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Forest Stewardship Plan

Dec 21, 2016 – Dec 21, 2021

Forest Licences: A20193 and A20218

Box 460 Fruitvale, B.C. VOG 1Y0

Phone: (250) 367-9441 Fax: (250) 367-6210

1. Signatures

Signature of the Person Required to Prepare this FSP:

Craig Stemmler, RPF Woodlands Manager Atco Wood Products Ltd.

Ron K Ozanne, RPF #1230
"I certify that the work describes herein wifills the standards expected of a member of the ABCFP and that I did personally supervise the work.

Date: 2016-08-15

Signature and Seal of Registered Professional Forester:

2. Interpretation

2.1 Definitions under Acts and Regulations

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

2.2. Definitions Specific to this FSP

"FRPA Value" means one or more of the following:

- a) Soils
- b) Visual quality
- c) Timber
- d) Forage and associated plant communities
- e) Water
- f) Fish
- g) Wildlife
- h) Biodiversity
- i) Recreation resources
- j) Resource features
- k) Cultural heritage resources

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

"Qualified Registered Professional" means a person who:

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

"Reasonable opportunity for review and comment" means a written referral letter (either mailed or sent electronically), provided by AWP with a specified time (generally either 30 or 60 days) allowed for providing comments in order for the comments to be considered.

2.3. Objectives, Results, Strategies and Measures

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

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

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

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

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

2.4. Common Acronyms Used in forestry and occasionally within this FSP.

ATW: Atco Wood Products Ltd. **BCTS:** British Columbia Timber Sales

BEC: Biogeoclimatic Ecosystem Classification

CHR: Cultural Heritage Resource

CP: Cutting Permit

CRA: Controlled Recreation Area **DDM:** Delegated Decision Maker **FDU:** Forest Development Unit

FL: Forestry Licence

FPC: Forest Practices Code of BC Act

FPPR: Forest Planning and Practices Regulation

FRPA: Forest and Range Practices Act **FRR:** Forest Recreation Regulation

FSP: Forest Stewardship Plan

GAR: Government Actions Regulation **GWM:** General Wildlife Measure

ILMB: Integrated Land Management Bureau

KBHLPO: Kootenay-Boundary Higher Level Plan Order

KLC: Kalesnikoff Lumber Co. Ltd

LU: Landscape Unit

MFLNRO: Ministry of Forests, Lands and Natural Resource Operations

NDT: Natural Disturbance Type

OGMA: Old Growth Management Area

QP: Qualified Professional

QRP: Qualified Registered Professional **RMZ:** Riparian Management Zone

RP: Road Permit

FPC: Forest Practices Code

RPF: Registered Professional Forester

RRZ: Riparian Reserve Zone

SAR: Species at Risk **SU:** Standards Unit **TSA:** Timber Supply Area

UWR: Ungulate Winter Range **VIA:** Visual Impact Assessment

VQO: Visual Quality Objective **WHA:** Wildlife Habitat Area **WTP:** Wildlife Tree Patch

WTRA: Wildlife Tree Retention Area

3. Application of the FSP

3.1 Term of the FSP

Legal Reference: FRPA s 6(1)(a), 6(2), & 14

The term of this FSP is five years, commencing from the date of approval by the Delegated Decision Maker (DDM) for the Minister of Forests, Lands and Natural Resource Operations or another date as specified by the DDM. The existing FSP expires on December 20, 2016.

3.2 Content Requirements

Content requirements of a FSP are described in the Forest and Range Practices Act (FRPA) and its associated Forest Planning and Practices Regulation (FPPR).

A separate document, **Atco Wood Products Ltd Forest Stewardship Plan Supporting Document**, provides supporting information for this plan. The supporting document is prepared to ensure a consistent approach to planning is undertaken within Atco's operations. This document will be made available to the public (if requested) to provide context to the main FSP but is not considered part of the legal realm of the Forest Stewardship Plan.

3.3 Forest Development Units (FDU's)

3.3.1 Forest Development Units in Effect on Date of Submission

These FDU's were defined by existing chart areas (designated locations where Atco Wood Products (AWP) has been assigned to operate under the authority of FL's A20193 (Arrow TSA) and FLA20218 (Kootenay Lake TSA).

Table 1: Existing Forest Development Units

TSA	Forest Development Unit (FDU)	Gross Area Hectares (Ha)
	Boulder Creek	1018
	Champion	7439
	Divide	5971
	Erie	5884
	Huckleberry	444
Arrow / Boundary – FLA20193	Jordan	6575
	Ladybird	14100
	Mackie	7045
	Murphy	11777
	Nancy Greene Highland (NGH)	4523
	Nancy Greene North (NGN)	10758

	Nancy Greene South (NGS)	9053				
	Pend-d'Oreille					
	Sheppard	6300				
	Siwash	5131				
	Total	105067				
Kootenay Lake – FLA20218	Kootenay Lake	14349				
	Total	14349				

3.3.2 New FDUs & Rationale

<u>Legal Reference:</u> FPPR, s14

New FDUs: The overview map in Figure 1 shows the 2 FDUs comprising this FSP.

Table 2: Landscape Units contained within the Arrow and Kootenay Lake FDU's.

FDU	Landscape Unit (LU)
Arrow (Arrow TSA)	N501-N509, N511 & N512
Kootenay Lake (Kootenay Lake	K9, K11
TSA)	
•	

Rationale:

The above 2 FDUs, one in the Arrow TSA and the other in Kootenay Lake TSA, have been created to encompass LUs where Atco's existing Chart areas lie plus some adjacent LUs. Entire LUs have been used as KBHLPO objectives are largely based on these units. In addition, LUs are often defined by heights of land, watershed boundaries, major rivers, Lakes and other topographically significant features which are the same common units used for planning purposes.

With regard to covering area outside Atco's operating (Chart) area, the intent is to avoid FSP amendments made to allow road access, topographic breaks, licensee operating area switching and other logistical measures.

Where Atco is going to propose forest development within another licensee's operating area, the company will consult with the other licensee to establish a mutually acceptable agreement. It is Atco's intention to minimize the cases that necessitate operations outside existing operating areas. As a consequence, there will be a reduction in the number of amendments to the FSP.

Appendix I contains a map of the Arrow and Kootenay Lake FDU's identifying the features required as per FPPR, Section 14:

4. Public Review and Comment

Legal reference: Forest Planning and Practices Regulation section 20, 21 and 22

Forest Stewardship Plan Advertisement:

The general public was made aware the Forest Stewardship Plan was available for review and comment through notices placed in local newspapers and through referral notices that were emailed or mailed out to

potentially affected stakeholders. Atco is committed to meeting with any stakeholder who wants further information, or has concerns or further questions.

The Forest Stewardship Plan was made available for public review and comment at the licence holder's office during regular business hours 7 a.m. to 4 p.m. Monday through Friday for a period of 60 days (Aug 15, 2016 to Oct 14, 2016). The licence holder provided a referral notice and requested a meeting with potentially affected stakeholders and First Nations representatives to discuss the Forest Stewardship Plan. Summary of written comments received as well as revisions made during the referral period will be found in Appendix V at the time of the final submission.

Written comments specific to the Forest Stewardship Plan will be recorded and kept on record to ensure that concerns are considered at the development stage.

Forest Development Referrals:

The licence holder is committed to continual information sharing and will refer all forest development plans (ie: roads and cutblocks) to potentially affected stakeholders whose rights may be affected by a proposed development with an opportunity to review the proposed development in a manner that is commensurate with the nature and extent to which the stakeholders' rights may be affected. A written notification of planned forest development will be referred to potentially affected stakeholders. The written notice will provide stakeholders with a minimum 30 day review and comment period prior to cutting permit application. The notice may be reduced to 10 days if timber is dead, infested with pests or otherwise damaged; and must be harvested expeditiously to prevent spread of pests or declining timber value due to deterioration of quality.

It is particularly noteworthy that the forest development referral is generally the most meaningful form of public engagement as it allows stakeholders to see directly the blocks, roads, and other site specific details that may affect their interests.

5. Results and Strategies for Objectives Set by Government

5.1 Land Use Objectives

The area under this Forest Stewardship Plan is within the scope of the Kootenay Boundary Higher Level Plan Order effective October 26, 2002, and all approved variances to it. Where there is a conflict between the Kootenay Boundary Higher Level Plan Order and objectives set by Forest and Range Practices Act and its regulations, the Kootenay Boundary Higher Level Plan Order objectives and strategies will prevail to the extent of the discrepancy.

Unless specified under each objective, it is assumed the Results and Strategies apply to both the Arrow and Kootenay Lake FDU's.

5.1.1 Biodiversity Emphasis

Objective: To contribute to the conservation of biodiversity, through the assignment of

biodiversity emphasis to each landscape unit.

Legal Reference: KBHLPO – Objective I

Relates to: s 5.1.2 of this document.

Results and Strategies

The licence holder will undertake to comply with Objective 1 of Kootenay Boundary Higher Level Plan Order (KBHLPO).

5.1.2 Old and Mature Forest

Objective: To maintain mature forests and old forests to levels indicated in the Kootenay

Boundary Higher Level Plan.

<u>Legal Reference:</u> KBHLPO, Objective 2

Relates to: **s** 5.1.1 of this document.

Results and Strategies

The licence holder will undertake to comply with Objective 2 of Kootenay Boundary Higher Level Plan Order.

Old Forest:

Old Forest requirements, applying to all FDU's, are currently fulfilled and managed with non-legal spatialized Old Growth Management Areas that were established to provide representative examples of Old Forest values, and to support the conservation of other important values, such as wildlife habitat, connectivity, rare ecosystems, recreation and cultural-heritage.

The Old Growth Management Strategy allows the licence holder to manage the Old Forest distribution based on current information. Modifications to the boundaries of established OGMA's can be implemented as long as the modification is replaced by a commensurable area with similar forest attributes, or where a Qualified Registered Professional (QRP) determines that a forest stand has sufficient biological value to be an Old Forest.

Preference will be given to amending Old Growth Management Areas in stands that contain or have a good likelihood of developing and maintaining biodiversity pertinent to the biogeoclimatic zones within landscape units. Attempts will be made by the prescribing QRP to maintain similar forest attributes as found in the original Old Growth Management Area while also focusing on other important values, such as wildlife habitat, rare ecosystems, recreation, First Nations cultural values and cultural values of communities within the Kootenays. In addition, OGMA's should be located in areas where harvesting constraints provide the best long term potential for stands to develop old forest attributes associated with advanced age.

OGMA modifications will be assessed and approved by a QRP, where a written rationale and accompanying map denoting the modifications will be prepared and kept on record.

There are circumstances where very minor tree removal is required within OGMAs to facilitate harvesting and or safety. These are danger tree hazards adjacent forest activities and where tail holds or guy line tiebacks are required for cable harvesting. The QRP will write a rationale for these situations and extra effort will be made to minimize these circumstances.

Mature Forest:

The mature requirements only apply to the Arrow FDU within the Landscape Units (LU) and BEC subzones / variants as shown below:

LU	BEC subzone/ variant	BEO		
N501-Sheep Creek	ICHdw	intermediate		
N504-Pend'Oreille	ICHdw	intermediate		
N505-Stagleap	ICHdw	intermediate		
N508-Blueberry	ICHdw	intermediate		
N509-Dog	ICHdw	intermediate		
N511-Cayuse	ICHdw	intermediate		

It is the responsibility of the licence holder to determine existing seral stage distribution and levels of Old plus Mature Forest in which Landscape Unit they operate. The licence holder is a subscriber to the Higher Level Plan Objectives Reporting Suite application that allows users to produce reports reflecting the rules embodied in the KBHLPO for meeting Old plus Mature Forest requirements. GeoData BC provides source planning data for the application; the reporting suite application models the source data and produces summary tables the licence holder will use to determine existing seral stage distribution and levels of Old plus Mature Forest.

The Higher Level Plan Objectives Reporting Suite application can be found at: http://www.kootenayspatial.ca/pg hlpo/login.jsp

Where recruitment is required to meet Old plus Mature targets, the recruitment strategy should generally be designed to minimize fragmentation and achieve targets in the shortest time frame (KBHLPO, 2002).

5.1.3 Caribou

Objective: To retain seasonal habitats for Mountain Caribou in order to contribute to maintaining

viability of the existing subpopulations according to forest cover requirements in the

Kootenay Boundary Higher Level Plan.

Legal Reference: KBHLPO, Objective 3 (replaced by variance Order KBHLP-04) and the addition of

Variance 6, GAR's 9(2) and 12(1).

Relates to: **s** 5.3.4 of this document.

Applies to: Kootenay Lake FDU and LU 505 in Arrow FDU.

Portions of FDU applicable:

Arrow FDU: LU: N505

Kootenay Lake FDU: LU's: K7&K9

Results and Strategies

KBHLPO Objective 3 was cancelled and replaced with GAR ORDER – Ungulate Winter Range #U-4-012 Mountain Caribou – Southwest Kootenay Planning Unit, under the authority of GAR section 9(2) and 12(1) February 12, 2009. ORDER – Ungulate Winter Range #U-4-012 was subsequently replaced December 9, 2009.

5.1.4 Green-up

Objective: To establish a Green-up under the stipulations of KBHLPO, Objective 4.

Legal Reference: KBHLPO, Objective 4.

Results and Strategies

The licence holder will undertake to comply with Objective 4 of KBHLPO.

5.1.5 Grizzly Bear Habitat and Connectivity Corridor

Objective: To maintain mature and/ or old forests adjacent to important grizzly bear

habitat and within connectivity.

<u>Legal Reference:</u> KBHLPO – Objective 5

Grizzly Bear

<u>Relates to:</u> s 5.3.5 of this document for FDU's and LU's covered by Grizzly GAR.

Results and Strategies

The licence holder will undertake to comply with Objective 5 of KBHLPO.

5.1.6 Consumptive Use Streams

Objective: To reduce the impacts of forest development on streams licensed for human

consumption.

<u>Legal Reference:</u> KBHLPO – Objective 6

Relates to: s 5.2.4 of this document

Results and Strategies

Definitions for the purpose of this section:

• "Activities" in objective 6(1)(a)(i) of the KHLPO means primary forest activities.

The holder will undertake to comply with Objective 6 of the KBHLPO.

For each S5 and S6 stream where the specified streamside management zone applies, the holder will plan and implement primary forest activities only if, in the opinion of a QRP, implementing the plan;

- Will not cause material that is harmful to human health to be deposited in, or transported to, water that is diverted for human consumption by a licensed waterworks, and
- b. Will not damage a licensed waterworks.
- c. Will not result in locating stream crossings within 50m (slope distance) upslope of known intakes unless there is no practicable option.
- d. Will result in re-vegetating of cut banks and fill slopes within one growing season following disturbance (as soil and weather conditions allow).

5.1.7 Enhanced Resource Development Zones (ERDZ)

Objective: To support forest management for the purpose of increasing volumes of

merchantable timber and to reduce industry costs while maintaining adequate

environmental stewardship.

Legal Reference: KBHLPO – Objective 7; FPPR s 65(3)(a) & 65(3)(b)ii

Results and Strategies

The licence holder will undertake to comply with Objective 7 of KBHLPO. The minimum greenup height will be as per section 5.2.7 of this FSP

5.1.8 Fire Maintained Ecosystems

Objective: To restore and maintain the ecological integrity of fire-maintained ecosystem

components in Natural Disturbance Type (NDT) 4.

<u>Legal Reference:</u> KBHLPO – Objective 8

Applicable FDU: None

Results and Strategies

The map has not been established for this objective and therefore the fire maintained ecosystem objective is not in effect.

5.1.1.9 Visuals

Objective: To conserve the quality of views from communities, major waterways, and

major highways by establishing areas known as scenic areas.

Legal Reference: KBHLPO – Objective 9

Relates to: s 5.2.9, 5.3.1, and 5.4.2 of this document

Results and Strategies

Arrow FDU

In accordance with GAR Section 7(1) order dated December 31, 2005 scenic areas identified on map 9.1 of the KBHLPO have been replaced with new scenic areas. In consideration of the GAR order, the visual objective 9 of the KBHLPO is not in effect.

