred species to a maximum of 50% of the well-spaced stems.

#### **6) Reduced Minimum Inter-tree Distance**

The minimum inter tree-distance (MITD) for a SU may be varied from the standard defined in Table X in the following situations and circumstances.

- a) Where mechanical site preparation, other than slash piling, has been undertaken to create microsites prior to planting the MITD can be reduced to 1.6m.
- b) On slopes >20% in the ESSF *BEC* zone where protected microsites are critical for successful reforestation due to snow creep, MITD may be reduced to 1.0 m where the SU has been planted to target density or greater.

- c) Where based on a silvicultural survey a SU or portion thereof which has previously been planted has failed to maintain minimum stocking densities, due to the impacts of cattle or horses, the affected area maybe designated as a separate SU. In the newly designated SU the MITD may be reduced to 1.0 m if planting will be completed.
- d) For areas that are identified and mapped as a root disease polygon, which may include up to a 30 m buffer, a separate SU may be created and the MITD may be reduced to 1.6 m where a stump avoidance *strategy* is employed to manage root disease.
- e) Where salvage *harvesting* has been undertaken in the IDF biogeoclimatic zone following a stand initiating wildfire, which is defined as having a level of disturbance such that the stand is NSR prior to salvage *harvesting*, and where the objective is to restore Douglas-fir and even-aged management is required, the MITD for Douglas-fir may be reduced to 0.5 m. The reduced MITD shall apply to the distance between natural or planted Douglas-fir stems and any other preferred or acceptable crop tree species. The MITD between non-Douglas-fir crop trees species (e.g., pine to pine) remains as specified in Table X.
- f) On rocky sites where a plantibility survey has determined that the target stocking cannot be achieved due to the presence of rock when assessed at the applicable MITD, the MITD may be reduced to 1.6 m.

#### 7) Grizzly Bear Habitat

Where consistent with a *result* and/or *strategy* in the *FSP* and prescribed in a site plan pre-*harvest*, a clumped tree distribution is required for the management of grizzly bear habitat, the target density, minimum preferred and acceptable and minimum preferred values in the stocking standards in Table X shall be modified by the factors of 0.67. For example a stocking standard of 1000/500/400 shall become 670/335/268. The minimum intertree distance shall be 1.0 m and maximum density of countable conifers shall be 4000/ha.

The site plan must prescribe the number of trees in a cluster, the number of clusters/hectare and the spacing between clusters.

#### 8) GAR Consistency

Where stocking standards included in this FSP conflict with the management objectives/direction of an Order under the Government Action Regulation (GAR), the stocking standards will be varied to the extent that they do not conflict with management objectives/direction of the applicable GAR Order. Achievement of a stocking standard does not supersede the obligation holder's obligation to be consistent with all requirements specified in the GAR Order.

#### 9) Benchmark Grasslands Standards

Areas *harvested* within the identified Cariboo-Chilcotin Grassland Strategy benchmark area shall have no regeneration or free growing obligation.

## 10) Bighorn Sheep Management Area Standards

For SUs located within the identified Churn Creek Big Horn Sheep Migration Corridor stocking standards may be varied to the extent recommended in writing by a FLNRO&RD Habitat Biologist.

#### 11) Standard for the Reduction of Weevil Damage

If,

- a) there is an active white pine weevil (*Pissodes strobi*) population on the *cutblock* or an *adjacent* managed opening as evidenced by the presence of weevil damaged trees, and
- b) the spruce trees being assessed are of acceptable form and vigour and meet all other acceptability criteria (i.e., preferred or acceptable species, minimum height, MITD),

then for the purpose of assessing the free growing status of spruce crop trees, all deciduous vegetation shall be assessed as non-competing brush.

#### 12) Variations to Preferred or Acceptable Species

The preferred and/or acceptable species in the stocking standards in Table X may be varied to the extent specified below in the following situation and circumstances.

- a) Where greater than 10% of the total *merchantable* volume on the area of a SU, based on a timber cruise, is of a conifer species not identified in the approved stocking standards, that species may be designated an acceptable species where it is ecologically suitable.
- b) Where prior to *harvest* lodgepole pine is greater than 50% of the total *merchantable* volume lodgepole pine can be designated as a preferred species in the following biogeoclimatic subzone/site series:
  - i. ESSFdc2/06 and /07
  - ii. ESSFxc/07 and /08
  - iii. ICHmk3/04 and /06
  - iv. ICHmw3/01
  - v. IDF dk/04
  - vi. IDF mw2/01 and 03
  - vii. IDFxm/06, 07 and /08
  - viii. MSxk/09

## 13) BEC Site Series Mosaics

Where an area consists of a mosaic of two or more biogeoclimatic site series, which cannot be clearly delineated or mapped (i.e., site series are less than one contiguous hectare in size), the stocking standard that applies to the area is the stocking standard for the dominate site series. The applied stocking standard may be varied such that a preferred species from the applicable stocking standard for either site series may be considered a preferred species and an acceptable species from the applicable stocking standard for either site series may be considered an acceptable species.

## 14) Douglas-fir Preferred on Mule Deer Winter Ranges

Within all mule deer winter range units to which this *FSP* applies, Douglas-fir may be considered a preferred species for the purposes of the stocking standards in addition to the species listed in the stocking standards in Table X.

#### 15) Management of Root Disease Sites

For standard units that consist solely of areas that are identified and mapped as a root disease polygon, which may include up to a 30m buffer surrounding the area of infection, an alternate ecologically suitable, commercially valuable species that are moderately susceptible, tolerant, or immune may be specified as preferred and/or acceptable to maximize species diversity on site at the time of planting.

Due to the risk of increased inoculum levels, which may result from a conifer release treatment, on areas that have been identified and mapped and managed as a root disease polygon, which may include up to a

30 m buffer, for the purpose of assessing the free growing status of a conifer crop tree, all trembling aspen, paper birch, black cottonwood, willow and alder shall be assessed as non-competing brush.

## 16) Wildfire Urban Interface (WUI) Stocking Standards

(Currently under development)

## 17) Extension to Regeneration Delay Period Required to Reduce Pressure on Seed Supply and Nursery Capacity as a Result of 2017 Wildfires

Areas managed for natural reforestation may have regeneration delay extended to 9 years when all the following conditions are met:

- a) A regen survey is completed on the site in year 5 or 6 post-harvest start.
- b) The average stocking of preferred and acceptable species is greater than 500 well-spaced/ha.
- c) The regeneration survey has demonstrated that there are significant numbers of germinants on the site that will contribute to the stocking targets.
- d) The regen delay milestone date is not extended beyond 2028.

# 18) Extension to Regeneration Delay Period When Standards Units with a 4 Year Regen Delay are a Minor Component of the *Cutblock*

Where a cut *cutblock*:

- a) is located in either the ESSFxv1, ESSFxv2, MSxv, SBPSdc, SBPSmc, SBPSmk or SBPSxc biogeoclimatic subzones, and
- b) contains SU's that have a 4 year regeneration delay and 7 years regeneration delay periods, and
- c) less than 25 percent (25%) of the NAR area of the cut *cutblock* has a 4 year regeneration delay period,

all standards units within the *cutblock* may be managed with a 7 year regen delay period.

## 19) Intermediate Harvest Standards

Where *harvesting* is deemed to be an intermediate *harvest*, as per clause *General Condition clause 4*)

Intermediate Harvest of this document, the applicable stocking standard in Table X may be varied such that:

- a) there shall be no regeneration objective, and
- b) the minimum basal area objective shall be set at 20m<sup>2</sup>/ha or greater.

## 20) Uneven Aged Management Required to Achieve a Result of Strategy in the FSP

Where required to achieve a *result* or *strategy* in the *FSP* any Douglas-fir leading stand may be managed for uneven aged stand structure. The stocking standard that shall apply will be the applicable even aged stocking standard, based on biogeoclimatic subzone and site series, from Table X as modified consistent with Table XXXX below.