Kootenay Lake FDU

In accordance with GAR Section 17 the scenic areas and subsequent visual quality classes (VQO's) established by the District Manager's letter dated July 12, 1999 are in place. These scenic areas and VQO's are consistent with the scenic areas identified in the KBHLPO. The holder will undertake to comply with Objective 9 of the KBHLPO.

5.2 Objectives prescribed under FRPA sec. 149(1)

5.2.1 Soils

Objective: The objective set by government for soils is, without unduly reducing the

supply of timber from British Columbia's forests, to conserve the productivity

and the hydrologic function of soils.

<u>Legal Reference:</u> FRPA section 5 and 12.1(1)

Results and Strategies

The license holder will undertake to comply with Forest Planning and Practices Regulation section 35 and 36.

If the Permanent Access Structures built by the holder exceed 7%, then a QRP will write a rationale which identifies why this disturbance level is exceeded. This limit will be set in accordance with Section 36(1) or (2) of the FPPR.

5.2.2 Timber

<u>Objective:</u> To maintain or enhance an economically valuable supply of commercial timber

while ensuring that delivered wood costs, generally, after taking into account the effect on them of the relevant provisions of the FPPR and FRPA, are competitive in relation to equivalent costs in relation to regulated primary

forest activities in other jurisdictions.

<u>Legal Reference:</u> FPPR, s. 6

Relates to: s 7.2 and Appendix II of this document

Results and Strategies

The stocking standards shown in section 7.2 and Appendix 2 of this document show the rules for the establishment of managed forests. These managed forests will provide an enhanced supply of commercial timber, as opposed to the prior natural established forests.

The holder will work in conjunction with the Ministry to maintain or enhance the Timber Supply (ie. Timber Supply Review - Annual Allowable Cut). This will involve using technologically improved harvest machines, harvesting existing non-merchantable tree species and better utilization. AWP will assist in providing the best/ most current information used in Timber Supply Reviews.

Annually, the MFLNRO carries out an overview flight to assess the damage done by Forest Health agents. With the resulting map, the holder will establish salvage plans and implement control measures if applicable. In addition, the holder is committed to working with the various Forest Health strategies established by the Ministry.

5.2.3 Wildlife

Objective: The objective set by government for wildlife is, without unduly reducing the

supply of timber from British Columbia's forests, to conserve sufficient wildlife habitat in terms of amounts of area, distribution of areas and attributes of those areas, for the survival of species at risk, the survival of regionally important wildlife, and the winter survival of specified ungulate species.

Legal Reference: FPPR sec. 7 and GAR's 9-13

<u>Relates to:</u> **s** 5.3.2, 5.3.3, 5.3.4, and 5.3.5 of this document

5.2.3.1 Species at Risk

Pursuant to section 7(3) of the FPPR, the license holder is exempt from the obligation to prepare results or strategies in relation to the objective set out in section 7(1) of the FPPR given the established Wildlife Habitat

Areas address the amount of area required to meet habitat requirements and specify general wildlife measures to maintain the identified wildlife within those areas. The requirements are met with respect to Interior Western Screech Owl and Rocky Mountain Tailed Frog. The Coeur d' Alene Salamander and Flammulated Owl are the exception, where the required amount and distribution of Wildlife Habitat Areas have not been satisfied.

FPPR section 7 notices are tracked through the following website:

http://www.env.gov.bc.ca/wld/frpa/notices/sar.html#ab

Species at risk, for which the license holder will provide special management, are for the most part limited to vertebrate species designated as Red or Blue by the Ministry of Environment, or as Endangered, Threatened or Special Concern (listed on Species at Risk Public Registry schedule 1) by the Committee on the Status of Endangered Wildlife in Canada. The Schedule 1 can be found at the following website:

http://www.registrelep-sararegistry.gc.ca/species/schedules e.cfm?id=1

Results and Strategies

Annual training will be conducted by the license holder to support the license holder's staff and contractors in identifying species at risk and wildlife habitat. Training will involve the identification of species at risk, habitat attributes, habitat suitability, reporting and best management practices.

The British Columbia Species and Ecosystem Explorer Tool will be incorporated into the training and utilized to generate information on species and ecological communities, including conservation or legal status, and spatial distribution.

http://www.env.gov.bc.ca/atrisk/toolintro.html

Reporting:

Should any of the species at risk be observed outside of known occurrence sites, the license holder will notify the Conservation Data Center and inform them of the occurrence.

The British Columbia Conservation Data Centre: Data Submissions website will be utilized to submit observations of species at risk.

http://www.env.gov.bc.ca/cdc/contribute.html

Practice:

In an effort to reduce the impact of forest development on species at risk, during the planning process, the license holder will review known species at risk occurrences and their proximity to development areas. Where there are known species at risk in proximity to development areas, best management practices as found within the British Columbia Species and Ecosystem Explorer Tool will be used to ensure that proposed development activities are planned and carried out in compliance with various legislation, regulation and policies.

If a species at risk is encountered during operations, activities will be halted immediately and will not resume until a QRP has assessed and provided recommendation. Continuance of operational activities is to be consistent with the recommendations of the QRP.

The license holder will ensure, where there may be a conflict with a species at risk, the following best management practices will be used:

- The license holder will only conduct primary forestry activities consistent with the requirements in Wildlife Habitat Area orders.
- License holder's staff and contractors will be trained to identify potential wildlife habitat.
- Where possible, retain existing, natural habitats suitable for the species at risk.
- Strive to retain, restore, or enhance key habitat features.
- Seek the advice of a QRP if attempting to restore or enhance habitat.

5.2.3.2 Ungulate Winter Range

See section 5.3.2 and 5.3.4 of this document.

5.2.4 Water, Fish, Wildlife and Biodiversity within Riparian Areas

Objective: The objective set by government for water, fish, wildlife and biodiversity

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

riparian areas.

<u>Legal Reference:</u> FPPR s. 8, 12.1(2), 12(3), 47-51, 52(2) and 55-58

Section 53 of the FPPR applies to designated Temperature Sensitive Streams. There are no designated Temperature Sensitive Streams in the FDU areas at present.

Results and Strategies

The holder will undertake to comply with FPPR s. 47-51, 52(2), 53 and 55-58.

The following result satisfies the requirement of FPPR 12(3):

a) When the holder harvests or constructs roads, tree retention levels for the riparian management zone are as follows:

Table 3: Riparian Class and Riparian Management Zone Retention On a Landscape Level

Stream Class	Riparian Management Zone Retention
All streams except S-6 Wetlands Lakes	Retain a minimum of 100 stems per hectare (SPH). Trees selected to be retained in the RMZ will include the following if present: • non merchantable conifer trees / understory (greater than 1.3 m in height) • wind-firm deciduous trees • wind-firm trees with roots embedded in the banks • wind-firm wildlife trees The role of these trees and understory vegetation are for aiding in the conservation of water quality, fish habitat (if present), wildlife habitat and biodiversity.
S-6	N/A

To clarify, all riparian management/reserve zones are slope distance.

The location, dispersement and tree selection for retention within the RMZ will be determined on a site-specific basis, considering local conditions (safety, windfirmness, prevailing winds, stream channel – integrity/ stability/erosion potential, forest health factors, fish and wildlife habitat, water quality, licensed consumptive water use and intake locations, vegetation management and post-harvest silviculture treatments, course woody debris requirements, hydrologic/ terrain stability concerns, visual quality, and timber/operational constraints).

If a situation arises that does not meet the above mentioned result as shown in Table 3, a QRP will be used to provide rationale and recommendations.

To maintain stream bank and stream channel integrity on all streams, wetlands and lakes that do not have a riparian reserve zone a minimum 5 m machine free zone will be established with the exception of designated crossings. Construction of the designated crossings will be done in a manner that waste and overburden is disposed of outside the 5m zone. Trees within the RMZ will be felled and yarded away from streams where practicable.

5.2.5 Fish Habitat in Fisheries Sensitive Watersheds

Objective: To conserve, at the landscape level, the water quality, fish habitat, and

biodiversity associated with those riparian areas, without unduly reducing the

supply of timber.

<u>Legal Reference:</u> FPPR sec. 8.1

Applicable FDU: None

This objective is not applicable as there are no fisheries sensitive watersheds within the holder's forest development units.

5.2.6 Water in Community Watersheds

Objective: The objective set by government for water being diverted for human

consumption through a licensed waterworks in a community watershed is to prevent the cumulative hydrological effects of primary forest activities within the community watershed from resulting in a material adverse impact on the quantity of water or the timing of the flow of the water from the waterworks, or the water from the waterworks having a material adverse impact on human health that cannot be addressed by water treatment required under an

enactment, or the license pertaining to the waterworks.

Legal Reference: FPPR sec. 8.2

Applies to: All FDU's except the Arrow FDU, LU's N501 and N504

Results and Strategies

The holder will undertake to comply with FPPR sec. 59-63 and the following:

- 1. If within those community watersheds, the holder intends to harvest and build roads, a QRP will assess the risk of those activities causing:
 - a. Material that is known to be harmful to human health to be deposited in or transported to water diverted for human consumption by a licensed waterworks, or
 - b. An increase in sediment delivery to the intake or causing sediment that is harmful to human health to enter a stream, lake or wetland from which the water is being diverted for human consumption.
- 2. If risk is low based on a review of the relevant and available site specific hydrologic information, the commitments below are not required.
- 3. If the risk is moderate or high based on the same criteria as in the low based above, the holder will:
 - a. Before the commencement of harvesting or road construction, ensure that the 'hydrologic assessment**', including cumulative effects, be carried out by a QRP.
 - b. Evaluate the recommendations of the hydrologic assessment**,
 - c. Ensure that, in the opinion of a qualified registered professional, the design of the cutblocks and roads is consistent with the results of the hydrologic assessment.
 - ** For the purpose of the Strategy in this section 'Hydrologic Assessment' is a professional level analysis, completed by a QRP, of existing and/or potential forest development related effects on water and water related resources conducted at the site or watershed level which will include one or more of the following:
 - Overview of the watershed including creek morphology
 - Watershed report card (GIS analysis)
 - Cumulative effects of past and proposed activities
 - Hydrologic risks of proposed development
 - Specific recommendations for hazard mitigation
 - Drainage Plan for roads

5.2.7 Wildlife and Biodiversity – Landscape Level

<u>Objective</u>: 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.

Legal Reference: FPPR sec. 9

Relates to: s 5.1.4 of this document

Results and Strategies

Pursuant to objective 4 of the KBHLPO, when the holder plans and designs harvesting, the holder will undertake to comply with sections 64 and 65 of the FPPR, except the 3m minimum height will be changed to 2.5m in s. 65(3)(a) and s. 65(3)(b)(ii).

This reduced 'green-up' height will not apply to community watersheds and visually sensitive areas.

5.2.8 Wildlife and Biodiversity – Stand Level

Objective: The objective set by government for wildlife and biodiversity at the stand level

is, without unduly reducing the supply of timber from British Columbia's

forests, to retain wildlife trees.

<u>Legal Reference:</u> FPPR sec. 9.1

Results and Strategies

The holder will undertake to comply with FPPR sec. 66 and 68.

The holder will undertake to comply with FPPR sec. 67 with the following exceptions:

- The holder may use trees in the wildlife tree retention area to facilitate harvesting (i.e. for a 'tail hold')
- Felling and removal of a tree that is a safety hazard.
- In the opinion of a QRP:
 - Felling and removal of a tree(s) that has been windthrown or damaged by fire/insect/disease, unless that tree has significant wildlife habitat value.
 - If a wildlife tree retention area is removed an alternate area of equal size within or adjacent to the block will be located with similar wildlife attributes.

Trees of all species occurring within FDU's may be selected as wildlife trees. Selection may favor trees that provide valuable wildlife tree attributes including signs of internal decay, trees with forks, large rotten branches, lose or cracked bark, recent scars, active wildlife use, existing cavities, nest trees, veteran trees and other large wind firm trees with poor form for sawlogs.

Forest Cover and Wildlife Habitat Attributes:

Preference will be given to locating wildlife tree retention area in stands that contain or have a good likelihood of developing valuable wildlife tree attributes as described above. To maintain biodiversity, an attempt will be made to preserve representation of all tree species found throughout forest development units and focus on riparian management area, ungulate winter range, old growth management area and other areas where harvesting constraints provide the best long term potential for stands to develop wildlife tree attributes associated with advanced age. Root disease centers may also be selected to provide a continuing supply of dead and dying trees to maintain coarse woody debris and biodiversity associated with stand openings. Sites with habitat features such as nesting, roosting, denning, spawning and squirrel middens may also be selected to provide protection of habitat critical to wildlife survival.

5.2.9 Visual Quality

Objective: This objective set by government does not contain specific text within the

FPPR as specified in other objectives set by government. This objective set by government has a corresponding objective as contained in the KBHPLO and Selkirk Forest District Level Visual Quality Objectives established prior to October 24, 2002, continued under Section 181 of FRPA and Section 7 of the

GAR.

<u>Legal Reference:</u> FPPR s. 9.2

Relates to: Sec. 5.1.9, 5.3.1 and 5.4.2 of this document.

Arrow FDU: New scenic areas and Visual Quality Objectives for the Arrow Boundary Forest

District were established Dec 31, 2005 by the District Manager under GAR s. 7;

hence the objective in FPPR s. 9.2 no longer applies.

Kootenay Lake FDU: In accordance with GAR 17 the scenic areas and subsequent visual quality

classes (VQO's) established by the District Manager's letter dated July 12, 1999 are in-place; hence the objective in FPPR s. 9.2 no longer applies.

5.2.10 Cultural Heritage Resources

Objective: To conserve, or, if necessary, protect cultural heritage resources that are the

focus of a traditional use by an aboriginal people that is of continuing

importance to that people, and not regulated under the Heritage Conservation

Act.

<u>Legal Reference:</u> FRPA, sec. 10.

Results and Strategies

The license holder is committed to continual information sharing and will refer all forest development plans with the appropriate First Nations. A written notification with a map, illustrating the location of planned forest development will be referred to the First Nation as indicated in the Consultative Areas Database. The objective of this notice is to provide First Nations with an opportunity to identify areas of concern to ensure that concerns are addressed to the extent practicable prior to development of an area of crown land allocated for the license holder's forest development activities. The license holder will document and keep on record any cultural heritage resource information provided by the First Nations, this will include how planned activities will or will not accommodate identified heritage resources. Any cultural heritage resource information received will be kept confidential.

If any evidence of cultural heritage resources are observed, becomes known, or is brought to the license holder's attention, the appropriate archaeological / heritage authority and First Nations, if appropriate, will be consulted. A reasonable effort, to the extent practicable, may be made to conserve or protect the cultural heritage resource before forest development proceeds.

The current Archeology Overview Assessment model illustrates polygons with moderate and high potential in both the FDU's. The license holder will carefully consider all harvest activities on areas with Archeology Overview Assessment polygons and will seek the advice of a QRP before proceeding with activities that cause the license holder concern.

It is understood that there is always a limited possibility that unknown archaeological sites exist in the FDU's. The Heritage Conservation Act protects both known and unknown archaeological sites. If an archaeological site is encountered during operations, activities will be halted immediately, and attempts will be made within 5 business-days to contact the appropriate archaeological/heritage authority and First Nations, if appropriate.

The license holder is not in a position to decide which of the First Nations with asserted traditional territory have greater strength of claim and will not endorse one First Nation over the others. There are multiple First Nations asserting traditional territory over the Arrow and Kootenay Lake Timber Supply Area as listed on the government Consultative Areas Database.

The license holder respects all of the First Nation's Aboriginal Interests equally, and will work towards fostering productive long-term relationships.

5.3 Objectives Prescribed Under the Government Actions Regulation (GAR)

In relation to FPPR sec. 10 and GAR's 5 and 11, the Minister has not identified any resource features or wildlife habitat features.

5.3.1 Visuals

<u>Legal Reference:</u> GAR 's 7 and 17

Relates to: s. 5.1.9, 5.2.9 and 5.4.2 of this document

Results and Strategies

In the Arrow FDU, subject to when the holder plans and designs harvesting and road construction, the holder will comply with the visual quality objectives (VQO's) set by GAR 7 dated Dec. 31, 2005

In the Kootenay Lake FDU, subject to when the holder plans and designs harvesting and road construction, the holder will comply with the visual quality objectives (VQO's) set by GAR 17 that establishes the VQO's for scenic areas.

The strategy in both FDU's does not apply when harvesting plans are for the purpose of addressing Forest Health Factors such as fire, insects, disease, and blowdown salvage operations. When this occurs, harvesting will use, to the extent practicable, good principles of visual design and achieve the required VQO in the shortest possible timeframe and will not exceed the Visual Quality Objective by more than 1 class.

The holder will conduct a Visual Impact Assessment for planned developments that are located in an area with a Visual Quality Objective prior to applying for a cutting permit. Visual modification on a perspective scale will follow the guidance and strategies described in the Visual Impact Assessment Guidebook (2nd. Ed., January 2001) for those areas that are deemed to be located within a Visual Quality Objective of Preservation (P), Retention (R), Partial Retention (PR), or Modification (M). Management of visual quality will combine recommended percent alteration thresholds and legal definitions as per FPPR section 1.1 with cutblock design and in-block retention of standing timber to achieve the established Visual Quality Objective.

5.3.2 Ungulate Winter Range

Legal Reference: GAR 's 9(2) & 12(1)

Relates To: s 5.2.3.2 of this document

Results and Strategies

The holder will undertake to comply with practices consistent with Order – Ungulate Winter Range #U-4-001 (signed Dec. 13, 2005).

5.3.3 Wildlife Habitat Areas

Objective: The minister responsible for the Wildlife Act by order may establish an area as

a wildlife habitat area if satisfied that special management has not otherwise

been provided for under Government Actions Regulations or another

enactment, and the area is necessary to meet the habitat requirements of a

category of species at risk or regionally important wildlife.

Legal Reference: GAR 's 9(2) & 10(1)

Applicable to: Arrow FDU: LU N508 – Grizzly Bear; and LU's N503 and N507 – Western

Screech Owl

Results and Strategies

The holder will undertake to comply with practices consistent with the most current ORDER – Grizzly Wildlife habitat Areas #4-093 and 4-094 and Western Screech Owl Wildlife Habitat Areas #4-113. 4-114 and 4-115.

5.3.4 Caribou

Legal Reference: GAR 's 9(2) & 12(1)

Relates To: s 5.1.3 of this document

Applicable to: Kootenay Lake FDU and Arrow FDU;LU N505.

Results and Strategies

The holder will undertake to comply with practices consistent with the most current ORDER – Ungulate Winter Range #U-4-012 Mountain Caribou – Southwest Kootenay Planning Unit.

5.3.5 Grizzly Bear

Legal Reference: GAR 's 9(2) & 12(1)

Relates To: s 5.1.3 of this document

Applicable to: Arrow FDU: LU N501, N502, N508 and N509

Results and Strategies

The holder will undertake to comply with practices consistent with the most current ORDER – General Wildlife Measure Order #8-373 Grizzly Bear.

The holder will collect field data to identify site characteristics of Grizzly Bear habitat. Utilizing this information a QRP will write a Grizzly Bear Rationale to show compliance with the General Wildlife Measures.

5.4 Objective for Items Listed in Section 181 of FRPA

5.4.1 Interpretive Forest Sites, Recreation Sites or Recreation Trails

Objective: All objectives in respect to an interpretive forest site, a recreation site, and a

recreation trail that were in effect immediately before the effective date are

continued as objectives under Forest and Range Practices Act.

Legal Reference: FRPA s. 180 & 181

Results & Strategies

In an effort to minimize impacts to interpretive forest sites, recreation sites or recreation trails, the licence holder will develop operational plans consistent with the management strategies established for the sites or trails. Where the established management strategies are not practicable given the circumstances or conditions to a particular area, an exemption under section 16 of the Forest Recreation Regulation, from the requirement of section 56 of the Forest Range and Practices Act (FRPA), will be applied for in relation to that area.

The licence holder will, to the extent practicable, where infringement on interpretive forest sites, recreation sites or recreation trails is likely, the local Recreation Officer and recreational group will be consulted and the following best management practices may be used to mitigate potential impacts.

- Signage will be erected notifying trail users of the industrial activity.
- Any direct impacts to access roads, sites or trails will be rehabilitated as close to their original state as possible.
- If feasible, harvesting is to occur during periods of low use.
- Primary forest activities will be carried out, to the extent practicable, by avoiding damage to vegetation other than commercial timber and the removal of safety hazards.

5.4.2 Visual Quality Objectives

Legal Reference: FRPA s. 180 & 181

Relates to: s. 5.1.9, 5.2.9 and 5.3.1 of this document.

FDU: Kootenay Lake

See section 5.2.1.1 of this document.

6. Measures

6.1 Measures for Preventing the Introduction or Spread of Invasive Plants

<u>Legal Reference:</u> FPPR s. 17, FRPA s. 47 and Invasive Plant Regulation

FDU: All

Measures

The following measures will be implemented to reduce the introduction and spread of invasive plants that may result from the license holder forest practices:

Training:

Annual invasive plant species training will be conducted to help field staff and contractors identify the priority invasive plants, as listed in the 'Best Practices for Preventing the Spread of Invasive Plants during Forest Management Activities, 2013 Edition':

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

Training will involve the identification of invasive plants, awareness of the location of known infestations currently in the Invasive Alien Plant Program, reporting requirements and best management practices.

ATCO participates in the Central Kootenay Invasive Plant committee and utilizes the committee to provide guidance on management strategies for targeted invasive plants.

Reporting:

Should any of the priority invasive plants be observed outside of known infestation areas, the license holder will use the Report-A-Weed website to inform the Ministry of Forest, Lands and Natural Resource Operations of the occurrence:

www.reportaweedbc.ca

In an effort to reduce the introduction and spread of invasive plants, during the planning process, the license holder will review the Invasive Alien Plant Program data for known infestations and their proximity to development areas. This information will be used to plan activities, whereby, operational plans will be developed and used to communicate with staff and contractors the location of known infestations. Where there are known infestations in proximity to development areas, best management practices will be outlined in operational plans to reduce the risk of creating new or spreading existing infestations. The license holder will ensure, where the introduction or spread of invasive plants is likely, the following best management practices will be used:

- If feasible avoid infested areas, otherwise, work non-infested areas first and infested areas last.
- If feasible, work infested areas during the winter.
- Endeavour, to the extent practicable, equipment and clothing is invasive plant free by remove plant parts before leaving infested areas.
- Minimize soil disturbance.
- Within a year following disturbance on new permanent roads, but not exceeding two years, to reduce the available seedbed for invasive plants by grass seeding.
- Assure there is a 30% germination success of grass seeding.
- Grass seeding will be done in the spring and or fall when climatic conditions are best for seed catch.
- Obtain certified grass seed (Canada Common #1 or better) from reputable suppliers to ensure premium quality free of invasive plant seed.
- Establish well stocked stands of trees that will eventually suppress invasive plants.

6.2 Mitigating the Loss of Natural Range Barriers

Legal Reference: FPPR s. 18, FRPA s. 48

Measures

Before applying for roads and/or cutting permits the license holder will share information to range agreement tenure holders of proposed roads and cutblocks, which may remove or rendering ineffective natural range barriers. If a range agreement tenure holder indicates that a proposed road or cutblock will remove or render ineffective a natural range barrier, the license holder will, as soon as practicable:

- a) take reasonable efforts necessary to come to an agreement with the range agreement tenure holder to mitigate the effect of removing or rendering ineffective natural range barriers, and
- b) discuss potential mitigation plans with Ministry of Forests, Lands and Natural Resource Operations, and
- c) implement the measures.

Currently, the holder has no grazing or range tenures located on operating areas.

7. Additional FSP Information

7.1 Stocking Standards

<u>Legal Reference:</u> FPPR s. 16, 44, and 197

Results and Strategies

The licence holder elects to use the Arrow and Kootenay Lake District default stocking standards for both the Arrow and Kootenay Lake Forest Development Units.

Stocking standards are itemized in **Appendix II**.

FRPA section 197 elections for stocking standards has been enabled to allow for any forest development plan cutblock stocking standards to be amended to the applicable FSP stocking standards.

The licence holder intends to use the Chief Foresters and Kootenay Lake District default stocking standards, but when stocking standards have been achieved and neither the potential expression of forest health agents nor the development of competing vegetation is a concern, the licence holder may elect to eliminate the early free growing date through the approved variation process in RESULTS.

AWP acknowledges the MFLNRO is in the process of revising BEC and related stocking standards. Once the revised stocking standards have been approved, the holder will make an amendment to this FSP.

7.2 Cumulative Effect of Multiple FSP's

Legal Reference: FPPR s 19

Results and Strategies

Where applicable: FSP must address the cumulative effect of multiple FSP's in an area. The licence holder will communicate its intentions to other licensees and BC Timber Sales in areas

with multiple FSP's as to proactively address and resolve landscape unit level issues prior to cutting permit application. If the holders of a FSP, within an area with multiple FSP's, are unable to reach an agreement for sharing the responsibility to obtain results consistent with objectives set by government then request would be made to the minister to act under section 9 of the FRPA.

8. References

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Wildlife Act.

9. Appendices		
I. Arrow and Kootenay Lake FDU Maps	;	
About Manual Dandard 111	20	F
Atco Wood Products Ltd.	pg. 28	Forest Stewardship Plan (FSP)

II. Arrow and Kootenay Lake Stocking Standards

BGC		ID#	Regeneration Free Growing									
Classifica	tion		Spe			cking(i)		Regen	Assessr	nent	Min. Hei	ght(ii)
		Diameter	Con		Target 1			Delay	Earliest	Latest	Species	Ht
Zone/SZ	Series	Primary	Preferred (p)	Acceptable (a)	(w ell-	-spaced/l	ha)	(Max yrs)	(yrs)	(yrs)		(m)
ESSFdc1	01	1071	Sx PI	BI	1200	700	600	4	12	20	PI Others	1.6 0.8
	02	1072	PI	Sx	1000	500	400	7	15	20	PI Others	1.2 0.6
	03	1073	PI	Sx	1000	500	400	7	15	20	PI Others	1.2
	04	1074	PI Sx	ВІ	1200	700	600	4	12	20	PI	1.6
	05	1075	PI Sx	ВІ	1000	500	400	7	15	20	Others Pl	0.8 1.2
	06	1076	PI Sx	ВІ	1000	500	400	7	15	20	Others Pl	0.6 1.2 0.6
	07	1077	non-forested		-	_	_	-	-	_	Others -	-
ESSFwc1	01	1001	BI Se PI ⁷²	Cw Hw	1200	700	600	4	12	20	PI	1.6
	02	1002	PI Se BI	Cw Hw	1000	500	400	7	15	20	Others PI	0.8 1.2
	03	1003	BI Se PI ⁷²	Cw Hw	1200	700	600	4	12	20	Others PI	0.6 1.6
		405.	DI 0 =:72								Others	0.8
	04	1004	BI Se PI ⁷²	Cw Hw	1200	700	600	7	15	20	PI Others	1.6 0.8
ESSFwc4	05 01	1005 1011	non-forested BI Se PI ⁷²		1200	700	600	4	- 12	20	- Pl	1.6
ESSFWC4	UI	1011	DI Se FI		1200	700	000	4	12	20	Others	0.8
	02	1012	Se PI BI		1000	500	400	7	15	20	PI Others	1.2 0.6
	03	1013	Se Bl Pl		1000	500	400	7	15	20	PI	1.2 0.6
	04	1014	Se BI PI ⁷²		1200	700	600	4	12	20	PI	1.6 0.8
	05	1015	BI Se PI ⁷²		1200	700	600	4	12	20	PI	1.6 0.8
	06	1016	BI Se PI ⁷²		1200	700	600	4	12	20	PI	1.6 0.8
	07	1017	Se BI PI ⁷²		1000	500	400	4	12	20	PI	1.2 0.6
	08	1018	non-forested		-	-	-	-	-	-	-	-
ICHdw	1a	1021	Fd ⁵⁸ Lw PI ⁷¹ Py Cw ⁴²	BI ^{10, 13} Bg Pw ⁵⁷ Hw Sx	1200	700	600	7	12	15	PI, Lw Fd, Pw	2.0 1.4
											Others	1.0
	01b	1022	Fd ⁵⁸ Lw PI Py Cw Bg ⁵⁸	Sx Hw Pw ⁵⁷ BI ^{10, 13}	1200	700	600	7	12	15	PI, Lw Fd, Pw	2.0 1.4
				_							Others	1.0
	02	1023	Fd ⁵⁸ Lw Pl ⁷¹ Py	Cw Hw Pw ⁵⁷	1000	500	400	7	12	15	PI, Lw Fd, Pw	2.0 1.4
											Others	1.4
	03	1024	Fd ⁵⁸ Lw Bg ⁵⁸	PI Pw ⁵⁷	1200	700	600	4	9	15	PI, Lw	2.0
			Cw Sx	Hw BI ^{10, 13}							Fd, Pw	1.4
	0.4	1005	Fd ⁵⁸ Lw Bg ⁵⁸	PI BI ^{10,13} Pw ⁵⁷	1200	700	600	_		15	Others PI, Lw	1.0
	04	1025	Fd [®] Lw Bg [®] Cw Hw Sx	HIRI PW.	1200	700	600	4	9	15	Fd, Pw	2.0 1.4
											Others	1.0
ICHmw2	01	1031	Cw Sx ⁷¹ Hw Fd ⁵⁸ Lw Pl ⁷¹	Pw ⁵⁷ BI Py ^{14,23}	1200	700	600	4	9	15	PI, Lw Fd, Pw	2.0 1.4
	02	1032	non-forested								Others	1.0
	02	1032	non-torested Fd ⁵⁸ Lw Pl	Pw ⁵⁷ BI	1200	700	600	7	- 12	- 15	- Pl	2.0
	00	1000	Sx ^{42, 71} Hw	Cw Py ^{14,23}	1.200	, 00	300	'	'-	.0	Lw	2.0
				,							Fd, Pw	1.4
	0.4	1001	Ed58 L Dt 0, 71	Du 57 DLD 14 23	1000	700		_	40	45	Others	1.0
	04	1034	Fd ⁵⁸ Lw PI Sx ⁷¹ Cw Hw	Pw ⁵⁷ BI Py ^{14,23}	1200	700	600	7	12	15	PI Lw	2.0 2.0
			OWTIW								Fd, Pw	1.4
											Others	1.0