Table XXXX Stocking Standard Conversion Table

Target Stocking from	Layer	Target	Minimum	Minimum			
Table X standards		Stocking	Stocking (P+A)				
(stems/ha)		(well-spaced/ha)					
1200	1	600	300	250			
	2	800	400	300			
	3	1000	500	400			
	4	1200	700	600			
1000	1	400	200	200			
	2	600	300	250			
	3	800	400	300			
	4	1000	500	400			
800	1	300	150	150			
	2	400	200	200			
	3	600	300	300			
	4	800	400	400			
600	1	300	150	150			
	2	400	200	200			
	3	500	300	300			
	4	600	400	400			
400	1	200	100	100			
	2	300	125	125			
	3	300	150	150			
	4	400	200	200			

BGC Zone	Subzone	Variant	Site Series	Regen Delay	Free Growing	Layer	Target Stocking	Minimum stocking (P+A)	Minimum stocking (P)	Intertree Distance (m)	Preferred Species	AcceptaBle Species	Additional Standards	Comments
ESSF	dc	2	1	4	20	ı	1200	700	600	2.0	Sx(.8) BI(.8)	PI(1.6)	Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well-spaced trees	This <i>BEC</i> is primarily in TOR as ESSF dc3
ESSF	dc	2	2	7	20	1	1000	500	400	1.6	PI(1.2)	Sx(.6) BI (.6)		
ESSF	dc	2	3	7	20	_	1000	500	400	1.6	PI(1.2) Sx (0.6) BI(.6)		Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well-spaced trees	
ESSF	dc	2	5	7	20	ı	1000	500	400	1.6	PI(1.2) Sx(.6) BI(.6)		Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well-spaced trees	
ESSF	dc	2	6	4	20	I	1200	700	600	2.0	Sx(.8) BI(.8)	PI(1.6)		
ESSF	dc	2	7	4	20	I	1200	700	600	1.6	Sx(.8) BI(.8)	PI(1.6)		
ESSF	dc	2	8	4	20	I	1000	500	400	1.6	Sx(.6) BI(.6)			
ESSF	mv	1	1	4	20	I	1200	700	600	2.0	Sx(.8) BI(.8)	PI(1.6)		This <i>BEC</i> is primarily in PG
ESSF	mv	1	2	7	20	ı	1000	500	400	1.6	PI(1.2)	BI(.6)		. ,
ESSF	mv	1	3	7	20	I	1000	500	400	1.6	PI(1.2) Sx(.6) BI(.6)	,		
ESSF	mv	1	4	7	20	I	1000	500	400	1.6	Sx(.6) BI(.6)	PI(1.2)		
ESSF	mν	1	5	4	20	I	1000	500	400	1.6	Sx(.6) BI(.6)	PI(1.2)		
				•									•	
ESSF	wc	3	1	4	20	I	1200	700	600	2.0	Sx(.8) BI(.8)	PI(1.6)		
ESSF	wc	3	2	7	20	ı	1000	500	400	2.0	PI(1.2) Sx(.6) BI(.6)			
ESSF	wc	3	3	7	20	I	600	400	300	1.6	Sx(.6) BI(.6)			
·				•									•	
ESSF	wk	1	1	4	20	I	1200	700	600	2.0	PI(2.0)Sx(1.0) BI(1.0)	-		
ESSF	wk	1	2	7	20	I	1000	500	400	2.0	PI(1.4) Sx(.8) BI(.8)	Lw(2.0)		
ESSF	wk	1	3	4	20	I	1200	700	600	2.0	PI(2.0) Sx(1.0) BI(1.0)	Lw(2.0)		
ESSF	wk	1	4	4	20	I	1200	700	600	2.0	Sx(1.0) BI(1.0)	PI(2.0)		
ESSF	wk	1	5	4	20	I	1200	700	600	2.0	Sx(1.0) BI(1.0)	PI(2.0)		
ESSF	wk	1	6	4	20	I	1000	500	400	1.6	Sx(.8) BI(.8)			
ESSF	wk	1	7	4	20	1	1000	500	400	1.6	Sx(.8) BI(.8)			
				•										
ESSF	хс		1	7	20	ı	1200	700	600	2.0	PI(1.6) Sx(.8) BI(.8)		Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well-spaced trees	This <i>BEC</i> is primarily in TOR as the ESSF xc3

ESSF	хс		2	7	20	I	600	400	300	1.6	PI(1.2) Pa (.6)	Sx(.6) BI(.6) Fd (.8) Lw (1.2)	Whitebark pine (Pa) is limited to a maximum of 50% of preferred and acceptable well-spaced trees
ESSF	хс		5	7	20	I	1000	500	400	2.0	PI(1.2) Pa (.6)	Sx(.6) Bl(.6) Fd (.8) Lw (1.2)	Whitebark pine (Pa) is limited to a maximum of 50% of preferred and acceptable well-spaced trees
ESSF	хс		6	7	20	I	1200	700	600	2.0	PI(1.6) Sx(.8) BI(.8)	Pa(.6)	Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well-spaced trees
ESSF	хс		7	4	20	I	1200	700	600	2.0	Sx(.6) BI(.6)	PI(1.2)	Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well-spaced trees
ESSF	хс		8	4	20	I	1200	700	600	1.6	Sx(.6) BI(.6)	PI(1.2)	Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well-spaced trees
ESSF	xv	1	1	7	20	I	1200	700	600	2.0	PI(1.0) Sx(.8) BI(.8)	Pa(0.8)	Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well-spaced trees
ESSF	xv	1	2	7	20	ı	800	500	400	1.6	PI(.8) Pa(.6)	BI(.6)	
ESSF	xv	1	3	7	20	ı	800	500	400	2.0	PI(.8) Pa(.6)		
ESSF	χV	1	4	7	20	I	1000	600	500	2.0	PI(.8) Pa(.6)	Sx(.6) BI(.6)	
ESSF	ΧV	1	5	7	20	I	1200	700	600	2.0	PI(1.0) Pa(.8)	Sx(.8) BI(.8)	
ESSF	ΧV	1	6	7	20	I	1200	700	600	2.0	PI(1.0) Sx(.8)	BI(.8)	
ESSF	xv	1	7	4	20	I	1200	700	600	2.0	PI(1.0) Sx(.8) BI(.8)		Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well-spaced trees
ESSF	xv	1	8	4	20	I	600	400	300	1.6	PI(.8) Sx(.6) BI(.6)		Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well-spaced trees
ESSF	ΧV	1	9	4	20	-	800	500	400	1.6	Sx(.6) BI(.6)	PI(.8)	
ESSF	xv	2	1	7	20	I	1200	700	600	2.0	PI(1.0) Sx(.8)	Pa(.8) BI(.8)	
ESSF	xv	2	2	7	20	I	800	500	400	1.6	PI(.8) Pa(.6)	BI(.6)	
ESSF	χV	2	3	7	20	I	600	400	300	2.0	PI(.8)	Pa(.6)	
ESSF	xv	2	4	7	20	I	1200	700	600	2.0	PI(1.0)	BI(.8) Pa(.8)	
ESSF	xv	2	5	7	20	I	1200	700	600	2.0	PI(1.0) Sx(.8)	BI(.8) Pa(.8)	
ESSF	ΧV	2	6	7	20	I	1200	700	600	2.0	PI(1.0) Sx(.8)	BI(.8)	
ESSF	xv	2	7	4	20	I	1200	700	600	2.0	PI(1.0) Sx(.8)	BI(.8)	
ESSF	xv	2	8	4	20	I	600	400	300	1.6	Sx(.6) BI(.6)	PI(.8)	

ESSF	xv	2	9	4	20	I	600	400	300	1.6	Sx(.6) BI(.6)	PI(.8)	Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well-spaced trees	
ESSF	xv	2	10	4	20	I	600	400	300	1.6	Sx(.6) BI(.6)	PI(.8)	Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well-spaced trees	
ICH	dk		1	4	20	I	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)	BI(1.0) Cw(1.0) Pw(2.0) Lw(2.0)		
ICH	dk		2	7	20	I	1000	500	400	1.6	Fd(1.0) Pl(1.4)	Cw(.8) Sx(.8)		
ICH	dk		3	7	20	1	1200	700	600	2.0	Fd(1.4) PI(2.0)	Cw(1.0) Sx(1.0)		
ICH	dk		4	4	20	I	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)	Cw(1.0) Bl(1.0) Pw(2.0) Lw(2.0)		
ICH	dk		5	4	20	1	1200	700	600	2.0	Fd(1.4) PI(2.0) Sx(1.0)	Cw(1.0) Bl(1.0) Pw(2.0)		
ICH	dk		6	4	20	- 1	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)	Cw(1.0) Bl(1.0) Pw(2.0)		
ICH	dk		7	4	20	1	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)	BI(1.0) Pw(2.0)		
ICH	dk		8	4	20	1	1000	500	400	1.6	Fd(1.0) Sx(.8) Bl(.8)	PI(1.4) Cw(.8) Pw(1.4)		
ICH	dk		9	4	20	1	1000	500	400	1.6	Sx(.8)	PI(1.4) BI(.8)		
					•	•								
ICH	mk	3	1	4	20	I	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)	BI(1.0) Cw(1.0) Lw(2.0) Pw(2.0)		
ICH	mk	3	2	7	20	1	1000	500	400	2.0	Fd(1.0) PI(1.4)	Sx(.8), Lw(1.4)		
ICH	mk	3	3	7	20	1	1000	500	400	2.0	Fd(1.0) Pl(1.4)	Sx(.8) Cw(.8) Lw(1.4)		
ICH	mk	3	4	4	20	I	1200	700	600	2.0	Fd(1.4) Sx(1.0)	BI(1.0) Cw(1.0) PI(2.0) Pw(2.0)		
ICH	mk	3	5	4	20	1	1200	700	600	2.0	Sx(1.0) PI(2.0)	BI(1.0) Cw(1.0) Pw(2.0)		
ICH	mk	3	6	4	20	I	1200	700	600	1.6	Fd(1.4) Sx(1.0) Cw(1.0)	BI(1.0) PI(2.0) Pw(2.0)		
ICH	mk	3	7	4	20	1	1000	500	400	1.6	Sx(.8) Cw(.8)	Pw(1.4) Bl(.8) Pl(1.4)		
ICH	mw	3	1	4	20	I	1200	700	600	2.0	Fd(1.4) Sx(1.0) Cw(1.0) Pw(2.0)	PI(2.0) Hw(1.0) BI(1.0) Lw(2.0)		This <i>BEC</i> is primarily in TOR
ICH	mw	3	2	4	20	1	1000	500	400	1.6	Fd(1.0) Pl(1.4)	Pw(1.4) Py(1.4) Lw(1.4)		
ICH	mw	3	3	7	20	I	1000	500	400	2.0	Fd(1.0) Pl(1.4)	Pw(1.4) Py(1.4) Lw(1.4)		
ICH	mw	3	4	7	20	I	1200	700	600	2.0	Fd(1.4) Pl(2.0) Pw(2.0) Cw(1.0)	Lw(2.0) Sx(1.0)		
ICH	mw	3	5	7	20	I	1200	700	600	2.0	Fd(1.4) Pl(2.0) Pw(2.0) Cw(1.0)	Lw(2.0) Sx(1.0)		
ICH	mw	3	6	4	20	I	1200	700	600	2.0	Cw(1.0) Hw(1.0) Sx(1.0)	Fd(1.4) Pw(2.0) Bl(1.0) Lw(2.0)	Western Hemlock (Hw) is limited to a maximum of 50% of preferred and acceptable well-spaced trees	

ICH	mw	3	7	4	20	I	1200	700	600	2.0	Cw(1.0) Hw(1.0) Sx(1.0)	Fd(1.4) Pw(2.0) BI(1.0) Lw(2.0)	Western Hemlock (Hw) is limited to a maximum of 50% of preferred and acceptable well-spaced trees	
ICH	mw	3	8	4	20	I	1000	500	400	1.6	Cw(1.0) Hw(1.0) Sx(08)	BI(.8)		
ICH	wk	2	1	4	20	I	1200	700	600	2.0	Sx(1.0) PI(2.0) Fd(1.4)	BI(1.0) Cw(1.0) Hw(1.0) Pw(2.0)		
ICH	wk	2	2	7	20	1	1000	500	400	1.6	Fd(1.0) Pl(1.4)	BI(.8) Hw(.8)		
ICH	wk	2	3	7	20	1	1000	500	400	2.0	Fd(1.0) Pl(1.4)	BI(.8) Lw(1.4)		
ICH	wk	2	4	4	20	I	1200	700	600	2.0	Fd(1.4) Pl(2.0)	Hw(1.0) Cw(1.0) Lw(2.0)		
ICH	wk	2	5	4	20	- 1	1200	700	600	2.0	PI(2.0) Sx(1.0)	BI(1.0) Cw(1.0) Pw(2.0)		
ICH	wk	2	6	4	20	ı	1200	700	600	2.0	PI(2.0) Sx(1.0)	BI(1.0) Hw(1.0) Pw(2.0)		
ICH	wk	2	7	4	20	_	1200	700	600	2.0	Sx(1.0) Fd(1.4) Cw(1.0)	BI(1.0) Hw(1.0) PI(1.4)		
ICH	wk	2	8	4	20	ı	1000	500	400	1.6	Sx(.8) Cw(.8)	BI(.8)		
ICH	wk	4	1	4	20	I	1200	700	600	2.0	Sx(1.0) PI(2.0) Fd(1.4)	BI(1.0) Cw(1.0) Hw(1.0) Pw(2.0)		
ICH	wk	4	2	7	20	1	1000	500	400	2.0	Fd(1.0) Pl(1.4)	BI(.8) Hw(.8)		
ICH	wk	4	3	7	20	1	1000	500	400	2.0	Fd(1.0) Pl(1.4)	Hw(1.0) Lw(1.4) Sx(1.0)		
ICH	wk	4	4	4	20	1	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)	BI(1.0) Hw(1.0)		
ICH	wk	4	5	4	20	- 1	1200	700	600	2.0	Fd(1.4) Pl(2.0)	BI(1.0) Hw(1.0) Lw(2.0)		
ICH	wk	4	6	4	20	1	1200	700	600	2.0	PI(2.0) Sx(1.0)	BI(1.0) Pw(2.0)		
ICH	wk	4	7	4	20	_	1200	700	600	2.0	Sx(1.0) Fd(1.4) Cw(1.0)	Hw(1.0) Bl(1.0) Pl(2.0) Pw(2.0)		
ICH	wk	4	8	4	20	I	1000	500	400	1.6	Sx(.8) Cw(.8)	BI(.8) PI(1.4)		
L			I	1					<u>I</u>					
IDF	dk	1	1	7	20	I	1000	500	400	2.0	Fd(.8) Pl(1.0)	Sx(.6) Py(.6) Lw(1.0)		This <i>BEC</i> is primarily in TOR
IDF	dk	1	1	7	20	4	1000	500	400	2.0	Fd(.4)	Sx(.6) PI(1.0) Py(.6) Lw(1.0)		Ask Mike if the IDF dk2 occurs in the Cariboo or is it now IDFdk3
IDF	dk	1	1	7	20	3	800	400	300	2.0	Fd	Sx Pl Py Lw		
IDF	dk	1	1	7	20	2	600	300	250	2.0	Fd	Sx PI Py Lw		
IDF	dk	1	1	7	20	1	400	200	200	0.0	Fd	Sx PI Py Lw		
IDF	dk	1	2	7	20	I	600	400	300	2.0	Fd(.8) Py(.6)	PI(1.0)		
IDF	dk	1	2	7	20	4	600	400	400	2.0	Fd(.4)	PI(1.0) Py(.6)		
IDF	dk	1	2	7	20	3	500	300	300	2.0	Fd	PI Py		
IDF	dk	1	2	7	20	2	400	200	200	2.0	Fd	Pl Py		
IDF	dk	1	2	7	20	1	300	150	150	0.0	Fd	PI Py		
IDF	dk	1	3	7	20	- 1	600	400	300	2.0	Fd(.8) PL(1.0)	Py(.6)		