Ī	05	1035	Fd ⁵⁸ Lw Sx ⁷¹	BI PI Pw ⁵⁷	1200	700	600	4	9	15	PI	2.0
			Cw Hw								Lw	2.0
											Fd, Pw Others	1.4 1.0
	06	1036	Fd ⁵⁸ Lw Sx ⁷¹	BI PI Pw ⁵⁷	1200	700	600	4	9	15	PI	2.0
	00	1030	Cw Hw	DITTIW	1200	700	000	7		13	Lw	2.0
											Fd, Pw	1.4
											Others	1.0
	07	1037	Cw Hw Sx ⁷¹	BI Pw ⁵⁷	1000	500	400	4	9	15	PI	1.4
	0.0	4000	0 11 0 71	DI D. 57	4000	500	400			4.5	Others	0.8
	80	1038	Cw Hw Sx ⁷¹	BI Pw ⁵⁷	1000	500	400	4	9	15	PI Others	1.4 0.8
	09	1039	non-forested		-	_	-	-	_	-	-	-
ICHvk1	01	1041	Cw Sx Hw	Pw ⁵⁷ Yc ²³	1200	700	600	4	9	15	Pw	1.4
			Fd ^{14,58}	BI ²³							Fd	1.4
											Others	1.0
	03	1043	Fd ⁵⁸ Cw Sx Hw	Pw ⁵⁷ BI ²³	1200	700	600	4	9	15	Fd, Pw	1.4
	0.4	4044	1458	Pw ⁵⁷ Lw ^{14,23} Yc ²³	4000	700	000			4.5	Others	1.0
	04	1044	Cw Fd ^{14,58} Hw Sx	BI ²³	1200	700	600	4	9	15	Lw Fd, Pw	2.0 1.4
				DI							Others	1.4
	05	1045	Cw Sx Hw	BI Pw ⁵⁷ Yc ²³	1000	500	400	4	9	15	Pw	1.4
								•			Others	0.8
	06	1046	Cw Hw Sx	BI Pw ⁵⁷	1000	500	400	4	9	15	Pw	1.4
			44.50								Others	8.0
ICHwk1	01	1051	Cw Sx Hw Fd ^{14,58}	Pw ⁵⁷ Yc ²³ Pl ²³	1200	700	600	4	9	15	PI, Lw	2.0
				Lw ^{14,23} Bl ²³							Fd, Pw	1.4
	02	1052	non-forested		_		_	_		_	Others	1.0
	04	1054	Cw Sx Hw Fd ^{14,58}	Pw ⁵⁷ Pl ²³	1200	700	600	4	9	15	PI, Lw	2.0
	01	1001	OW CATHWILD	Lw ^{14,23} Bl ²³	1200	700	000			10	Fd, Pw	1.4
											Others	1.0
	05	1055	Cw Sx Hw Fd ^{14,58}	Pw ⁵⁷ Yc ²³	1200	700	600	4	9	15	PI, Lw	2.0
				Lw ^{14,23} Bl ²³							Fd, Pw	1.4
				57							Others	1.0
	06	1056	Cw Sx Hw	BI Pw ⁵⁷	1000	500	400	4	9	15	PI	1.4
	07	1057	Cw Sx Hw	BI Pw ⁵⁷	1000	500	400	4	9	15	Others PI	0.8 1.4
	07	1037	CW SX FIW	DIFW	1000	500	400	4	9	13	Others	0.8
	08	1058	Cw Sx Hw	BI PI ²³	1000	500	400	4	9	15	PI	1.4
											Others	8.0
	09	1059	non-forested	£7	-	-	-	-	-	-	-	-
IDF un	01	1061	Fd ⁵⁸ Lw Py	Cw Pw ⁵⁷ Sx	1200	700	600	7	12	15	PI, Lw	1.6
(based on IDFmw1)			PI ⁷¹ Bg ⁷¹								Fd, Pw Others	1.0 0.8
ibriliw i)	02	1062	Py Fd ⁵⁸	Lw Pl	600	400	400	7	12	15	PI, Lw	1.6
	02	1002	l Tyru	LWII	000	700	400	,	12	13	Fd	1.0
											Others	0.8
	03	1063	Fd ⁵⁸ Py Pl ⁷¹	Lw	1000	500	400	7	12	15	PI, Lw	1.6
											Fd	1.0
	0.4	4004	F 158 1 D171 D	D D 57	4000	500	400	_	40	4.5	Py	0.8
	04	1064	. Fd ⁵⁸ Lw Pl ⁷¹ Py	Bg Pw ⁵⁷	1000	500	400	7	12	15	PI, Lw Fd, Pw	1.6 1.0
											Others	0.8
	05	1065	PI ⁷¹ Sx ⁷¹ Fd ⁵⁸ Lw	Py Cw Pw ⁵⁷	1200	700	600	7	12	15	PI, Lw	1.6
	-		Bg ⁵⁸	,						-	Fd, Pw	1.0
											Others	8.0
	06	1066	Sx ⁷¹ Fd ⁵⁸ Lw Bg ⁵⁸	PI Cw Pw ⁵⁷	1200	700	600	4	9	15	PI, Lw	1.6
											Fd, Pw	1.0
											Others	8.0

			Atco Lumb	er Ltd.'s "One	- Off" S	tockin	ıg St	andard	<u>s</u>			
ESSF wc1	01	1108	BI PI Sx Min Inter-Tree Dist	Cw Fd Lw is 1.7 meters	1200	700	600	4	12	20	PI Lw Fd	1.6 1.1
	01	1109	PISxLw	BI Fd Cw	1200	700	600	4	12	20	Others PI Lw Fd	0.8 1.6 1.1
ICHdw	01a	1123	Fd Lw Pl Py	Bg Cw Hw Bl Sx Pw	1200	700	600	4	9	15	Others PI Lw Pw Fd	0.8 2.0 1.4
	01a	1126	Fd ⁵⁸ Lw Pl Py Cw ⁴²	BI ^{10, 13} Bg Pw ⁵⁷ Hw Sx	1200	700	600	7	12	15	Others PI, Lw Fd, Pw	1.0 2.0 1.4
	01a	1178	Fd Lw Cw Pl Py Bg	BI Pw Hw Sx	Intermedi will remai				tand of Laye	er 1 trees	Others (min. of 25	1.0 0/ha)
ESSF wc1	02		PI Sx BI Lw	Cw Hw Fd	1000	500	400	7	15	20	PI Lw Others	1.2 0.6
	03		BI Se Lw PI ⁷²	Cw Hw Fd	1200	700	600	4	12	20	PI Lw Others	1.6

Stocking Requirements for Multi-Layered Stands

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	
Target from	Layer**	Stocking***		*	Target from	Layer**	Stocking***			
Table A standards		Target pa	MIN pa	MIN p	Table A standards		Target pa	MIN pa	MIN p	
(stems/ha)/Standards ID#		(w ell-	-spaced/h	na)	(stems/ha)/Standards ID#		(well-	spaced/h	ha)	
1200-(1201)	1	600	300	250	800-(1204)	1	300	150	150	
	2	800	400	300		2	400	200	200	
	3	1000	500	400		3	600	300	300	
	4	1200	700	600		4	800	400	400	
1000-(1202)	1	400	200	200	600-(1205)	1	300	150	150	
	2	600	300	250		2	400	200	200	
	3	800	400	300		3	500	300	300	
	4	1000	500	400		4	600	400	400	
900-(1203)	1	400	200	200	400-(1206)	1	200	100	100	
	2	500	300	250		2	300	125	125	
	3	700	400	300		3	300	150	150	
	4	900	500	400		4	400	200	200	

MIN - minimum

**Stand Layer Definition

Layer 1	Mature	trees >= 12.5 cm dbh
Layer 2	Pole	trees 7.5 cm to 12.4 cm dbh
Layer 3	Sapling	trees >= 1.3 m height to 7.4 cm dbh
Laver 4	Regeneration	trees < 1.3 m height

^{***} pa - preferred and acceptable species p - preferred species

Preferred and acceptable species and "Target from Table A standards' are as specified in Table A by biogeoclimatic ecosystem classification (BEC) site series.

^{*} Maximum regeneration delay is seven years. For a seven-year regeneration delay, the early free growing is 12 years and the late free growing is 15 years. Regeneration delay can be met immediately following harvest if the residual stand has no significant damage or pest problems and meets minimum stocking standards. If regeneration is achieved immediately following harvest, earliest free growing date is 12 months after completion of harvest and the latest date is 24 months after completion of harvest.

The following worksheets are included with this workbook (see tabs at the bottom of the screen):

Text -Additional standards, and instructions on using some Excel features associated with the guide.

DAR - Stocking standards for the Arrow Forest District.

Sgl Tree Sel'n - Stocking standards for the Arrow Forest District - single tree selection silvicultural system

Intermediate - Standards for the Arrow Forest District - Intermediate Cut, no regeneration objectives

Footnotes - contains definitions and footnotes for the stocking standards.

Additional Standards

Maximum Density (all areas)

Max (sph) - 10,000

Post Spacing (sph): Min=700, Max=1800 except PI where Max=2500

Reductions in stocking standards

Reductions in target/minimum stocking levels will be considered as separate amendments to the forest development plan on a site specific basis.

Minimum Inter-tree Distance

Trees must be the greater than or equal to the approved minimum inter-tree distance apart in order to be well spaced:

<u>Location/condition</u>
normal standard
to facilitate selection of superior planting microsites when sites have well
dispersed occurrence of standing water, well dispersed bedrock outcrops,
mechanically mounded sites, untreatable slash or failed plantations.
in extreme situations described above.

Completion of Plantability surveys is optional to provide justification for reducing MITD

Where site limiting factors have been identified as above, a Qualified Registered Professional (QRP) may write a rationale to reduce the MITD to 1.7 or 1.5 meters to allow for maximum optimization of superior microsites. The QRP wil utilize a rationale only in circumstances where the normal standard of 2.0 meters would not result in achievir the target stocking density.

Height of Trees Relative to Competing Vegetation

In addition to being at least the required minimum height, tree height must be greater than the following % relative to competing vegetation within a one metre radius of the trunk:

% Ht above competing veg.	Location/condition							
125%	ESSF IDF BGC zones							
150%	all other BGC zones							

Note: Free growing status will be evaluated using the MOF procedures in place at the time of assessment. Current procedures are defined in Appendix 9 of the Establishment to Free Growing Guidebook: Nelson Region, May 2000

Minimum Leave Tree Characteristics: Advanced Regeneration:

Advanced regeneration must meet the requirements of Appendix 10 of the Establishment to Free Growing Guidebook: Nelson Region, May 2000 to be acceptable.

Dispersed Strata (Moasic of site series)

Some areas will have more than one distinctly different site series occurring in a mosaic in which individual site series are either too small or too intricately dispersed to map separately. These areas should be mapped as a complex, with a label indicating the relative proportion of each site series, e.g. an area with 80% mesic sites, 10% dry sites, and 10% wet sites might be labelled 01_8 02_1 06_1 .

If describing the mosaic as one standards unit, the predominant site series will be used as the ecology label. Stocking standards for the predominant site series will be applied to the entire area.

If describing the mosaic as distinct identifiable ecostrata then different standards units and different stocking standards may be established.

Reducing the Early Free Growing Time Frame

Early free growing window may be reduced to a minimum of 5 years from establishment in the ICH and eight years from establishment in the ESSF zones where neither potential expression of forest health agents or the development of competing vegetation is a concern.

ESSFwc1/ICHmw2 Transition Sites

Where it is not practical to separate a transitional site into ESSF and ICH standards units the following shall apply:

From Table A stocking standards:

Preferred species shall be based on the ESSF standards.

Acceptable species shall be a combination of the ICH standards (preferred species) and the ESSF standards (acceptable species).

NOTE "Transition" on SP.

Stocking, Regen Delay and Free Growing requirements shall be based on the ESSF standards.

Seed or Vegetative Material Transfer

All variances will require District Manager approval per standing policy and procedure.

WORKSHEET FEATURES

Using the Macro Buttons on the Worksheet

Each regional worksheet has four macro buttons in the upper left-hand corner. Clicking on a button will initiate the following:

Show P/S/T - shows all columns of the worksheet, particularly the \underline{P} rimary, \underline{S} econdary and \underline{T} ertiary columns. **Show P/A** - shows only the \underline{P} referred and \underline{A} cceptable species columns (i.e. hides the PST columns). Clicking on either of the above buttons will result in the same column display on all regional worksheets. The worksheets will all display the upper left-hand corner of the worksheet.

Print P/S/T - prints the P/S/T view of the current regional worksheet in landscape orientation. **Print P/A** - prints the P/A view of the current regional worksheet in portrait orientation.

Please note: if the Macos are enabled and one of the above buttons is used, column C and D will be reformatted to narrow width. To view/print the columns column width for column C must be manually re-formatted.

Intermediate Cut, No Regeneration Objectives-Standards

Minimum Basal Area Retained (M ² /ha)	Standards ID #	Additional Criteria (all areas)
70 60 50 40 30 20	1181 1182 1183 1184 1185 1186	To qualify as an intermediate cut a minimum of 40 % of the stands original basal area must be retained.
15	1187	

Preferred and acceptable species to be retained are as specified in Table A by biogeoclimatic ecosystem classification (BEC) site series.

All layer one trees that meet mininimum leave tree characteristics considered preferred and count towards stocking.

Minimum leave tree characteristics:

Stands Age Class 6 and Younger:

Layer 1 trees must meet limits defined in the Tree Wounding and Decay guidebook (Feb 97)-Uneven Aged Management Objective to be acceptable.

All trees must meet criteria defined in Appendix 10, Establishment to Free Growing Guidebook: Nelson Region - May 2000.

Stands Age Class 7 and Older

Layer 1 trees must meet the limits defined in the Cruising Manual (effective December 5, 2002) for tree classes 1, 2, 5, and 8.

All trees must meet criteria defined in Appendix 10, Establishment to Free Growing Guidebook: Nelson Region - May 2000.

Minimum Strata Size for Reforestation Obligations:

Any contiguous strata greater than one hectare, that as a result of harvesting have a basal area less than 15 m2 per ha, shall be reforested as specified in Table A by BEC site series.

Administration info.		BGC		Regeneration Guide			Free Growing Guide								
		Classific	ation		Specie	Target MIN pa MIN p		Regen delay	Assessment Earliest Latest		ent	Heiaht	Minimum	% Tree	
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(well-s	spaced/h	a)	delay (max	(yrs)	(yrs)	Species	(meters)	inter-tree distance	over Brush
18000	Raseline	FSSFwc1	01	Bl Se	Plзл то зэ о зэ	1200	700	600	4	12	20	PI Others	1 6 0.8		125
18001	Baseline w reduced mitd	ESSFwc1	01	Bl Se	PI34 _{Hw} T9,32 _{Cw} 9,32	1200	700	600	4	12	20	PI	1.6		125
												Others	0.8		
18002	PI moved to preferred	ESSFwc1	01	BI Se Pl34, 100	Сw55 нwТ9,32	1200	700	600	4	12	20	PI	1.6	2.0	125
												Others	0.8		
18003	PI moved to preferred &. reduced MITD	ESSFwc1	01	BI Se Pl34, 100	Сw55 нwТ9,32	1200	700	600	4	12	20	PI	1.6	1.7	125
	reduced Will D											Others	0.8		
18004	Transition to ICHmw2	ESSFwc1	01	BI Se Lw9,32 Fd, 9,32 Pw, Cw9,32 HwT9,32		1200	700	600	4	12	20	PI Pw	1.6	2.0	125
				PI ¹⁰⁰								Lw	1.6		
												Fd	1.0		
												Others	0.8		
18005	Transition w. reduced MITD	ESSFwc1	01	BI Se Lw9,32 Fd, 9,32 Pw, _{Cw} 9,32 _{Hw} T9,32		1200	700	600	4	12	20	PI Pw	1.6	1.7	125
				PI ¹⁰⁰								Lw	1.6		
												Fd	1.0		
												Others	0.8		
18006	Baseline	ESSFwc1	02	PI Se	BI Cw ^{T55} Pa ^T	1000	500	400	7	15	20	PI	1.2	2.0	125
												Others	0.6		
18007	Baseline w. reduced mitd	ESSFwc1	02	PI Se	BI Cw ^{T55} Pa ^T	1000	500	400	7	15	20	PI	1.2	1.7	125
												Others	0.6		