IDF	dk	1	3	7	20	4	600	400	400	2.0	Fd(.4)	PI(1.0) Py(.6)	
IDF	dk	1	3	7	20	3	500	300	300	2.0	Fd	Pl Py	
IDF	dk	1	3	7	20	2	400	200	200	2.0	Fd	Pl Py	
IDF	dk	1	3	7	20	1	300	150	150	0.0	Fd	Pl Py	
IDF	dk	1	4	7	20	I	1000	500	400	2.0	Fd(.8) Pl(1.0)	Sx(.6) Py(.6) Lw(1.0)	
IDF	dk	1	4	7	20	4	1000	500	400	2.0	Fd(.4)	Sx(.6) PI(1.0) Py(.6) Lw(1.0)	
IDF	dk	1	4	7	20	3	800	400	300	2.0	Fd	Sx Pl Py Lw	
IDF	dk	1	4	7	20	2	600	300	250	2.0	Fd	Sx Pl Py Lw	
IDF	dk	1	4	7	20	1	400	200	200	0.0	Fd	Sx Pl Py Lw	
IDF	dk	1	5	7	20	ı	1000	500	400	2.0	Fd(.8) Sx(.6)	Lw(1.0) PI(1.0) BI(.6)	
IDF	dk	1	5	7	20	4	1000	500	400	2.0	Fd(.4) Sx(0.6)	PI(1.0) Lw(1.0) BI(.6)	
IDF	dk	1	5	7	20	3	800	400	300	2.0	Fd Sx	PI Lw BI	
IDF	dk	1	5	7	20	2	600	300	250	2.0	Fd Sx	PI Lw BI	
IDF	dk	1	5	7	20	1	400	200	200	0.0	Fd Sx	PI Lw BI	
IDF	dk	1	6	4	20	I	1000	500	400	2.0	PI(1.0) Sx(.6)	BI(.6)	
												· ·	
IDF	dk	3	1	7	20	1	1200	700	600	2.0	Fd(1.0) Pl(1.4)	Sx(.8) Py(1.0) Lw(2.0)	
IDF	dk	3	1	7	20	4	1200	700	600	2.0	Fd(.4)	Sx(.8) PI(1.0) Py(1.0)	
IDF	dk	3	1	7	20	3	1000	500	400	2.0	Fd	Sx Pl Py	
IDF	dk	3	1	7	20	2	800	400	300	2.0	Fd	Sx Pl Py	
IDF	dk	3	1	7	20	1	600	300	250	0.0	Fd	Sx Pl Py	
IDF	dk	3	2	7	20	I	800	500	400	2.0	Fd(.8) Pl(1.0)	Py(.8)	
IDF	dk	3	2	7	20	4	800	400	400	2.0	Fd(.4)	PI(1.0) Py(.8)	
IDF	dk	3	2	7	20	3	600	300	300	2.0	Fd	Pl Py	
IDF	dk	3	2	7	20	2	400	200	200	2.0	Fd	Pl Py	
IDF	dk	3	2	7	20	1	300	150	150	0.0	Fd	Pl Py	
IDF	dk	3	3	7	20	I	800	500	400	2.0	Fd(.8) Pl(1.0)	Py(.8)	
IDF	dk	3	3	7	20	4	800	400	400	2.0	Fd(.4)	PI(1.0) Py(.8)	
IDF	dk	3	3	7	20	3	600	300	300	2.0	Fd	Pl Py	
IDF	dk	3	3	7	20	2	400	200	200	2.0	Fd	Pl Py	
IDF	dk	3	3	7	20	1	300	150	150	0.0	Fd	Pl Py	
IDF	dk	3	4	7	20	ı	1000	500	400	2.0	Fd(.8) Pl(1.0)	Py(1.0)	
IDF	dk	3	4	7	20	4	1000	500	400	2.0	Fd(.4)	PI(1.0) Py(1.0)	
IDF	dk	3	4	7	20	3	800	400	300	2.0	Fd	Pl Py	
IDF	dk	3	4	7	20	2	600	300	250	2.0	Fd	PI Py	
IDF	dk	3	4	7	20	1	400	200	200	0.0	Fd	PI Py	
IDF	dk	3	5	7	20	I	1200	700	600	2.0	Fd(1.0) Pl(1.4)	Py(.8)	
IDF	dk	3	5	7	20	4	1200	700	600	2.0	Fd(.4)	PI(1.4) Py(.8)	
IDF	dk	3	5	7	20	3	1000	500	400	2.0	Fd	PI Py	
IDF	dk	3	5	7	20	2	800	400	300	2.0	Fd	PI Py	
IDF	dk	3	5	7	20	1	600	300	250	0.0	Fd	PI Py	
IDF	dk	3	6	7	20	1	1200	700	600	2.0	Fd(1.0) Pl(1.4)	Py(.8)	

IDF	dk	3	6	7	20	4	1200	700	600	2.0	Fd(.4)	PI(1.4) Py(.8)	
IDF	dk	3	6	7	20	3	1000	500	400	2.0	Fd	Pl Py	
IDF	dk	3	6	7	20	2	800	400	300	2.0	Fd	Pl Py	
IDF	dk	3	6	7	20	1	600	300	250	0.0	Fd	Pl Py	
IDF	dk	3	7	4	20	1	1200	700	600	2.0	Fd(1.0) Pl(1.4) Sx(.8)	,	+
IDF	dk	3	7	7	20	4	1200	700	600	2.0	Fd(.4) Sx(.8)	PI(1.4)	+
IDF	dk	3	7	7	20	3	1000	500	400	2.0	Fd Sx	PI	
IDF	dk	3	7	7	20	2	800	400	300	2.0	Fd Sx	PI	
IDF	dk	3	7	7	20	1	600	300	250	0.0	Fd Sx	PI	
IDF	dk	3	8	4	20	1	1200	700	600	2.0	Fd(1.0) Pl(1.4) Sx(.8)		
IDF	dk	3	8	7	20	4	1200	700	600	2.0	Fd(.4) Sx(.8)	PI(1.4)	
IDF	dk	3	8	7	20	3	1000	500	400	2.0	Fd Sx	PI	
IDF	dk	3	8	7	20	2	800	400	300	2.0	Fd Sx	PI	
IDF	dk	3	8	7	20	1	600	300	250	0.0	Fd Sx	Pl	+
IDF	dk	3	9	4	20	ı	1000	500	400	1.6	Sx(.6)	PI(1.0)	
		J		•				230	.30		()	(=.0)	
IDF	dk	4	1	7	20	ı	1200	700	600	2.0	Fd(1.0) Pl(1.0)	Sx(.8) Py (1.0) Lw(1.0)	
IDF	dk	4	1	7	20	4	1200	700	600	2.0			+
IDF	dk	4	1	7	20	3	1000	500	400	2.0	Fd(.4)	PI(1.0) Sx(.8) Py(1.0) PI Sx Py	+
IDF	dk	4	1	7	20	2	800	400	300	2.0	Fd	PI Sx Py	+
IDF	dk	4	1	7	20		600	300	250	0.0	Fd	· · · · · · · · · · · · · · · · · · ·	+
	dk	-		7		1			400			PI Sx Py	
IDF IDF	dk	4	2	7	20 20	4	800 800	500 400	400	2.0	Fd(.8) Pl(1.0)	Py(1.0)	
IDF	dk	-		7	20		600	300	300	2.0	Fd(.4)	PI(1.0) Py(1.0)	
IDF	dk	4	2	7	20	3	400	200	200	2.0	Fd	PI Py PI Py	
	dk	-		7	20	2	300		150		Fd	PI Py	
IDF		4	2	-		1		150	400	0.0		· · · · · · · · · · · · · · · · · · ·	
IDF	dk	4	3	7	20	1	800	500		2.0	Fd(.8)	Py(1.0)	
IDF	dk	4	3	7	20	4	800	400	400	2.0	Fd(.4)	Py(1.0)	
IDF	dk	4	3	7	20	3	600	300	300	2.0	Fd	Py	
IDF	dk	4	3	,	20	2	400	200	200	2.0	Fd	Py	_
IDF	dk	4	3	7	20	1	300	150	150	0.0	Fd (8) Pl(1 0)	Py (1.0)	
IDF	dk	4	4	7	20	1	1000	500	400	2.0	Fd(.8) Pl(1.0)	Py(1.0)	
IDF	dk	4	4	7	20	4	1000	500	400	2.0	Fd(.4)	PI(1.0) Py(1.0)	
IDF	dk	4	4	7	20	3	800	400	300	2.0	Fd	PI Py	
IDF	dk	4	4	7	20	2	600	300	200	2.0	Fd	PI Py	
IDF	dk	4	4	7	20	1	400	200	200	0.0	Fd 5 1/4 0) 81/4 0)	PI Py	_
IDF	dk	4	5	7	20	1	1200	700	600	2.0	Fd(1.0) Pl(1.0)	Py(1.0)	
IDF	dk	4	5	7	20	4	1200	700	600	2.0	Fd(.4)	PI(1.0) Py(1.0)	_
IDF	dk 	4	5	7	20	3	1000	500	400	2.0	Fd	PI Py	_
IDF	dk	4	5	7	20	2	800	400	300	2.0	Fd	PI Py	
IDF	dk	4	5	7	20	1	600	300	250	0.0	Fd	PI Py	
IDF	dk	4	6	7	20	l	1000	500	400	2.0	PI(1.0)	Sx(.6) Py(1.0)	
IDF	dk	4	7	7	20		1200	700	600	2.0	Fd(1.0) Pl(1.0)		

IDF	dk	4	7	7	20	4	1200	700	600	2.0	Fd(.4)	PI(1.0)		
IDF	dk	4	7	7	20	3	1000	500	400	2.0	Fd	PI		
IDF	dk	4	7	7	20	2	800	400	300	2.0	Fd	PI		
IDF	dk	4	7	7	20	1	600	300	250	0.0	Fd	PI		
IDF	dk	4	8	4	20	ı	1000	500	400	2.0	PI(1.4) Sx(.6)			
IDF	dk	4	9	4	20	I	1200	700	600	2.0	PI(1.4) Fd(1.0) Sx(.8)	21/4 0)		
IDF	dk	4	9	7	20	4	1200	700	600	2.0	Fd(.4) Sx(.8)	PI(1.0)		
IDF	dk	4	9	7	20	3	1000	500	400	2.0	Fd Sx	Pl		
IDF IDF	dk dk	4	9	7	20 20	2	800 600	400 300	300 250	2.0 0.0	Fd Sx Fd Sx	PI PI		
IDF	dk	4	10	4	20	I	1000	500	400	1.6	Sx(.6)	PI(1.0)		
וטו	un	7	10	7	20		1000	300	+00	1.0	JA(.0)	1 1(1.0)	<u> </u>	
											Fd(1.0) Cw(.8)			This <i>BEC</i> is primarily in
IDF	mw	2	1	4	20		1200	700	600	2.0	Pw(1.6)	Sx(.8) PI(1.6) Lw(1.6)		TOR
IDF	mw	2	2	4	20	I	600	400	300	1.6	Fd(.8) Pl(1.2)	Py(1.2) Pw(1.2)		
IDF	mw	2	3	7	20		1000	500	400	1.6	Fd(1.0)	Lw(1.6) Pw(1.6) Py(1.6)		
151	11100		J	,	20		1000	500	100	1.0	. 3(1.0)	PI(1.6)		

IDF	mw	2	4	4	20	1	1200	700	600	2.0	Fd(1.0) Sx(.8) Cw(0.8)	Pw(1.6) Lw(1.6) Hw	
	11100					<u>'</u>						(1.6)	
IDF	mw	2	5	4	20	I	400	200	150	1.6	Cw (.6) Sx(.6) Hw(.6)	BI(.6)	
		ı			ı		1				1		 
IDF	xm		<b>1</b> a	7	20	I	1200	700	600	2.0	Fd(.8)	Py(.8)	Topic Phase
IDF	xm		1a	7	20	4	1200	700	600	2.0	Fd(.4)	Py(.8)	
IDF	xm		1a	7	20	3	1000	500	400	2.0	Fd	Ру	
IDF	xm		1a	7	20	2	800	400	300	2.0	Fd	Ру	
IDF	xm		1a	7	20	1	600	300	250	0.0	Fd	Ру	
IDF	xm		1b	7	20	I	1200	700	600	2.0	Fd(.8) Pl(.8)	Py(.8)	Cold Phase
IDF	xm		1b	7	20	4	1200	700	600	2.0	Fd(.4)	PI(.8) Py(.8)	
IDF	xm		1b	7	20	3	1000	500	400	2.0	Fd	PI Py	
IDF	xm		1b	7	20	2	800	400	300	2.0	Fd	PI Py	
IDF	xm		1b	7	20	1	600	300	250	0.0	Fd	PI Py	
IDF	xm		2	7	20	I	1000	500	400	2.0	Fd(.6)	Py(.8)	
IDF	xm		2	7	20	4	1000	500	400	2.0	Fd(.4)		
IDF	xm		2	7	20	3	800	400	300	2.0	Fd		
IDF	xm		2	7	20	2	600	300	250	2.0	Fd		
IDF	xm		2	7	20	1	400	200	200	0.0	Fd		
IDF	xm		3	7	20	ı	1000	500	400	2.0	Fd(.6) Pl(.8)	Py(.8)	
IDF	xm		3	7	20	4	1000	500	400	2.0	Fd(.4)	PI(.8)	
IDF	xm		3	7	20	3	800	400	300	2.0	Fd	PI	
IDF	xm		3	7	20	2	600	300	250	2.0	Fd	PI	
IDF	xm		3	7	20	1	400	200	200	0.0	Fd	PI	
IDF	xm		4	7	20	ı	1000	500	400	2.0	Fd(.6)	Py(.8)	
IDF	xm		4	7	20	4	1000	500	400	2.0	Fd(.4)		
IDF	xm		4	7	20	3	800	400	300	2.0	Fd		
IDF	xm		4	7	20	2	600	300	250	2.0	Fd		
IDF	xm		4	7	20	1	400	200	200	0.0	Fd		
IDF	xm		5	7	20	I	1200	700	600	2.0	Fd(.8)	Py(.8)	
IDF	xm		5	7	20	4	1200	700	600	2.0	Fd(.4)		
IDF	xm		5	7	20	3	1000	500	400	2.0	Fd		
IDF	xm		5	7	20	2	800	400	300	2.0	Fd		
IDF	xm		5	7	20	1	600	300	250	0.0	Fd		
IDF	xm		6	7	20	ı	1200	700	600	2.0	Fd(.8)	PI(1.0) Py(1.0) Lw(1.0)	
IDF	xm		6	7	20	4	1200	700	600	2.0	Fd(.8)		_
IDF	xm		6	7	20	3	1000	500	400	2.0	Fd		
IDF	xm		6	7	20	2	800	400	300	2.0	Fd		_
IDF	xm		6	7	20	1	600	300	250	0.0	Fd		_
IDF	xm		7	7	20	ı	1200	700	600	2.0	Fd(.8)	PI(1.0)	_
IDF	xm		7	7	20	4	1200	700	600	2.0	Fd(.4)		
IDF	xm		7	7	20	3	1000	500	400	2.0	Fd		+
IDF	xm		7	7	20	2	800	400	300	2.0	Fd		+

IDF	xm	7	7	20	1	600	300	250	0.0	Fd		I	1
IDF	xm	8	4	20	1	1200	700	600	1.6	Fd(.8) Sx(.8)	PI(.8)		
IDF	xm	8	7	20	4	1200	700	600	1.6	Fd(.4) Sx(.8)	PI(.8)		
IDF	xm	8	7	20	3	1000	500	400	1.6	Fd Sx	PI		
IDF	xm	8	7	20	2	800	400	300	1.6	Fd Sx	PI		
IDF	xm	8	7	20	1	600	300	250	0.0	Fd Sx	PI		
IDF	xm	9	4	20	1	1000	500	400	1.6	Sx(.6) PI(.8)			
	AIII		•		•	1000	300	100	1.0	SA(10) 1 (10)			
IDF	xw	1	7	20		1200	700	600	2.0	Fd(.8) Py(.8)			
IDF		1	7	20	4	1200	700	600	2.0	Fd(.4)	Dv/O 9)		
IDF	XW	1	7	20	3	1000	500	400	2.0	Fd(.4)	Py(0.8)		
IDF	XW	1	7	20	2	800	400	300	2.0	Fd	Py Py		
IDF	XW	1	7	20	1	600	300	250	0.0	Fd			
IDF	XW	2	7	20	1	600	400	300	2.0		Py		
IDF	XW		7	20	1	600	400	400	2.0	Fd(.6) Py(.6)	D. (O. O.)		
	XW	2			4					Fd(.4)	Py(0.8)		
IDF	XW	2	7	20	3	500	300	300	2.0	Fd	Py		
IDF	XW	2	7	20	2	400	200	200	2.0	Fd	Py		
IDF	XW	2	7	20	1	300	150	150	0.0	Fd Fd (S) F (S)	Ру		
IDF	XW	3	7	20	1	600	400	300	2.0	Fd(.6) Py(.6)	- (2.2)		
IDF	XW	3	7	20	4	600	400	400	2.0	Fd(.4)	Py(0.8)		
IDF	XW	3	7	20	3	500	300	300	2.0	Fd	Py		
IDF	XW	3	7	20	2	400	200	200	2.0	Fd	Py		
IDF	XW	3	7	20	1	300	150	150	0.0	Fd	Ру		
IDF	XW	4	7	20	1	800	500	400	2.0	Fd(.6) Py(.6)			
IDF	XW	4	7	20	4	800	400	400	2.0	Fd(.4)	Py(1.0)		
IDF	XW	4	7	20	3	600	300	300	2.0	Fd	Ру		
IDF	XW	4	7	20	2	400	200	200	2.0	Fd	Ру		
IDF	XW	4	7	20	1	300	150	150	0.0	Fd	Ру		
IDF	XW	5	7	20	1	1200	700	600	2.0	Fd(.8)			
IDF	XW	5	7	20	4	1200	700	600	2.0	Fd(.4)			
IDF	XW	5	7	20	3	1000	500	400	2.0	Fd			
IDF	xw	5	7	20	2	800	400	300	2.0	Fd			
IDF	XW	5	7	20	1	600	300	250	0.0	Fd			
IDF	xw	6	4	20	I	1200	700	600	2.0	Fd(.6) Sx(.6)			
IDF	xw	6	7	20	4	1200	700	600	2.0	Fd(.4) Sx(0.6)			
IDF	xw	 6	7	20	3	1000	500	400	2.0	Fd Sx			
IDF	xw	6	7	20	2	800	400	300	2.0	Fd Sx			
IDF	xw	6	7	20	1	600	300	250	0.0	Fd Sx			
IDF	xw	7	4	20	I	1000	500	400	1.6	Fd(.6) Sx(.6)			
IDF	xw	7	7	20	4	1000	500	400	2.0	Fd(.4) Sx(0.6)			
IDF	xw	7	7	20	3	800	400	300	2.0	Fd Sx			
IDF	xw	7	7	20	2	600	300	250	2.0	Fd Sx			
IDF	xw	7	7	20	1	400	200	200	0.0	Fd Sx			