Adn	ninistration info.	BG	С		Regeneration	Guide					Fre	ee Grov	ving G	uide	
		Classific	ation	s	Species	Target I	MIN pa	a NIM	Regen		ssessme	ent	Height	Minimum	% Tree
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(well-s	spaced/ha		delay (max	Earliest (yrs)	Latest (yrs)	Species	(meters)	inter-tree distance	over Brush
18008	BI moved to preferred	ESSFwc1	02	PI Se BI ¹⁰³	Cw ^{T55} Pa ^T	1000	500	400	7	15	20	PI	1.2	2.0	125
												Others	0.6		
18009	BI moved to preferred & reduced mitd	ESSFwc1	02	PI Se BI ¹⁰³	Cw ^{T55} Pa ^T	1000	500	400	7	15	20	PI	1.2	1.7	125
												Others	0.6		
18010	Baseline	ESSFwc1	03	BI Se	Сwт9, 32 Hwт9,32 PI ^{Т34}	1200	700	600	4	12	20	PI	1.6		125
												Others	8.0		
18011	Reduced mitd	ESSFwc1	03	BI Se	Сwт9, 32 Hwт9,32 Pl ^{T34}	1200	700	600	4	12	20	PI	1.6	1.7	125
10011	rioddod iillid	2001 1101	00	5100	2.1.1, 12.1.1.1,12.1.1	1200	7.00	000		'-	20	Others	0.8		120
18012	Baseline	ESSFwc1	04	BI1, 32 se1,32	PI _{1,34} Hw ^{T32}	1200	700	600	7	15	20	PI	1.6	2.0	125
												Others	0.8		
18013	Reduced mitd	ESSFwc1	04	BI1, 32 se1,32	PI _{1,34} Hw ^{T32}	1200	700	600	7	15	20	PI	1.6	1.7	125
												Others	8.0		
18014	Baseline	ESSFwc4	01	BI Se	Pl ³⁴	1200	700	600	4	12	20	PI	1.6		125
												Others	8.0		
18015	Reduced mitd	ESSFwc4	01	BI Se	Pl ³⁴	1200	700	600	4	12	20	PI Others	1.6 0.8	1.7	125
												Others	0.0		
18016	PI moved to preferred	ESSFwc4	01	BI Se _{Pl} 34,100		1200	700	600	4	12	20	PI	1.6	2.0	125
	·											Others	0.8		
													3.0		
18017	PI moved to preferred &	ESSFwc4	01	BI Se _{Pl} 34,100		1200	700	600	4	12	20	PI	1.6	1.7	125
	reduced mitd											Others	0.8		

Adm	ninistration info.	BGC	;		Regeneration	Guide					Fre	e Grov	ving G	uide	
		Classifica	ation		Snecies	Target I	MIN pa N	q NIN	Regen		ssessme	ent	Height	Minimum	% Tree
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(well-s	spaced/ha)	delay (max	Earliest (yrs)	Latest (yrs)	Species	(meters)	inter-tree distance	over Brush
18018	Raseline	FSSFwc4	02	Se ы34.100	BIT.54 Pa ^T	1000	500	400	7	15	20	PI Others	1 2 0.6		125
18019	Reduced mitd	ESSFwc4	02	Se _{Pl} 34,100	BIT,54 Pa ^T	1000	500	400	7	15	20	PI Others	1.2 0.6		125
18020	Baseline	ESSFwc4	03	Se Bl	Pl ³⁴	1000	500	400	7	15	20	PI Others	1.2 0.6		125
18021	Baseline w. reduced mitd	ESSFwc4	03	Se Bl	Pl ³⁴	1000	500	400	7	15	20	PI Others	1.2 0.6		125
18022	PI moved to preferred	ESSFwc4	03	Se BI _{Pl} 34,100		1000	500	400	7	15	20	PI	1.2		125
												Others	0.6		
18023	PI moved to preferred & reduced mitd	ESSFwc4	03	Se Bl _{Pl} 34,100		1000	500	400	7	15	20	PI Others	1.2 0.6		125
18024	Baseline	ESSFwc4	04	Se Bl	Pl ³⁴	1200	700	600	4	12	20	PI Others	1.6 0.8		125
18025	Baseline w. reduced mitd	ESSFwc4	04	Se Bl	Pl ³⁴	1200	700	600	4	12	20	PI	1.6		125
18026	PI moved to preferred	ESSFwc4	04	Se Bl _{Pl} 34,100		1200	700	600	4	12	20	Others PI	0.8		125
												Others	0.8		
18027	PI moved to preferred & mitd reduced	ESSFwc4	04	Se BI _{Pl} 34,100		1200	700	600	4	12	20	PI Others	1.6 0.8		125

Adm	ninistration info.	BG	С		Regeneration	Guide					Fre	ee Grov	ving G	uide	
		Classific	ation	-	Species	Target	MIN pa	q NIM	Regen		ssessm	ent	Height	Minimum	% Tree
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(well-s	spaced/ha	a)	delay (max	Earliest (yrs)	Latest (yrs)	Species	(meters)	inter-tree distance	over Brush
18028	Baseline	ESSFwc4	05	BI Se		1200	700	600	4	12	20	All	0.8	2.0	125
18029	Baseline w. reduced mitd	ESSFwc4	05	BI Se		1200	700	600	4	12	20	All	0.8	1.7	125
18030	Baseline	ESSFwc4	06	Bi1,32 Se1,32		1200	700	600	4	12	20	All	0.8	2.0	125
18031	Baseline w. reduced mitd	ESSFwc4	06	BI1,32 Se1,32		1200	700	600	4	12	20	All	0.8	1.7	125
18032	Baseline	ESSFwc4	07	BI1,32 Se1,32	PI1,34	1000	500	400	4	12	20	PI Others	1.2 0.6		125
18033	Baseline w. reduced mitd	ESSFwc4	07	Bi1,32 Se1,32	PJ1,34	1000	500	400	4	12	20	PI	1.2	1.7	125
												Others	0.6		
18034	Baseline	ESSFwm	01	BI Se Fd ¹⁴ Lw ¹⁴	Pl ³⁴	1200	700	600	4	12	20	Lw PL Others	2.0 1.0	2.0	125
18035	Baseline w. reduced mitd	ESSFwm	01	BI Se Fd ¹⁴ Lw ¹⁴	Pl ³⁴	1200	700	600	4	12	20	Lw PL	2.0	1.7	125
												Others	1.0		
18036	PI moved to preferred	ESSFwm	01	BI Se Fd ¹⁴ Lw ¹⁴		1200	700	600	4	12	20	Lw PL	2.0	2.0	125
				111111111111111111111111111111111111111								Others	1.0		
18037	PI moved to preferred & reduced mitd	ESSFwm		BI Se Fd ¹⁴ Lw ¹⁴ _{Pl} 100,34		1200	700	600	4	12	20	Lw PL	2.0	1.7	125
												Others	1.0		
18038	Baseline	ESSFwm	02	Se Pl ³⁴	BI Hwt14Pat _{Pw} t9,14,31	1200	700	600	7	15	20	PI	2.0	2.0	125
												Others	1.0		
I	A+ \A	lood Produ			ng 39					tewards	-i- Dl	(ECD)			l

Adm	ninistration info.	BG	С		Regeneration	Guide					Fr	ee Grov	ving G	uide	
		Classific	ation		Species	Target	MIN pa	q NIM	Regen		ssessm	ent	Height		% Tree
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(well-s	spaced/ha	a)	delay (max	Earliest (yrs)	Latest (yrs)	Species	(meters)	inter-tree distance	over Brush
18039	Baseline w. reduced mitd	ESSFwm	02	Se Pl ³⁴	BI Hwт14Paт _{Рw} Т9,14,31	1200	700	600	4	12	20	PI	2.0	1.7	125
	mita											Others	1.0		
18040	Baseline	ESSFwm	03	_{FD} 9,32 Lw 9,32 Se	BI PL34 _{Pw} 9,31,32, 49 _{Hw} T,9,32	1200	700	600	4	12	20	PI Pw	2.0	2.0	125
												Lw	2.0		
												Fd	1.4		
												Others	1.0		
18041	Baseline w. reduced mitd	ESSFwm	03	_{FD} 9,32 Lw 9,32 Se	BI PL34 _{Pw} 9,31,32, 49 HwT,9,32	1200	700	600	4	12	20	PI Pw	2.0	1.7	125
												Lw	2.0		
												Fd	1.4		
												Others	1.0		
18042	PI moved to preferred	ESSFwm	03	_{FD} 9,32 Lw 9,32 Se _{Pl} 34,100	BI _{Pw} 9,31,32, 49 _{Hw} T,9,32	1200	700	600	4	12	20	PI Pw	2.0	2.0	125
				FIG 1,100								Lw	2.0		
												Fd	1.4		
												Others	1.0		
18043	PI moved to preferred & reduced mitd	ESSFwm	03	_{FD} 9,32 Lw 9,32 Se _{Pl} 34,100	BI _{Pw} 9,31,32, 49 _{Hw} T,9,32	1200	700	600	4	12	20	PI Pw	2.0	1.7	125
												Lw	2.0		
												Fd	1.4		
												Others	1.0		
18044	Baseline	ESSFwm	04	BI Se	PI _{34 Hw} T,14	1200	700	600	4	12	20	PI	2.0	2.0	125
												Others	1.0		
18045	Baseline w. reduced mitd	ESSFwm	04	BI Se	Pl34 _{Hw} T,14	1200	700	600	4	12	20	PI	2.0	1.7	125
												Others	1.0		
18046	PI moved to preferred	ESSFwm	04	BI Se _{Pl} 34,100	HwT,14	1200	700	600	4	12	20	PI	2.0	2.0	125
										itewards!		Others	1.0		

Adn	ninistration info.	BG			Regeneration	Guide					Fr	ee Grov	wing G	uide	
		Classif	cation	S	necies	Target M	IN pa	a NIM	Regen delay	Δ s Earliest	sessmi	ent	Heiaht	Minimum	% Tree over
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(well-s _l	paced/ha	a)	delay (max	(yrs)	(yrs)	Species	(meters)	inter-tree distance	Brush
18047	PI moved to preferred & mitd reduced	ESSFwm	04	BI Se _{Pl} 34,100	HwT,14	1200	700	600	4	12	20	PI Others	2.0 1.0		125
Preliminar	y standards for ESSFd	lm													
18048	Baseline set 18048 to expire Ma	ESSFdm1	01	1 BI Se Fd ¹⁴ Lw ¹⁴ PI	1	1200	700	600	4	12	20	PI Lw Fd Others	2.0 1.4 1.0		125
18166	V2 Baseline	ESSFdm	01	Se, PI	BI, _{Hw} T,14 _{Fd} T,14 LwT,14,106	1200	700	600	4	12	20	PI Lw	2.0	2.0	125
					LW1,14,100							Fd	1.4		
												Others	1.0		
18167	Caribou zone only AND >1600m	ESSFdm	01	Se Pli, Bl	HwT,14 _{Fd} T,14 LW T,14,106	1200	700	600	4	12	20	PI Lw	2.0	2.0	125
												Fd	1.4		
												Others	1.0		
18049	Baseline w. reduced mitd	ESSFdm1	0′	1 BI Se Fd ¹⁴ Lw ¹⁴ PI		1200	700	600	4	12	20	PI Lw	2.0	1.7	125
	set 18049 to expire Ma	arch 2007										Fd Others	1.4 1.0		
18168	V2 Baseline w. reduced mitd	ESSFdm	01	Se, PI	BI _{Hw} T,14 _{Fd} T,14 _{Lw} T,14,106	1200	700	600	4	12	20	PI Lw	2.0	1.7	125
	reduced filled											Fd	1.4		
												Others	1.0		
18169	Caribou zone only AND >1600m w. reduced mitd	ESSFdm	01	Se Pli, Bl	HwT,14 _{Fd} T,14 LW T,14,106	1200	700	600	4	12	20	PI Lw	2.0	1.7	125
												Fd	1.4		
												Others	1.0		
						ll .				<u> </u>		(ECD)			

Adm	inistration info.	BG	3		Regeneration	Guide					Fr	ee Grov	ving G	uide	
		Classif	ication		Species	Target	MIN pa	MIN p	Regen		ssessm	ent	Height	Minimum	% Tree
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(well-	spaced/ha	a)	delay (max	Earliest (yrs)	Latest (yrs)	Species	(meters)	inter-tree distance	over Brush
18050	Baseline set 18050 to expire M	ESSFdm1 arch 2007	02	Se Pl	BI Hw ¹⁴ Pa _{Рм} 9.14.31	1200	700	600	4	15	20	PI Pw Others	2.0 1.0	2.0	125
18179 -no s	sV2 Baseline	ESSFdm	02	PI	Se 107, 32, 10, Bl, Lw14,106 Fd ¹⁴	1200	700	600	4	15	20	PI	2.0	2.0	125
												Others	1.0		
18171	Caribou zone only AND >1600m	ESSFdm	02	Se Pl Bl	Se 107, 32, 10 _{, Lw} 14,106 Fd ¹⁴	1200	700	600	4	15	20	PI	2.0	2.0	125
	7.1.1 <u>2</u> 1.000				Tu							Others	1.0		
18051	Baseline w. reduced mitd	ESSFdm1	02	Se Pl	BI Hw ¹⁴ Pa _{Pw} 9,14,31	1200	700	600	4	15	20	PI	2.0		125
	set 18051 to expire M	arch 2007										Others	1.0		
18172	V2 Baseline w. reduced mitd	ESSFdm	02	PI	Se 107, 32, 10, BI, LW14,106 Fd ¹⁴	1200	700	600	4	15	20	PI	2.0		125
												Others	1.0		
18173	Caribou zone only AND >1600m w. reduced mitd	ESSFdm	02	Se Pl Bl	Se 107, 32, 10 _{, Lw} 14,106 Fd ¹⁴	1200	700	600	4	15	20	PI	2.0	1.7	125
					•							Others	1.0		
18052	Baseline	ESSFdm1	03	Fd9,32 LW9,32 Se, PI	BI _{Pw} 9,31,32,49 _{Hw} T,9,32	1200	700	600	4	12	20	PI Pw	2.0	2.0	125
	set 18052 to expire M	arch 2007										Lw	2.0		
												Fd Others	1.4 1.0		
18174	V2 Baseline	ESSFdm	03	PI	Se107 _{Lw} T,14, 106 FDT,14 HwT,14, BI	1200	700	600	4	12	20	PI	2.0	2.0	125
					,., =:							Lw	2.0		
												Fd Others	1.4 1.0		
												Others	1.0		

Adm	ninistration info.	BGC			Regeneration	Guide					Fr	ee Grov	ving G	uide	
		Classific	ation	s	pecies	Target M	IN pa	a NIM	Regen delay		sessm	ent	Heiaht	Minimum inter-tree	% Tree
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(well-s	oaced/ha	a)	delay (max	(yrs)	Latest (yrs)	Species	(meters)	distance	over Brush
12175	Caribou zone only AND >1600m	ESSEdm	UЗ	DI ÇA RI	1T 14 106 ccT 14 HWT 14	1200	700	600	1	12	20	PI	2 0	2.0	125
												Lw	2.0		
												Fd Others	1.4 1.0		
18053	Baseline w. reduced mitd	ESSFdm1	03	Fd9,32 Lw9,32 Se, PI	BI _{Pw} 9,31,32,49 _{Hw} T,9,32	1200	700	600	4	12	20	PI Pw	2.0	1.7	125
	set 18053 to expire in											Lw	2.0		
	March 2007											Fd	1.4		
												Others	1.0		
18176	V2 Baseline w.	ESSFdm	03	PI	Se107 _{Lw} T,14, 106 FDT,14	1200	700	600	4	12	20	PI	2.0	1.7	125
	reduced mitd				Нwт,14, ВI								0.0		
												Lw Fd	2.0 1.4		
												Others	1.0		
18177	Caribou zone only	ESSFdm	03	Pl Se Bl	LwT,14, 106 FDT,14 HW T,14	1200	700	600	4	12	20	PI	2.0	1.7	125
10177	AND >1600m w. reduced mitd.	2007 4			LW1,14, 100 FB1,14 T TW1,14	.200	. 55		j						
	Todassa milai											Lw	2.0		
												Fd	1.4		
												Others	1.0		
18054	Baseline set 18054 to expire	ESSFdm1	04	BI Se PI ¹⁰¹		1200	700	600	4	12	20	PI Others	2.0 1.0		125
	March 2007														
18178	V2 Baseline	ESSFdm	04	Se PI	BI, _{Hw} T,14	1200	700	600	4	12	20	PI	2.0		125
												Others	1.0		
18179	Caribou zone only AND >1600m	ESSFdm	04	Se PI BI	HwT,14	1200	700	600	4	12	20	PI	2.0	2.0	125
	VIAD > 1000III											Others	1.0		
l		lood Brodu			ng 42					towardch					l

Adn	ninistration info.	BGC)		Regeneration	Guide	!				Fr	ee Grov	ving G	uide	
		Classific	ation		Species	Target	MIN pa	MIN p	Regen		ssessm	ent	Height	Minimum	% Tree over
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(well	-spaced/h		delay (max	Earliest (yrs)	(yrs)	Species	(meters)	inter-tree distance	Brush
18055	Baseline w. reduced mitd set 18055 to expire March 2007	ESSFdm	04	BI Se PI ¹⁰¹		1200	700	600	4	12	20	PI Others	2.0 1.0		125
18180	V2 Baseline w. reduced mitd	ESSFdm	04	Se Pl	BI, _{Hw} T.14	1200	700	600	4	12	20	PI Others	2.0		125
18181	Caribou zone only AND >1600m w. reduced mitd.	ESSFdm	04	Se PI BI	HwT.14	1200	700	600	4	12	20	PI	2.0	1.7	125
												Others	1.0		
18182	V2 Baseline	ESSFdm	05	SE	PI, BI, _{Hw} T,14	1000	500	400	4	12	20	PI	2.0	2.0	125
												Others	1.0		
18183	Caribou zone only AND >1600m	ESSFdm	05	Se BL	PI, _{Hw} T,14	1000	500	400	4	12	20	Pl	2.0	2.0	125
												Others	1.0		
18184	V2 Baseline w. reduced mitd	ESSFdm	05	SE	PI, BI, _{Hw} T,14	1000	500	400	4	12	20	PI Others	2.0		125
18185	Caribou zone only AND >1600m w. reduced mitd	ESSFdm	05	Se BL	PI, _{Hw} T,14	1000	500	400	4	12	20	PI	2.0	1.7	125
												Others	1.0		
18186	V2 Baseline	ESSFdm	06	Se BL Pl ¹		1000	500	400	4	12	20	PI Others	2.0 1.0		125

Adm	ninistration info.	BG			Regeneration	Guide					Fr	ee Grov	wing G	uide	
		Classific	ation	Sp	ecies	Target N	/IN pa	MIN p	Regen		sment		Height	Minimum inter-tree	% Tree over
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(well-s	paced/ha		delay (max	Earliest (yrs)		Species	(meters)	distance	Brush
18187	V2 Baseline with reduced mitd.	ESSFdm	06	Se BL PI ¹		1000	500	400	4	12	20	PI	2.0	1.7	125
End of ESS	Fdm standards											Others	1.0		
atort of ICLI	dm standards														
18188	Baseline	ICHdm	01	Lw Fd Pl	Cw ¹⁰ Sx10 _{Pw} T,31 BgT,10 _{Hw} T,10 _{ві} Т,10	1200	700	600	4	12	20			2.0	150
18189	Basline w. reduced mitd	ICHdm	01	Lw Fd Pl	Cw ¹⁰ Sx10 _{Pw} T,31 _{Bg} T,104 _{Hw} T,10 _{BI} T,10	1200	700	600	4	12	20			1.7	150
18190	Baseline	ICHdm	03	PI Lw Fd	Sx10,13 _{Bi} T,10 _{Cw} T,10	1200	700	600	4	12	20			2.0	150
18191	Baseline w. reduced mitd	ICHdm	03	PI Lw Fd	Sx10,13 gT,10 CwT,10	1200	700	600	4	12	20			1.7	150
18192	Baseline	ICHdm	04	Lw ³² PI Cw ³² Sx Fd ³²	Hw BI _{Pw} T,31	1200	700	600	4	12	20			2.0	150
18193	Baseline w. reduced mitd	ICHdm	04	Lw ³² Pl Cw ³² Sx Fd ³²	Hw BI _{Pw} T,31	1200	700	600	4	12	20			1.7	150
18194	Baseline	ICHdm	05	Cw ³² Hw Sx	BI Fd ³² Lw ³² PI ^T									2.0	150
18195	Baseline	ICHdm	05	Cw ³² Hw Sx	Bl Fd ³² Lw ³² Pl ^T									2.0	150

Adr	ninistration info.	BG	C		Regeneration	Guide					Fr	ee Grov	wing G	Guide	
		Classif	ication	s	Species	Target M	IIN pa	a NIM	Regen	🕰	ssessme			Minimum	% Tree
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(well-s	paced/ha	a)	Regen delay (max	Earliest (yrs)	(yrs)	Species	(meters)	inter-tree distance	over Brush
18196	Baseline	ICHdm	06	Sx	BI PI ^{FdT,1,32} Cw ^{T32}									20	150
					/										
18197	Baseline	ICHdm	06	Sx	BI PI FdT,1,32 CwT32									2.0	150
					_{Hw} T,32										
End of ICH	dm standards														
18056	Baseline -dry variant	ICHdw	01a	Fd ⁵⁸ Lw Py Pw31,49,57	Bg ²⁸ PI ^{BIT,10,13,} Cw Hwt Sx _{10,13}	1200	700	600	7	12	20	PI Pw	2.0	2.0	150
					HWT 5X10,13							Lw	2.0		
												Fd	1.4		
												Others	1.0		
18057	Baseline -dry variant w. reduced mitd	ICHdw	01a	Fd ⁵⁸ Lw Py Pw31,49,57	Bg ²⁸ PI BIT,10,13, Cw HwT	1200	700	600	7	12	20	PI Pw	2.0	1.7	150
	w. reduced fillid				Sx10,13										
										•		Lw	2.0		
												Fd	1.4		
												Others	1.0		
18058	Sx, Pl, Cw moved to	ICHdw	012	Fd ⁵⁸ Lw Py ^{Pw31,49,57}		1200	700	600	7	12	20	PI Pw	2.0	2.0	150
10000	preferred-dry variant	TOTION	OTA	Sx,10,13, Cw ¹⁰² Pl	_{Bg} 28 _{Pw} 31,49 _{Bl} T,10,13, Hw ^T	1200	700	000	,	12	20	1 11 W	2.0	2.0	100
I												Lw	2.0		
												Fd	1.4		
												Others	1.0		
18059	Sx, PI, Cw moved to	ICHdw	01a	Fd ⁵⁸ Lw Py ^{Pw31,49,57}	Bg28 _{Рw} 31,49 вт,10,13,	1200	700	600	7	12	20	PI Pw	2.0	1.7	150
	preferred-dry variant & reduced mitd			Sx,10,13, Cw ¹⁰² PI	Hw^T										
										 		Lw	2.0		
										Stewardsh		Fd	1.4		

Adn	ninistration info.	BG	3		Regeneration	Guide					Fr	ee Grov	wing G	uide	
		Classific	ation	Spe	ecies	Target M	IIN pa	q NIM	Regen delay	A Earliest	ssessme	ent	Heiaht	Minimum inter-tree	% Tree over
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(well-s	paced/ha	1)	delay (max	(yrs)	(yrs)	Species	(meters)	distance	Brush
												Others	1.0		
18060	Baseline wet variant	ICHdw	01b	Fd ⁵⁸ LW _{Py} 9,14 _{Pw} 31,49,57 SX10,13, CW102 PI	Bg ^{BIT,10,13,} Hw	1200	700	600	7	12	20	PI Pw	2.0	2.0	150
												Lw	2.0		
												Fd	1.4		
												Others	1.0		
18061	Baseline wet variant w. reduced mitd	ICHdw	01b	Fd ⁵⁸ LW _{Py} 9,14 _{Pw} 31,49,57 Sx10,13, CW102 PI	Bg ^{BIT,10,13,} Hw	1200	700	600	7	12	20	PI Pw	2.0	1.7	150
										<u> </u>		Lw	2.0		
												Fd	1.4		
												Others	1.0		
18062	Baseline	ICHdw	02	Fd ⁵⁸ Lw Py	HwT,10,13 Cw ^T PI ^T	1000	500	400	7	12	20	PI Lw	1.4	2.0	150
												Fd	1.0		
												Others	0.8		
18063	Baseline w. reduced mitd	ICHdw	02	Fd ⁵⁸ Lw Py	Hwt,10,13 Cw ^T PI ^T	1000	500	400	7	12	20	PI Lw	1.4	1.7	150
												Fd	1.0		
												Others	0.8		
18064	PI moved to preferred	ICHdw	02	Fd ⁵⁸ Lw Py Pl ^T	Hwt,10,13 Cw ^T	1000	500	400	7	12	20	PI Lw	1.4	2.0	150
										L L		Fd	1.0		
												Others	0.8		
18065	PI moved to preferred & reduced mitd	ICHdw	02	Fd ⁵⁸ Lw Py Pl ^T	Hw _T ,10,13 Cw ^T	1000	500	400	7	12	20	PI Lw	1.4	1.7	150
	. oaaooaa									_		Fd	1.0		-
												Others	0.8		
18066	Baseline	ICHdw	03	Fd1,32,58 LW1,32 Sx CW Pw31,49,57	Bg ³² Hw ³² Pl Bl ^T	1200	700	600	4	9	20	PI Pw	2.0	2.0	150
										•		Lw	2.0		
												Fd	1.4		

Adn	ninistration info.	BG	C		Regeneration	Guide					Fr	ee Grov	ving G	iuide	
		Classific	ation	Sp	ecies	Target M	IIN pa	q NIM	Regen delay	Farliant A	ssessm	ent	Heiaht	Minimum	% Tree
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(well-s	paced/ha	a)	delay (max	Earliest (yrs)	(yrs)	Species	(meters)	inter-tree distance	over Brush
												Others	1.0		
18067	Baseline w. reduced mitd	ICHdw	03	Fd1,32,58 LW1,32 SX CW Pw31,49,57	Bg ³² Hw ³² Pl Bl ^T	1200	700	600	4	9	20	PI Pw	2.0	1.7	150
												Lw	2.0		
												Fd	1.4		
												Others	1.0		
18068	Baseline	ICHdw	04	Cw ³² Sx _{Fd} 1,32,58 Lw1,32 _{Pw} 1,31,49,57	$Bg_{1,32} PI^1Hw^{32} BI^T$	1200	700	600	4	9	20	PI Pw	2.0	2.0	150
				LW 1921 H. 1921 1 Legel								Lw	2.0		
												Fd	1.4		
												Others	1.0		
18069	Baseline w. reduced mitd	ICHdw	04	Cw ³² Sx _{Fd} 1,32,58 _{Lw} 1,32 _{Pw} 1,31,49,57	$Bg_{1,32} PI^1Hw^{32} BI^T$	1200	700	600	4	9	20	PI Pw	2.0	1.7	150
										_		Lw	2.0		
												Fd	1.4		
												Others	1.0		
18070	Baseline	ICHmk1	01	Fd9,14,32 LW9,14,32 _{Pl} Sx10,13	BI10,13 Cw10,13,32 Py9,14	1200	700	600	7	12	20	PI Lw	2.0	2.0	150
										•		Fd	1.4		
												Others	1.0		
18071	Baseline & reduced mitd	ICHmk1	01	Fd9,14,32 LW 9,14,32 ^{pl} Sx10,13	BI10,13 cw10,13,32 Py9,14	1200	700	600	7	12	20	PI Lw	2.0	1.7	150
				Sx 10, 13						<u> </u>		Fd	1.4		
												Others	1.0		
18072	Baseline	ICHmk1	ດວ	Fd Pl		1200	700	600	7	12	20	PI Lw	1.4	2.0	150
10012	Dascille	IOI IIIIK I	02		S _X 10,13 _{BI} T10,13 _{Py} 9,14	1200	700	000	'	12	20	Fd	1.4		150
												Others	1.0		
										_	_				
18073	Baseline w. Reduced mitd	ICHmk1	02	Fd Pl	S _X 10,13 _{BI} T10,13 _{Py} 9,14	1200	700	600	7	12	20	PI Lw	1.4	1.7	150
		/ood Produ	icts Ltd.	 	pg. 48	i e		F	orest S	tewardsh	nip Plan	(FSP)			

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Adm	ninistration info.	BG	С		Regeneration	Guide					Fr	ee Grov	wing G	uide	
		Classific	ation		Specie	Target M	IIN pa	q NIM	Regen delay		ssessm Latest	ent	Heiaht	Minimum inter-tree	% Tree over
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(well-s	paced/ha	a)	delay (max	(yrs)	(yrs)	Species	(meters)	distance	Brush
												Fd Others	1 4 1.0		
18074	Lw moved to preferred	ICHmk1	02	Fd Pl Lw	S _X 10,13 _{Bi} T10,13 _{Py} 9,14	1200	700	600	7	12	20	PI Lw	1.4	2.0	150
												Fd	1.4		
												Others	1.0		
18075	Lw moved to preferred	ICHmk1	02	Fd Pl Lw	S _X 10,13 _{Bi} T10,13 _{Py} 9,14	1200	700	600	7	12	20	PI Lw	1.4	1.7	150
	Lw doesn't show on chart at all											Fd	1.4		
												Others	1.0		
18076	Baseline	ICHmk1	03	Fd Lw Pl _{Sx10,13}	Cw10,13 _{Py} T,9,14 BIT,10,13	1000	500	400	7	12	20	PI Lw	1.4	2.0	150
												Fd Others	1.0 0.8		
												Others	0.0		
18077	Baseline w. reduced mitd	ICHmk1	03	Fd Lw Pl _{Sx} 10,13	Cw10,13 _{Py} T,9,14 BIT,10,13	1000	500	400	7	12	20	PI	1.4	1.7	150
												Fd	1.0		
												Others	0.8		
18078	Baseline	ICHmk1	04	Fd ³² Lw ³² Pl _{Sx} 10,13	Cw10,13,32 BI ^{T10} ,13	1200	700	600	7	12	20	PI Lw	2.0	2.0	150
					Fy. 3, 1 .					-		Fd	1.4		
												Others	1.0		
18079	Baseline w. reduced mitd	ICHmk1	04	Fd ³² Lw ³² PI _{Sx} 10,13	Cw _{10,13,32} BI ^{T10} ,13	1200	700	600	7	12	20	PI Lw	2.0	1.7	150
					Py 1 9, 1 4					<u> </u>		Fd	1.4		
												Others	1.0		
18080	Baseline	ICHmk1	05	PI Sx _{Fd} 9,14,32	BI Cw32 Lw9,14,32	1200	700	600	4	9	20	PI Lw	2.0	2.0	150
												Fd	1.4		
												Others	1.0		
I		lood Produ			ng 10					towardsh	. 51	(500)			I

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Adn	ninistration info.	BG	С		Regeneration	Guide					Fr	ee Grov	wing G	uide	
		Classific	ation		Specie	Target N	IIN pa	a NIM	ı Regen		ssessm	ent	Heinht	Minimum	% Tree
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(well-s	paced/ha	a)	Regen delay (max	Earliest (yrs)	Latest (yrs)	Species	(meters)	inter-tree distance	over Brush
18081	Baseline w. reduced	ICHmk1	05	PI Sx _{Fd} 9,14,32	BI Cw32 Lw9,14,32	1200	700	600	4	9	20	PI Lw	2.0	1.7	150
	mitd									·		Fd	1.4		
												Others	1.0		
18082	Lw moved to preferred	ICHmk1	05	PI Sx _{Fd} 9,14,32 LW9,14	,32 BI Cw ³²	1200	700	600	4	9	20	PI Lw	2.0	2.0	150
												Fd	1.4		
												Others	1.0		
18083	Lw moved to preferred & reduced mitd	ICHmk1	05	PI Sx _{Fd} 9,14,32 LW9,14	,32 BI Cw ³²	1200	700	600	4	9	20	PI Lw	2.0	1.7	150
												Fd	1.4		
												Others	1.0		
18084	Baseline	ICHmk1	06	PI Sx _{Fd} 9,14,32	BI _{9,14,32 Cw32,} LW _{9,14,32}	1200	700	600	4	9	20	PI Lw	2.0	2.0	150
												Fd	1.4		
												Others	1.0		
18085	Baseline w. reduced mitd	ICHmk1	06	PI Sx _{Fd} 9,14,32	Bl9,14,32 _{Cw32} , LW9,14,32	1200	700	600	4	9	20	PI Lw	2.0	1.7	150
												Fd	1.4		
												Others	1.0		
18086	Baseline	ICHmk1	07	Pl ¹ Sx ¹ Fd ^{1,32} ,Lw ^{1,32}	BI Cw ³²	1000	500	400	4	9	20	PI Lw	1.4	2.0	150
												Fd	1.0		
												Others	0.8		
18087	Baseline w. reduced mitd	ICHmk1	07	P1 Sx1 Fd132,Lw132	BI Cw ³²	1000	500	400	4	9	20	PI Lw	1.4	1.7	150
												Fd	1.0		
												Others	0.8		
18088	Baseline	ICHwk1	01	Cw ^{Fd9,14,58} Hw Sx	Bi10,13 LwT9,14,23,32 PiT23,34 PwT31,57	1200	700	600	4	9	20	PI Pw	2.0	2.0	150