MS	dc	2	1	7	20	1	1200	700	600	2.0	PI(1.0) Sx(.8)	Fd(.8) Bl(.8)		
MS	dc	2	2	7	20	1	1000	500	400	1.6	Fd(.6) PI(.8)	BI(.6) Pa(.6)		
MS	dc	2	3	7	20	1	1000	500	400	2.0	Fd(.6) PI(.8)	BI(.6) Pa(.6)		
MS	dc	2	4	7	20	1	1200	700	600	2.0	PI(1.0) Sx(.8)	BI(.8)		
MS	dc	2	5	7	20	1	1200	700	600	2.0	PI(1.0) Sx(.8)	BI(.8)		
MS	dc	2	6	4	20	ı	1200	700	600	2.0	PI(1.0) Sx(.8)	BI(.8)		
MS	dc	2	7	4	20	1	1200	700	600	2.0	Sx(.8) BI(.8)	PI(1.0)		
MS	dc	2	8	4	20	1	1000	500	400	1.6	Sx(.6)	BI(.6) PI(.8)		
<u> </u>			I	<u>I</u>	I	ı							I	
MS	dv		1	7	20	I	1200	700	600	2.0	PI(1.0) Sx(.8)	BI(.8)		
MS	dv		2	7	20	ı	1000	500	400	2.0	PI(.8)			
MS	dv		3	7	20	ı	1200	700	600	2.0	PI(1.0)	Sx(.8) BI(.8)		
MS	dv		4	7	20	1	1200	700	600	2.0	PI(1.0)	Sx(.8) BI(.8)		
MS	dv		5	7	20	ı	1200	700	600	2.0	PI(1.0)	Sx(.8) BI(.8)		
MS	dv		6	7	20	I	1200	700	600	2.0	PI(1.0) Sx(.8)	BI(.8)		
MS	dv		7	7	20	1	1200	700	600	2.0	PI(1.0) Sx(.8)	BI(.8)		
MS	dv		8	4	20	ı	1000	500	400	1.6	Sx(.6) PI(.8)	BI(.6)		
MS	dv		9	4	20	ı	1000	500	400	1.6	Sx(.6)	PI(.8) BI(.6)		
MS	xk		1	7	20	I	1200	700	600	2.0	Fd(.8) Pl(1.4) Sx(.8)	BI(.8) Lw(1.4)		This <i>BEC</i> is primarily in TOR
MS	xk		1	7	20	4	1200	700	600	2.0	Fd(.8) Pl(1.4) Sx(.8)	BI(.8) Lw(1.4)		
MS	xk		1	7	20	3	1000	500	400	2.0	Fd Pl Sx	BI Lw		
MS	xk		1	7	20	2	800	400	300	2.0	Fd Pl Sx	BI Lw		
MS	xk		1	7	20	1	600	300	250	0.0	Fd Pl Sx	BI Lw		
MS	xk		2	7	20	1	1000	500	400	1.6	Fd(.6) Pl(1.0)	Sx(.6) BI(.6)		
MS	xk		2	7	20	4	1000	500	400	2.0	Fd(.6) Pl(1.0)	Sx(.6) BI(.6)		
MS	xk		2	7	20	3	800	400	300	2.0	Fd Pl	Sx Bl		
MS	xk		2	7	20	2	600	300	250	2.0	Fd Pl	Sx Bl		
MS	xk		2	7	20	1	400	200	200	0.0	Fd Pl	Sx Bl		
MS	xk		5a	7	20	I	1000	500	400	2.0	Fd(.6) PI(1.0)	Py(1.0) Lw(1.0)		Steep warm slopes
MS	xk		5a	7	20	4	1000	500	400	2.0	Fd(.6) PI(1.0)	Py(1.0) Lw(1.0)		
MS	xk		5a	7	20	3	800	400	300	2.0	Fd Pl	Py Lw		
MS	xk		5a	7	20	2	600	300	250	2.0	Fd Pl	Py Lw		
MS	xk		5a	7	20	1	400	200	200	0.0	Fd Pl	Py Lw		
MS	xk		5b	7	20	1	1000	500	400	2.0	PI(1.0)	Sx(.6) Lw(1.0) Fd(.6)	Doloom (DI) is limited to	Cold air drainages
MS	xk		6	7	20	I	1200	700	600	2.0	PI(1.4) Sx(.8) BI(.8)	Fd(.8)	Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well-spaced trees	
MS	xk		8	4	20	I	1200	700	600	2.0	PI(1.4) Sx(.8)	BI(.8)		
MS	xk		9	4	20	1	1000	500	400	1.6	Sx(.6)	BI(.6) PL(1.0)		

MS	XV	1	7	20	1	1200	700	600	2.0	PI(1.0) Sx(.8)	BI(.8)		
MS	XV	2	7	20	1	1000	500	400	2.0	PI(.8)	51(10)		
MS	XV	3	7	20	i	1000	500	400	2.0	PI(.8)			
MS	XV	4	7	20	1	1200	700	600	2.0	PI(1.0) Sx(.8)	BI(.8)		
MS	XV	5	7	20	i	1200	700	600	2.0	PI(1.0) Sx(.8)	BI(.8)		
MS	XV	6	7	20	1	1200	700	600	2.0	PI(1.0) Sx(.8)	BI(.8)		
MS	XV	7	4	20		1000	500	400	2.0	PI(.8) Sx(.6)	BI(.6)		
MS	XV	8	4	20		1000	500	400	1.6	Sx(.6)	PI(.8) BI(.6)		
MS	XV	9	4	20	1	400	200	150	1.6	Sx(.6)	BI(.6) PI(.8)		
												L	
SBPS	dc	1	7	20	1	1200	700	600	2.0	PI(1.4) Sx(.8)	Fd(.8) SB(.8) Lw(1.4)		
SBPS	dc	2	7	20	1	1000	400	300	2.0	PI(1.0)	Fd(.8)		
			_								SB(.8) Sx(.8) Fd(.8)		
SBPS	dc	3	7	20		1200	700	600	2.0	PI(1.4)	Lw(1.4)		
SBPS	dc	4	7	20	ı	1200	700	600	2.0	PI(1.4) Sx(.8)	SB(.8)		
SBPS	dc	5	4	20	1	1000	500	400	2.0	PI(1.0) Sx(.6)	SB(.6)		
SBPS	dc	6	4	20	1	1000	500	400	1.6	PI(1.0) Sx(.6)	SB(.6)		
SBPS	dc	7	4	20	I	400	200	150	1.6	PI(1.0) Sx(.6)	SB(.6)		
SBPS	dc	8	4	20	I	1000	500	400	1.6	Sx(.6)	PI(1.0) SB(.6)		
	•		•	•	•								
SBPS	mc	1	7	20	- 1	1200	700	600	2.0	PI(1.6)	Sx(.8) SB(.8)		
SBPS	mc	2	7	20	ı	1000	500	400	2.0	PI(1.2)	Sx(.6) SB(.6)		
SBPS	mc	3	7	20	I	1200	700	600	2.0	PI(1.6)	Sx(.8) SB(.8)		
SBPS	mc	4	4	20	ı	1000	500	400	1.6	PI(1.2) Sx(.6)	SB(.6)		
SBPS	mc	5	4	20	1	1000	500	400	2.0	Sx(.6)	PI(1.2) SB(.6)		
SBPS	mc	6	4	20	1	1000	500	400	1.6	PI(1.2) Sx(.6)	Sb(.6)		
SBPS	mc	7	4	20	- 1	400	200	150	1.6	PI(1.2) Sx(.6)	Sb(.6)		
SBPS	mk	1	7	20	I	1200	700	600	2.0	Fd(1.0) Pl(1.6) Sx(.8)	Lw(1.6)		
SBPS	mk	2	7	20	ı	1000	500	400	2.0	Fd(.8) Pl(1.2)	Sx(.6) Py(1.2)		
SBPS	mk	3	7	20	1	1200	700	600	2.0	Fd(1.0) Pl(1.6)			
SBPS	mk	4	7	20	1	1200	700	600	2.0	Fd(1.0) Pl(1.6) Sx(.8)	Lw(1.6)		
SBPS	mk	5	7	20	- 1	1200	700	600	2.0	Fd(1.0) Pl(1.6) Sx(.8)	Lw(1.6)		
SBPS	mk	6	4	20	I	1200	700	600	2.0	PI(1.6) Sx(.8)			
SBPS	mk	7	4	20	- 1	1000	500	400	1.6	Sx(.6)	BI(.6) PI(1.2)		
SBPS	mk	8	4	20	1	400	200	150	1.6	PI(1.2) Sx(.6)	Sb(.6)		-
		•										•	
SBPS	хс	1	7	20	I	1200	700	600	2.0	PI(1.0)	Fd(.6) Sx(.6) Lw(1.4)		
SBPS	хс	2a	7	20	I	1000	500	400	1.6	Fd(.6) Pl(1.0)			
SBPS	хс	2b	7	20	i	1000	500	400	1.6	PI(1.0)			
3013													
SBPS SBPS SBPS SBPS SBPS SBPS SBPS SBPS	mk mk mk mk mk mk mk mk xc xc	7 1 2 3 4 5 6 7 8	7 7 7 7 7 7 4 4 4	20 20 20 20 20 20 20 20 20 20		1200 1000 1200 1200 1200 1200 1000 400	700 500 700 700 700 700 500 200	600 400 600 600 600 600 400 150	2.0 2.0 2.0 2.0 2.0 2.0 1.6 1.6	Fd(1.0) Pl(1.6) Sx(.8) Fd(.8) Pl(1.2) Fd(1.0) Pl(1.6) Sx(.8) Fd(1.0) Pl(1.6) Sx(.8) Fd(1.0) Pl(1.6) Sx(.8) Pl(1.6) Sx(.8) Sx(.6) Pl(1.2) Sx(.6)  Pl(1.0) Fd(.6) Pl(1.0)	Sb(.6)  Lw(1.6)  Sx(.6) Py(1.2)  Lw(1.6)  Lw(1.6)  BI(.6) PI(1.2)  Sb(.6)		