Forest Stewardship Plan (FSP)

Adn	ninistration info.	BG	C		Regeneration	Guide					<u>Fr</u>	ee Gro	wing G	uide	
		Classific	ation		Specie	Target M	IIN pa	q NIM	Regen delay	A Earliest	ssessm Latest	ent	Heiaht	Minimum	% Tree
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(well-s	paced/ha	a)	delăy (max	(yrs)	(yrs)	Species	(meters)	inter-tree distance	over Brush
												l w Fd	2 N 1.4		
												Others	1.0		
18089	Baseline w. reduced mitd	ICHwk1	01	Cw ^{Fd9,14,58} Hw Sx	_{BI} 10,13 _{Lw} T9,14,23,32 _{PI} T23,34 _{Pw} T31,57	1200	700	600	4	9	20	PI Pw	2.0	1.7	150
					F[120,04 PW101,07							Lw	2.0		
												Fd	1.4		
												Others	1.0		
18090	Pw moved to preferred	ICHwk1	01	Cw ^{Fo®14,68} Hw Sx _{Pw} 31,57	Bi10,13 LwT9,14,23,32 PiT23,34	1200	700	600	4	9	20	PI Pw	2.0	2.0	150
										_		Lw	2.0		
												Fd	1.4		
												Others	1.0		
18091	Pw moved to preferred w. reduced mitd	ICHwk1	01	Cw ^{Fd9,14,58} Hw Sx _{Pw} 31,57	BI10,13 LwT9,14,23,32 PIT23,34	1200	700	600	4	9	20	PI Pw	2.0	1.7	150
										_		Lw	2.0		
												Fd	1.4		
												Others	1.0		
18092	Baseline	ICHwk1	04	Fd9,14,58 _{Cw Sx} 10,13	BIT10,13 LwT9,14,23	1200	700	600	4	9	20	PI Pw	2.0	2.0	150
										_		Lw	2.0		
												Fd	1.4		
												Others	1.0		
18093	Baseline w. reduced mitd	ICHwk1	04	Fd9,14,58 _{Cw Sx} 10,13	BIT10,13 LwT9,14,23 PIT23,34 PW 31,57 HW	1200	700	600	4	9	20	PI Pw	2.0	1.7	150
					P[120,041 W01,0711W							Lw	2.0		
												Fd	1.4		
												Others	1.0		
18094	Pw moved to preferred	ICHwk1	04	Fd9,14,58 _{cw 8x} 10,13 Pw31,57 Hw	BiT10,13 _{Lw} T9,14,23 PiT23,34	1200	700	600	4	9	20	PI Pw	2.0	2.0	150
				,	11							Lw	2.0		
												Fd	1.4		

<u>A</u> d	ministration info.	BG	<u> </u>		Regeneration	Guide					<u> </u>	ee Grov	<u>ving G</u>	uide	
		Classific	ation		Species	Target	MIN pa	a NIM	Regen		ssessm	ent	Height	Minimum	% Tree
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(well-s	spaced/ha		delay (max	Earliest (yrs)	Latest (yrs)	Species	(meters)	inter-tree distance	over Brush
												Others	1.0		
18095	Pw moved to preferred & reduced mitd	ICHwk1	04	Fd9,14,58 _{Cw Sx} 10,13 Pw31,57 Hw	_{ВІ} Т10,13 _{Lw} Т9,14,23 _{РІ} Т23,34	1200	700	600	4	9	20	PI Pw	2.0	1.7	150
				1 1101,071111	P[120,04							Lw	2.0		
												Fd	1.4		
												Others	1.0		
18096	Baseline	ICHwk1	05	Cw ³² Sx	BI _{Fd} 1,9,14,32 LWT1,14,23,32 PIT23,34 _{Hw} 32 _{Pw} T31,57	1200	700	600	4	9	20	PI Pw	2.0	2.0	150
												Lw	2.0		
												Fd	1.4		
												Others	1.0		
18097	Baseline w. reduced mitd	ICHwk1	05	Cw ³² Sx	BI _{Fd} 1,9,14,32 LWT1,14,23,32 PIT23,34 _{Hw} 32 _{Pw} T31,57	1200	700	600	4	9	20	PI Pw	2.0	1.7	150
												Lw	2.0		
												Fd	1.4		
												Others	1.0		
18098	Pw & Hw moved to preferred	ICHwk1	05	Cw ³² Sx Hw ₃₂ PwT31,57	_{BI Fd} 1,9,14,32 LW T1,14,23,32 PJT23,34	1200	700	600	4	9	20	PI Pw	2.0	2.0	150
	protottou				P[123,34							Lw	2.0		
												Fd	1.4		
												Others	1.0		
18099	Pw & Hw moved to preferred &. reduced mitd	ICHwk1	05	Cw ³² Sx Hw ₃₂ PwT31,57	BI Fd 1, 9, 14, 32 LWT 1, 14, 23, 32 PIT 23, 34	1200	700	600	4	9	20	PI Pw	2.0	1.7	150
												Lw	2.0		
												Fd	1.4		
												Others	1.0		
18100	Baseline	ICHwk1	06	Cw _{1,32} Sx ¹	BI ¹ PI ^{T1,23,34} Hw ^{32,}	1000	500	400	4	9	20	PI Pw	1.4	2.0	150
					, w.,,-,,-,							Others	0.8		

Adm	ninistration info.	BG	С		Regeneration	Guide					Fr	ee Grov	ving G	uide	
		Classific	ation		Specie	Target	MIN pa	q NIM	Regen		ssessm	ent	Height	Minimum	% Tree
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(well-	spaced/ha	a)	delay (max	Earliest (yrs)	Latest (yrs)	Species	(meters)	inter-tree distance	over Brush
18101	Baseline w. reduced mitd	ICHwk1	06	Cw _{1,32} Sx ¹	BI ¹ PI ^{T1,23,34} Hw ^{32,} pT.31.57	1000	500	400	4	9	20	PI Pw Others	1.4 0.8		
18102	Pw Hw moved to preferred	ICHwk1	06	Cw _{1,32} Sx ¹ Hw ³² , _{Pw} T,31,57	BJ ¹ PJ ^{T1,23,34}	1000	500	400	4	9	20	PI Pw Others	1.4 0.8		150
18103	Pw Hw moved to preferred & reduced mitd	ICHwk1	06	Cw _{1,32} Sx ¹ Hw ³² , _{Pw} T,31,57	B 1P T1,23,34	1000	500	400	4	9	20	PI Pw	1.4	1.7	150
18104	Baseline	ICHwk1	07	Cw _{1,32} Sx ¹	Bl1 Pw1.31.57 Hw ³²	1000	500	400	4	9	20	Others PI Pw Others	0.8 1.4 0.8	2.0	150
18105	Baseline w. reduced mitd	ICHwk1	07	Cw _{1,32} Sx ¹	Bl1 Pw1.31.57 Hw ³²	1000	500	400	4	9	20	PI Pw	1.4	1.7	150
18106	Hw moved to preferred	ICHwk1	07	Cw _{1,32} Sx ¹ Hw ³²	Bl1 _{Pv} 1,31,57	1000	500	400	4	9	20	Others PI Pw Others	0.8 1.4 0.8	2.0	150
18107	Hw moved to preferred & reduced mitd	ICHwk1	07	Cw _{1,32} Sx ¹ Hw ³²	BI1 _{Pw} 1,31,57	1000	500	400	4	9	20	PI Pw Others	1.4 0.8	1.7	150
18108	Baseline	ICHwk1	08	_{Cw1,32} Hw _{1,32} Sx ¹	ВІ1 вТ23,34	1000	500	400	4	9	20	PI Pw Others	1.4 0.8		150
18109	Baseline w. reduced mitd	ICHwk1	08	_{Cw} 1,32 Hw1,32 Sx ¹	ВІ1 вТ23,34	1000	500	400	4	9	20	PI Pw Others	1.4 0.8		150
			-				-	-			-				
18110	Baseline	ICHmw2	01	Fd ⁵⁸ Lw Cw _{Sx} 10,13,	_{BI} T10,13 PyT9,14,23 Hw ^T Pw31,57 PI100	1200	700	600	4	9	20	PI Pw	2.0	2.0	150

Adn	ninistration info.	BG	С		Regeneration	Guide					Fr	ee Grov	ving G	uide	
		Classific	ation	Sr	pecies	Target M	IIN pa	q NIM	Regen delay	Δ : Earliest	sessm	ent	Heiaht	Minimum inter-tree	% Tree
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(well-s	paced/ha	a)	delay (max	(yrs)	(yrs)	Species	(meters)	distance	over Brush
												l w Fd	2 N 1.4		
												Others	1.0		
18111	Baseline w. reduced mitd	ICHmw2	01	Fd ⁵⁸ Lw Cw _{Sx} 10,13,	_{Bi} T10,13 PyT9,14,23 Hw ^T Pw31,57 Pl100	1200	700	600	4	9	20	PI Pw	2.0	1.7	150
												Lw	2.0		
												Fd	1.4		
												Others	1.0		
18112	Pw PI moved to preferred	ICHmw2	01	Fd ⁵⁸ Lw Cw _{Sx} 10,13, Pw _{31,57} Pl ₁₀₀	BIT10,13 Py T9,14,23 Hw ^T	1200	700	600	4	9	20	PI Pw	2.0	2.0	150
												Lw	2.0		
												Fd	1.4		
												Others	1.0		
18113	Pw PI moved to preferred & reduced mitd	ICHmw2	01	Fd ⁵⁸ Lw Cw _{Sx} 10,13, Pw31,57 Pl 100	_{Ві} Т10,13 Ру Т9,14,23 Hw ^T	1200	700	600	4	9	20	PI Pw	2.0	1.7	150
												Lw	2.0		
												Fd	1.4		
												Others	1.0		
18114	Baseline	ICHmw2	03	Fd ⁵⁸ Lw	PI Cw _{Pw} 31,57 _{Sx} 10,13 PyT9,14,23 HwT	1200	700	600	7	12	20	PI Pw	2.0	2.0	150
					,					_		Lw	2.0		
												Fd	1.4		
												Others	1.0		
18115	Baseline w. reduced mitd	ICHmw2	03	Fd ⁵⁸ Lw	PI Cw _{Pw} 31,57 _{8x} 10,13 PyT9,14,23 Hwt	1200	700	600	7	12	20	PI Pw	2.0	1.7	150
					1 910,14,2011111					_		Lw	2.0		
												Fd	1.4		
												Others	1.0		
18116	PI, Pw Py moved to preferred	ICHmw2	03	Fd ⁵⁸ Lw Pl ₁₀₀ Pw _{31,57} Pv _T 9,14,23	Cw ^{Sx10,13} Hw ^T	1200	700	600	7	12	20	PI Pw	2.0	2.0	150
				ĺ								Lw	2.0		

Minimum inter-tree distance	Minimum inter-tree distance	Heiaht (meters)	ee Grov	ssessm	Α										
distance Brush 1.4 1.0 2.0 1.7 150	distance		Species		Earliest	Regen delay	q NIM	IIN pa	Target N	pecies	s	ation	Classific		
1.0 2.0 1.7 150		1 4	Opecies	(yrs)	(yrs)	delăy (max	1)	paced/ha	(well-s	Acceptable (a)	Preferred (p)	Series	Zone/ SZ	Name	Regime #
		1.0	Fd Others												
2.0	0 1.7	2.0	PI Pw	20	12	7	600	700	1200	Cw ^{Sx10,13} Hw ^T	Fd ⁵⁸ Lw Pl ₁₀₀ Pw _{31,57} PyT9,14,23	03	ICHmw2	PI, Pw Py moved to preferred & mitd reduced	18117
	0	2.0	Lw												
1.4	4	1.4	Fd												
1.0	0	1.0	Others												
2.0 2.0 150	0 2.0	2.0	PI Pw	20	12	7	400	500	1000	Cw Sx10,13 թyT9,14,23 Hw ^T	Fd ⁵⁸ Lw Pl ₁₀₀ Pw _{31,57}	02-03	ICHmw2	Transition ss for 03 to non-forested 02	18118
2.0	0	2.0	Lw												
1.4	4	1.4	Fd												
1.0	0	1.0	Others												
2.0 1.7 150	0 1.7	2.0	PI Pw	20	12	7	400	500	1000	Cw Sx10,13 _P yT9,14,23 Hw ^T	Fd ⁵⁸ Lw Pl ₁₀₀ Pw31,57	02-03	ICHmw2	Transition ss for 03 to non-forested 02 & w. reduced mitd	18119
2.0	0	2.0	Lw		·									reduced finite	
1.4	4	1.4	Fd												
1.0	0	1.0	Others												
2.0 2.0 150	0 2.0	2.0	PI Pw	20	12	7	600	700	1200	PI Cw ^{BIT10,13} Pw Py ^T Hw ^T	Fd ⁵⁸ Lw _{Sx} 10,13	04	ICHmw2	Baseline	18120
2.0	0	2.0	Lw												
		1.4	Fd												
1.0	0	1.0	Others												
2.0 1.7 150	0 1.7	2.0	PI Pw	20	12	7	600	700	1200	PI Cw BIT10,13 Pw Py ^T Hw ^T	Fd ⁵⁸ Lw _{Sx} 10,13	04	ICHmw2	Baseline w. reduced mitd	18121
2.0	0	2.0	Lw												
		1.4	Fd												
1.0	0	1.0	Others												
2.0 2.0 150	0 2.0	2.0	PI Pw	20	12	7	600	700	1200	Cw BIT10,13 Hw ^T	Fd ⁵⁸ Lw ^{Sx10,13} Pl Py ^T Pw _{31,49,57}	04	ICHmw2	PI Py Pw moved to preferred	18122
2.0	0	2.0	Lw		l '										
4.4	4	1.4	Fd												
1. 2. 2. 1. 1. 1. 2.		1. 2. 2. 1. 1. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	Others PI Pw Lw Fd Others PI Pw Lw Fd Others PI Pw Lw Fd Lw Fd Lw Lw Lw Lw	20	12	7	600	700	1200	Hw ^T PI Cw ^{BIT10,13} Pw Py ^T Hw ^T	Fd ⁵⁸ LW _{Sx} 10,13	04	ICHmw2	Baseline w. reduced mitd	18121