SBPS	xc		3	4	20	1	1000	500	400	2.0	PI(1.0) Sx(.6)		
SBPS	хc		4	4	20	1	1200	700	600	2.0	PI(1.0) Sx(.8)	Lw(1.4)	
SBPS	ХС		5	4	20	1	1000	500	400	1.6	PI(1.0) Sx(.6)	()	
SBPS	XC		6	4	20	1	1000	500	400	1.6	PI(1.0) Sx(.6)		
02.0	,,,								.00		(=) 6()		
SBS	dk		1	7	20	I	1200	700	600	2.0	PI(2.0) Sx(1.0) Fd (1.4)		This <i>BEC</i> is primarily PG.
SBS	dk		2	7	20	ı	1000	500	400	1.6	PI(1.4) Sx(.8)		
SBS	dk		3	7	20	1	1200	700	600	2.0	PI(2.0) Sx(1.0)	Sb(1.0)	
SBS	dk		4	7	20	1	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)		
SBS	dk		5	7	20	1	1200	700	600	2.0	PI(2.0) Sx(1.0) Fd(1.4)		
SBS	dk		6	4	20	1	1200	700	600	2.0	PI(2.0) Sx(1.0) Fd(1.4)		
SBS	dk		7	4	20	- 1	1000	500	400	2.0	Sx(.8) PI(1.4)		
SBS	dk		8	4	20	- 1	1200	700	600	2.0	Sx(1.0) PI(2.0)		
SBS	dk		9	4	20	1	400	200	150	1.6	PI(1.4) SB(1.0)		
SBS	dk		10	4	20	- 1	400	200	150	1.6	PI(1.4) Sx(.8) SB(.8)		
<u> </u>													
SBS	dw	1	1	7	20	1	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)	Lw(2.0) BI(1.0)	
SBS	dw	1	2	7	20	1	1000	500	400	2.0	Fd(1.0) Pl(1.4)	Lw(1.4)	
SBS	dw	1	3	7	20	1	1200	700	600	2.0	Fd(1.4) Pl(2.0)	Lw(1.4)	
SBS	dw	1	4	7	20	I	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)		
SBS	dw	1	5	7	20	1	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)	Lw(1.4)	
SBS	dw	1	6	7	20	I	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)	-	
SBS	dw	1	7	4	20	- 1	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)	BI(1.0)	
SBS	dw	1	8	4	20	- 1	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)	BI(1.0)	
SBS	dw	1	9	4	20	- 1	1000	500	400	1.6	Sx(.8)	BI(.8) PI(1.4)	
<u> </u>													
SBS	dw	2	1	7	20	1	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)	Lw(2.0)	
SBS	dw	2	1	7	20	4	1200	700	600	2.0	Fd(1.0) Pl(2.0) Sx(1.0)		
SBS	dw	2	1	7	20	3	1000	500	400	2.0	Fd Pl Sx		
SBS	dw	2	1	7	20	2	800	400	300	2.0	Fd Pl Sx		
SBS	dw	2	1	7	20	1	600	300	250	0.0	Fd Pl Sx		
SBS	dw	2	2	7	20	1	1000	500	400	2.0	Fd(1.0) Pl(1.4)	Lw(1.4)	
SBS	dw	2	2	7	20	4	1000	500	400	2.0	Fd(1.0) Pl(4)		
SBS	dw	2	2	7	20	3	800	400	300	2.0	Fd Pl		
SBS	dw	2	2	7	20	2	600	300	250	2.0	Fd Pl		
SBS	dw	2	2	7	20	1	400	200	200	0.0	Fd Pl		
SBS	dw	2	3	7	20	- 1	1200	700	600	2.0	Fd(1.4) Pl(2.0)		
SBS	dw	2	3	7	20	4	1200	700	600	2.0	Fd(1.0) Pl(2.0)		
SBS	dw	2	3	7	20	3	1000	500	400	2.0	Fd Pl		
SBS	dw	2	3	7	20	2	800	400	300	2.0	Fd Pl		
SBS	dw	2	3	7	20	1	600	300	250	0.0	Fd Pl		
SBS	dw	2	4	7	20	1	1200	700	600	2.0	Fd(1.4) Pl(2.0)	Lw(2.0)	
SBS	dw	2	4	7	20	4	1200	700	600	2.0	Fd(1.0) Pl(2.0)		

SBS	dw	2	4	7	20	3	1000	500	400	2.0	Fd Pl		- 1
SBS	dw	2	4	7	20	2	800	400	300	2.0	Fd Pl		
SBS	dw	2	4	7	20	1	600	300	250	0.0	Fd Pl		
SBS	dw	2	5	7	20	I	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)	Lw(2.0)	
SBS	dw	2	5	7	20	4	1200	700	600	2.0	Fd(1.0) Pl(2.0) Sx(1.0)		
SBS	dw	2	5	7	20	3	1000	500	400	2.0	Fd Pl Sx		
SBS	dw	2	5	7	20	2	800	400	300	2.0	Fd Pl Sx		
SBS	dw	2	5	7	20	1	600	300	250	0.0	Fd Pl Sx		
SBS	dw	2	6	7	20	I	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)	Lw(2.0)	
SBS	dw	2	6	7	20	4	1200	700	600	2.0	Fd(1.0) Pl(2.0) Sx(1.0)		
SBS	dw	2	6	7	20	3	1000	500	400	2.0	Fd Pl Sx		
SBS	dw	2	6	7	20	2	800	400	300	2.0	Fd Pl Sx		
SBS	dw	2	6	7	20	1	600	300	250	0.0	Fd Pl Sx		
SBS	dw	2	7	7	20	I	1200	700	600	2.0	PI(2.0) Sx(1.0)	BI(1.0)	
SBS	dw	2	8	4	20	I	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)	BI(1.0)	
SBS	dw	2	9	4	20	I	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)	BI(1.0)	
SBS	dw	2	10	4	20	I	1000	500	400	1.6	Sx(.8)	BI(.8) PI(1.4)	
SBS	dw	2	11	4	20	I	400	200	150	1.6	PI(1.4) Sx(.8)		
SBS	mc	1	1	7	20		1200	700	600	2.0	Fd(1.0) Pl(1.6) Sx(.8)	BI(.8) Lw(1.6)	
SBS	mc	1	2	7	20	I	1000	500	400	2.0	PI(1.4)	Sx(.6) Bl(.6) Lw(1.4)	
SBS	mc	1	3	7	20	ı	1200	700	600	2.0	Fd(1.0) Pl(1.4)	Sx(.8) Lw(1.4)	
SBS	mc	1	4	7	20	I	1200	700	600	2.0	PI(1.6) Sx(.8)	BI(.8)	
SBS	mc	1	5	7	20	I	1200	700	600	2.0	PI(1.6) Sx(.8)	BI(.8)	
SBS	mc	1	6	4	20	I	1200	700	600	2.0	Fd(1.0) Pl(1.6) Sx(.8)	BI(.8)	
SBS	mc	1	7	4	20		1200	700	600	2.0	Fd(1.0) Pl(1.6) Sx(.8)	BI(.8)	
SBS	mc	1	8	4	20	I	1000	500	400	1.6	Sx(.6)	PI(1.2) BI(.6)	
													_
SBS	mc	2	1	7	20	I	1200	700	600	2.0	PI(1.6) Sx(.8)	BI(.8)	
SBS	mc	2	2	7	20	I	1000	500	400	1.6	PI(1.2)	Sx(.6) BI(.6)	
SBS	mc	2	3	7	20	1	1200	700	600	2.0	PI(1.6) Sx(.8)	BI(.8) SB (.6)	
SBS	mc	2	4	4	20	I	1200	700	600	2.0	PI(1.6) Sx(.8)	BI(.8)	
SBS	mc	2	5	4	20	1	1200	700	600	2.0	PI(1.6) Sx(.8)	BI(.8)	
SBS	mc	2	6	4	20	I	1200	700	600	2.0	PI(1.6) Sx(.8)	BI(.8)	
SBS	mc	2	7	4	20	I	1000	500	400	1.6	PI(1.2) Sx(.6)	BI(.6) SB (.6)	
SBS	mc	2	8	4	20	I	1200	700	600	2.0	PI(1.6) Sx(.8)	BI(.8)	
SBS	mc	2	9	4	20	1	1200	700	600	2.0	PI(1.6) Sx(.8)	BI(.8)	
SBS	mc	2	10	4	20	I	1000	500	400	1.6	PI(1.2) Sx(.6)	BI(.6)	
SBS	mc	2	11	4	20	I	1000	500	400	1.6	Sx(.6)	PI(1.2) BI(.6)	
SBS	mc	2	12	4	20	I	400	200	150	1.6	PI(1.2) Sx(.6)	BI(.6)	
SBS	mc	3	1	7	20	I	1200	700	600	2.0	PI(1.6) Sx(.8)	BI(.8) Fd(0.8) Lw(0.8)	This <i>BEC</i> is primarily PG.
SBS	mc	3	2	7	20	I	1200	700	600	2.0	PI(1.6)	Sx(.8)	

SBS	mc	3	3	7	20	L	1200	700	600	2.0	PI(1.6)	Sx(.8)	1	ı
SBS	mc	3	4	7	20	<u>'</u>	1200	700	600	2.0	PI(1.6) Sx(.8)	BI(.8) Sb(.8)		
SBS	mc	3	5	7	20	<u> </u>	1200	700	600	2.0	PI(1.6)	Sx(.8) Sb(.8)		
SBS	mc	3	6	7	20	i	1200	700	600	2.0	PI(1.6)	Sx(.8) Sb(.8)		
SBS	mc	3	7	4	20	<u> </u>	1200	700	600	2.0	PI(1.6) Sx(.8)	BI(.8)		
SBS	mc	3	8	4	20	' '	1000	500	400	1.6	PI(1.2) Sx(.6)	BI(.6)		
SBS	mc	3	9	4	20	1	400	200	150	1.6	PI(1.2) Sx(.6)	BI(.8) Sb(.8)		
303	IIIC	3	9	4	20	'	400	200	130	1.0	11(1.2) 3A(.0)	ы(.о) эь(.о)		
CDC	h		1	7	20	1 ,	1200	700	C00	2.0	Fd(1 4) C;/(1 0)	DI(1 0) L(2 0)	1	
SBS	mh		1	•	20	1	1200	700	600	2.0	Fd(1.4) Sx(1.0)	BI(1.0) Lw(2.0)		
SBS	mh		2	7	20	I	1000	500	400	2.0	Fd(1.0) Pl(1.4)	Lw(1.4)		
SBS	mh		3	7	20	1	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)	BI(1.0)		
SBS	mh		4	7	20	l I	1200	700	600	2.0	Fd(1.4)	BI(1.0) Sx(1.0) Lw(1.4)		
SBS	mh		5	7	20	!	1200	700	600	2.0	Fd(1.4) Sx(1.0)	BI(1.0) Lw(2.0)		
SBS	mh		6	7	20	I	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)	BI(1.0)		
SBS	mh		7	4	20		1200	700	600	2.0	Fd(1.4) Sx(1.0)	BI(1.0)		
SBS	mh		8	4	20	l	1200	700	600	2.0	Fd(1.4) Sx(1.0)	BI(1.0)		
SBS	mh		9	4	20		1000	500	400	1.6	Sx(.8)	BI(0.8)		
			1			1								
SBS	mm		1	7	20	I	1200	700	600	2.0	PI(2.0) Sx(1.0) BI(1.0)	Fd(1.4)	Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well-spaced trees	This <i>BEC</i> is primarily in TOR
SBS	mm		2	7	20	1	1000	500	400	1.6	PI(1.4)	Sx(.8) BI(.8) Fd(1.0)		
SBS	mm		3	7	20	1	1000	500	400	2.0	PI(1.4) Sx(.8)	BI(.8) Fd(1.0)		
SBS	mm		4	7	20	1	1000	500	400	2.0	PI(1.4) Sx(.8)	Fd(1.0) Bl(.8)		
SBS	mm		5	7	20	ı	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)	BI(1.0)		
SBS	mm		6	7	20	I	1200	700	600	2.0	PI(2.0) Sx(1.0) BI(1.0)	Fd(1.4)	Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well-spaced trees	
SBS	mm		7	4	20	I	1200	700	600	2.0	Sx(1.0) BI(1.0)	Fd(1.4) Pl(2.0) Cw(1.0)	Balsam (BI) is limited to a maximum of 50% of preferred and acceptable well-spaced trees	
SBS	mm		8	4	20	1	1000	500	400	1.6	Sx(.8) BI(.8)	PI(1.4)		
SBS	mw		1	7	20	1	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)	BI(1.0) Lw(2.0)		
SBS	mw		2	7	20	I	1000	500	400	1.6	Fd(1.0) Pl(1.4)	Sx(.8) BI(.8)		
SBS	mw		3	7	20	I	1200	700	600	2.0	Fd(1.4) Pl(2.0)	Sx(1.0) Lw(2.0)		
SBS	mw		4	7	20	ı	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)	BI(1.0) Lw(2.0)		
SBS	mw		5	4	20	I	1200	700	600	2.0	PI(2.0) Sx(1.0)	BI(1.0)		
SBS	mw		6	4	20	ı	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)	BI(1.0)		
SBS	mw		7	4	20	1	1200	700	600	2.0	PI(2.0) Sx(1.0)	BI(1.0)		
SBS	mw		8	4	20	ı	1200	700	600	1.6	Fd(1.4) Sx(1.0)	BI(1.0) PI(2.0)		
SBS	mw		9	4	20	1	1000	500	400	1.6	Sx(.8)	BI(.8) PI(1.4)		
303	11177		,	4	20		1000	300	+00	1.0	3/(.0)	DI(.0) I I(1.4)		

SBS	mw		10	4	20	1 1	400	200	150	1.6	PI(1.4) Sx(.8)	SB(.8)	1
				4									+
SBS	mw		11	4	20		1200	700	600	2.0	PI(2.0) Sx(.8)	BI(.8)	
SBS	mw		12	4	20	I	1000	500	400	1.6	PI(1.4) Sx(.8)		
SBS	mw		13	4	20	ı	1000	500	400	1.6	Sx(.8)	BI(.8)	
SBS	wk	1	1	7	20	I	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)	BI(1.0)	
SBS	wk	1	2	7	20	I	1000	500	400	2.0	PI(1.4) Fd(1.0)	BI(.8) Sx(.8)	
SBS	wk	1	3	7	20	I	1200	700	600	2.0	PI(2.0) Fd(1.4)	Sx(1.0)	
SBS	wk	1	4	7	20	I	1200	700	600	2.0	Fd(1.4) Pl(2.0) Sx(1.0)	BI(1.0)	
SBS	wk	1	5	7	20	I	1200	700	600	2.0	PI(2.0) Sx(1.0)	Fd(1.4) Bl(1.0)	
SBS	wk	1	6	4	20	I	1200	700	600	2.0	PI(2.0) Sx(1.0)	BI(1.0)	
SBS	wk	1	7	4	20	I	1200	700	600	2.0	PI(2.0) Sx(1.0)	BI(1.0)	
SBS	wk	1	8	4	20	I	1200	700	600	2.0	PI(2.0) Sx(1.0)	BI(1.0)	
SBS	wk	1	9	4	20	I	1000	500	400	1.6	Sx(.8)	PI(1.4) BI(.8)	
SBS	wk	1	10	4	20	I	400	200	150	1.6	PI(1.4) Sx(.8)		
SBS	wk	1	11	4	20	- 1	400	200	150	1.6	PI(1.4) Sx(.8)		

## Appendix H 1: 100,000 Scale Maps

Submitted under separate cover

o 64 maps group into these 4 cateroigies: Fish + Wildlife, Recreation, Riparain, and Biological diversity

Internal bcts reference F:\tcc\_root\GIS\_Workspace\Projects\18038 - FSP maps(HeloiseDW)