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Adn	ninistration info.	BG	С	Regeneration	Guide					Fr	ee Grov	ving G	uide	
		Classific	ation	Species	Target M	IIN pa	q NIM	Regen delay	A Earliest	ssessm	ent	Heiaht	Minimum	% Tree
Regime #	Name	Zone/ SZ	Series	Preferred (p) Acceptable (a)	(well-s	paced/ha	a)	delay (max	(yrs)	(yrs)	Species	(meters)	inter-tree distance	over Brush
											Others	1.0		
18123	PI Py Pw moved to preferred & reduced mitd	ICHmw2	04	Fd ⁵⁸ Lw ^{Sx10,13} Pl Py ^T Cw ^{BIT10,13} Hw ^T Pw ₃₁ , 49, 57	1200	700	600	7	12	20	PI Pw	2.0	1.7	150
									L L		Lw	2.0		
											Fd	1.4		
											Others	1.0		
18124	Baseline	ICHmw2	05	Cw ^{Fd9,14,58} _{Hw} ^{Lw9,14} BI PI _{Pw} 31,57	1200	700	600	4	9	20	PI Pw	2.0	2.0	150
				<u>ο</u> λ					L L		Lw	2.0		
											Fd	1.4		
											Others	1.0		
18125	Baseline w. reduced mitd	ICHmw2	05	Cw ^{Fd9,14,58} Hw ^{Lw9,14} BI PI _{Pw} 31,57 Sx	1200	700	600	4	9	20	PI Pw	2.0	1.7	150
									•		Lw	2.0		
											Fd	1.4		
											Others	1.0		
18126	Pw moved to preferred	ICHmw2		Cw ^{Fd9,14,58} _{Hw} Lw9,14 BI PI Sx _{Pw} 31,49,57	1200	700	600	4	9	20	PI Pw	2.0	2.0	150
											Lw	2.0		
											Fd	1.4		
											Others	1.0		
18127	Pw moved to preferred and mitd reduced	ICHmw2		Cw ^{Fd9,14,58} _{Hw} Lw9,14 BI PI Sx _{Pw} 31,49,57	1200	700	600	4	9	20	PI Pw	2.0	1.7	150
				GX PW01,40, 01							Lw	2.0		
											Fd	1.4		
											Others	1.0		
18128	Baseline	ICHmw2	06	Cw ³² Sx _{Fd} 1,32,58 BI Hw ³² Pw ₃₁ , ⁵⁷ Pl	1200	700	600	4	9	20	PI Pw	2.0	2.0	150
				Lw1,32					l		Lw	2.0		
											Fd	1.4		
											Others	1.0		

Adn	ninistration info.	BG	2		Regeneration	Guide					Fr	ee Grov	wing G	uide	
		Classific	ation	Spe	ecies	Target M	IN pa	q NIM	Regen delay	A Earliest	ssessm	ent	Heiaht	Minimum	% Tree
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(well-s	paced/ha	a)	delay (max	Earliest (yrs)	(yrs)	Species	(meters)	inter-tree distance	over Brush
18129	Baseline w. reduced	ICHmw2	06	Cw ³² Sx _{Fd} 1,32,58 _{Lw} 1,32	BI Hw ³² Pw _{31, 57} PI	1200	700	600	4	9	20	PI Pw	2.0	1.7	150
												Lw	2.0		
												Fd	1.4		
												Others	1.0		
18130	Planted Hw Bl Pw	ICHmw2	06	Cw ³² Sx _{Fd} 1,32,58 LW1,32 _{Hw} 32 _{Pw} 31,49,57	BIPI	1200	700	600	4	9	20	PI Pw	2.0	2.0	150
												Lw	2.0		
												Fd	1.4		
												Others	1.0		
18131	Planted Hw Bl Pw & reduced mitd	ICHmw2	06	Cw ³² Sx _{Fd} 1,32,58 LW1,32 _{Hw} 32 _{Pw} 31,49,57	BI PI	1200	700	600	4	9	20	PI Pw	2.0	1.7	150
												Lw	2.0		
												Fd	1.4		
												Others	1.0		
18132	Baseline	ICHmw2	07	Cw _{1,32} Sx ¹	BI _{1 Hw} 1,32 Pw ₁ ,31 Pl ¹	1000	500	400	4	9	20	PI Pw	1.4	2.0	150
			-		,.							Others	0.8		
18133	Baseline w. reduced mitd	ICHmw2	07	Cw _{1,32} Sx ¹	BI _{1 Hw} 1,32 PWT1,31 PI ¹	1000	500	400	4	9	20	PI Pw	1.4	1.7	150
	mita											Others	0.8		
18134	Baseline	ICHmw2	08	Cw _{1,32} Pl ¹ Sx ¹	ВІ1 н _м 1,32	1000	500	400	4	9	20	PI Pw Others	1.4 0.8		150
												Others	0.0		
18135	Baseline w. reduced mitd	ICHmw2	80	Cw _{1,32} Pl ¹ Sx ¹	BI _{1 Hw} 1,32	1000	500	400	4	9	20	PI Pw	1.4	1.7	150
										•		Others	0.8		
		-					-				-	-			
										l					

Adn	ninistration info.	BG	2		Regeneration	Guide					Fr	ee Grov	ving G	uide	
		Classific	ation	Sı	pecies	Target M	IIN pa	q NIM	Regen delay	A:	ssessm	ent	Heiaht	Minimum	% Tree
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(well-s	paced/ha	a)	delay (max	Earliest (yrs)	(yrs)	Species	(meters)	inter-tree distance	over Brush
18136	Baseline	ICHxw	01	Fd ⁵⁸ Lw PI Py _{Pw} 31,49	Bg _{10,13} Cw Hw ^T	1200	700	600	7	12	20	PI Pw	2.0	2.0	150
										<u> </u>		Lw	2.0		
												Fd	1.4		
												Others	1.0		
18137	Baseline w. reduced mitd	ICHxw	01	Fd ⁵⁸ Lw Pl Py _{Pw} 31,49	Bg _{10,13} Cw Hw ^T	1200	700	600	7	12	20	PI Pw	2.0	1.7	150
										<u> </u>		Lw	2.0		
												Fd	1.4		
												Others	1.0		
18138	Baseline	ICHxw	01a	Fd ⁵⁸ Lw Py Pw _{31,49}	Bg ²⁸ Cw _{Sx} 10,13 BlT10,13 Hw ^T Pl	1200	700	600	7	12	20	PI Pw	2.0	2.0	150
										_		Lw	2.0		
												Fd	1.4		
												Others	1.0		
18139	Baseline w. reduced mitd	ICHxw	01a	Fd ⁵⁸ Lw Py Pw _{31,49}	Bg ²⁸ Cw _{Sx} 10,13 BlT10,13 Hw ^T Pl	1200	700	600	7	12	20	PI Pw	2.0	1.7	150
										_		Lw	2.0		
												Fd	1.4		
												Others	1.0		
18140	PI moved to preferred only where meets PI100 footnote	ICHxw	01a	Fd ⁵⁸ Lw Py Pw _{31,49} Pl ¹⁰⁰	Bg ²⁸ Cw _{Sx} 10,13 BlT10,13 Hw ^T	1200	700	600	7	12	20	PI Pw	2.0	2.0	150
	loothote											Lw	2.0		
												Fd	1.4		
												Others	1.0		
18141	PI move to preferred only where meets PI100 footnote & reduced mitd	ICHxw	01a	Fd ⁵⁸ Lw Py Pw _{31,49} Pl ¹⁰⁰	Bg ²⁸ Cw _{Sx} 10,13 BlT10,13 Hw ^T	1200	700	600	7	12	20	PI Pw	2.0	1.7	150
										l		Lw	2.0		
												Fd	1.4		
												Others	1.0		
										<u> </u>					

Adn	ninistration info.	BG	С		Regeneration	Guide					Fre	ee Grov	ving G	uide	
		Classific	ation		Species	Target	MIN pa	q NIM	Regen	1	ssessme	ent	Height	Minimum	% Tree
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(well-s	spaced/ha	1)	delay (max	Earliest (yrs)	Latest (yrs)	Species	(meters)	inter-tree distance	over Brush
18142	Baseline	ICHxw	01h	Fd ⁵⁸ I w PI PvQ 14 Pw31,49 sx10,13	Cw Ra Hw ^{BIT10,13} Hw ^T	1200	700	600	7	12	20	PI Pw	20	20	150
												Lw	2.0		
												Fd	1.4		
												Others	1.0		
18143	Baseline & reduced mitd	ICHxw	01b	Fd ⁵⁸ Lw Pl Py9,14 _{Pw} 31,49 _{8x} 10,13	Cw Bg Hw ^{BIT10,13} Hw ^T	1200	700	600	7	12	20	PI Pw	2.0	1.7	150
												Lw	2.0		
												Fd	1.4		
												Others	1.0		
18144	Baseline	ICHxw	02	Fd ⁵⁸ Lw Py	Cw HwT10,13 PJT	1000	500	400	7	12	20	PI Lw	1.4	2.0	150
				. a _w.y	· · · · · · · · · · · · · · · · · · ·							Fd	1.0		
												Others	0.8		
18145	Baseline w. reduced mitd	ICHxw	02	Fd ⁵⁸ Lw Py	Cw ^{HwT10,13} PI ^T	1000	500	400	7	12	20	PI Lw	1.4	1.7	150
	mila											Fd	1.0		
												Others	0.8		
												Others	0.0		
18146	PI moved to preferred only where meets PI100 footnote	ICHxw	02	Fd ⁵⁸ Lw Py PlT100	CW _{Hw} T10,13	1000	500	400	7	12	20	PI Lw	1.4	2.0	150
İ						il						Fd	1.0		İ
												Others	0.8		
18147	PI moved to preferred only where meets PI100 footnote and reduced	ICHxw	02	Fd ⁵⁸ Lw Py PlT100	CW _{Hw} T10,13	1000	500	400	7	12	20	PI Lw	1.4	1.7	150
	mitd											Fd	1.0		
												Others	0.8		
												Outors	0.0		
18148	Baseline	ICHxw	03	Fd1,32,58 LW1,32 SX CW32 PW31,49	Bg32 Hw Pl¹ Bl [⊤]	1200	700	600	4	9	20	PI Pw	2.0	2.0	150
												Lw	2.0		
												Fd	1.4		

Adn	ministration info.	BG	С		Regeneration	Guide					Fr	ee Grov	wing G	uide	
		Classific	ation	Sn	ecies	Target M	IIN pa	q NIM	Regen delay	Earliest	ssessm	ent	Heiaht	Minimum	% Tree
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(well-s	paced/ha	a)	delay (max	(yrs)	(yrs)	Species	(meters)	inter-tree distance	over Brush
												Others	1.0		
18149	Baseline w. reduced mitd	ICHxw	03	_{Fd} 1,32,58 LW1,32 SX CW32 PW31,49	Bg32 Hw Pl ¹ Bl ^T	1200	700	600	4	9	20	PI Pw	2.0	1.7	150
												Lw	2.0		
												Fd	1.4		
												Others	1.0		
18150	PI moved to preferred only where meets PI100 footnote	ICHxw	03	Fd1,32,58 LW1,32 SX CW32 Pw31,49 PI100	Bg32 Hw Bl ^T	1200	700	600	4	9	20	PI Pw	2.0	2.0	150
	10011010											Lw	2.0		
												Fd	1.4		
												Others	1.0		
18151	PI moved to preferred only where meets PI100 footnote and reduced mitd	ICHxw	03	Fd1,32,58 LW1,32 SX CW32 Pw31,49 PI100	Bg32 Hw Bl ^T	1200	700	600	4	9	20	PI Pw	2.0	1.7	150
	mita									<u>.</u>		Lw	2.0		
												Fd	1.4		
												Others	1.0		
18152	Baseline	ICHxw	04	Cw ³² Sx _{Fd} 1,32,58	Bg _{1,32} Hw ³² Pl ¹ Bl ^T	1200	700	600	4	9	20	PI Pw	2.0	2.0	150
				Lw1,32 _{Pw} 1,31,49						<u> </u>		Lw	2.0		
												Fd	1.4		
												Others	1.0		
18153	Baseline w. reduced mitd	ICHxw	04	Cw ³² Sx _{Fd} 1,32,58 _{Lw} 1,32 _{Pw} 1,31,49	Bg _{1,32} Hw ³² Pl ¹ Bl ^T	1200	700	600	4	9	20	PI Pw	2.0	1.7	150
				LW1,32 Pw1,31,49								Lw	2.0		
												Fd	1.4		
												Others	1.0		
18154	PI moved to preferred only where meets PI100 footnote	ICHxw	04	Cw ³² Sx _{Fd} 1,32,58 _{Lw} 1,32 Pw1,31,49 _{Pl} 1, 100	$Bg_{1,32}Hw^{32}BI^T$	1200	700	600	4	9	20	PI Pw	2.0	2.0	150
												Lw	2.0		

Adm	ninistration info.	BG	С		Regeneration		Free Growing Guide								
		Classific	ation	Sp	Species			a NIM	Regen delay	Δ Earliest	ssessm	ent	Height	Minimum inter-tree	% Tree
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(well-s	oaced/ha		delay (max	(yrs)	(yrs)	Species	(meters)	distance	over Brush
												Fd Others	1 <u>4</u> 1.0		
18155	PI moved to preferred only where meets PI100 footnote & reduced mitd	ICHxw		Cw^{32} Sx $_{Fd}1,32,58$ $_{Lw}1,32$ $PW1,31,49$ $_{Pl}1,100$	Bg _{1,32} Hw ³² Bl ^T	1200	700	600	4	9	20	PI Pw	2.0	1.7	150
												Lw	2.0		
												Fd	1.4		
									Ш			Others	1.0		
18156	Baseline	MSdk	01	Fd ³² Lw ³² PI Sx	BI	1200	700	600	7	12	20	PI Lw Others	1.4 0.8	2.0	125
18157	Baseline w. reduced mitd	MSdk	01	Fd ³² Lw ³² PI Sx	ВІ	1200	700	600	7	12	20	PI Lw	1.4	1.7	125
												Others	0.8		
18158	Baseline	MSdk	03	Fd Lw Pl	Sx Bl ^T	1000	500	400	7	12	20	PI Lw	1.0		125
												Others	0.6		
18159	Baseline w. reduced mitd	MSdk	03	Fd Lw Pl	Sx Bl ^T	1000	500	400	7	12	20	PI Lw	1.0		125
												Others	0.6		
18160	Baseline	MSdk	04	Fd Lw Pl Sx	ВІ	1200	700	600	7	12	20	PI Lw Others	1.4 0.8		125
18161	Baseline w. reduced mitd	MSdk	04	Fd Lw Pl Sx	BI	1200	700	600	7	12	20	PI Lw	1.4		125
												Others	0.8		
18162	Baseline	MSdk	05	Fd ³² Lw ³² PI Sx	ВІ	1200	700	600	7	12	20	PI Lw Others	1.4 0.8		125
												041010	0.0		

Adm	ninistration info.	BG	С		Regene	eration Guide)				Fre	ee Grow	/ing Gւ	ıide	
		Classific	ation		Species	Target	MIN pa	q NIM	Regen	Assessm			Height	Minimum	
Regime #	Name	Zone/ SZ	Series	Preferred (p)	Acceptable (a)	(w	ell-spaced	/ha) (delay max vrs		Latest (vrs)	Species	(meters)	inter-tree distance	over Brush
18163	Baseline w. reduced mitd	MSdk	05	Fd ³² Lw ³² Pl Sx	ВІ	1200	700	600	7	7 12	20	PI Lw Others	1.4 0.8	1.7	125
18164	Baseline	MSdk	06	Sx_{Fd} 1,32 Lw1,32	BI PI ¹	1200	700	600	4	4 9	20	PI Lw Others	1.4 0.8	2.0	125
18165	Baseline w. reduced mitd	MSdk	06	SX _{Fd} 1,32 _{Lw} 1,32	BI PI ¹	1200	700	600	2	1 9	20	PI Lw Others	1.4 0.8	1.7	125

RSI-Southern Interior Forest Region Region:

Ministry of Forests and Range DKL-Kootenay Lake Forest District

---- Stocking (w/s) ----

----- Species -----

District: Client Number:

Status Code: ALL

BGC Zone: **BGC Sub Zone:** FSP, Org Unit, Client, Standards Id Group By:

Comments:

FDP & FSP Standards Report

----- Offsets -----

Date Printed:

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Report Id: RSLTRPT_RDD012

Max Density ----- Post Spacing ------

					Specie.	3		HOCKING	j (W/S)		200		Olisets					Fost Sp	acing						
	MoF										Regen														
	Default				Pref	Acc		Min	Min	Min	Obl.		Erl No	Lt No	Erl L	t Ht	Rel	Max			Resid	Effective	Expiry	Submitted	Approved
<u>ID</u>	Std Ind	Name	BEC	Layer	Spp/Ht	Spp/Ht	Targ	Stck	Pref	Horz	Ind	RG	RG	RG	FG F	G to C	Comp	Conf	Min	Max	BA	Date	Date	<u>by</u>	by
18148	Y	Baseline	ICH xw 03	I	FDI(1.4) LW(2.0) SX(1.0) CW(1.0) PW(2.0)	BG(1.0) HW(1.0) PLI(2.0) BL(1.0)	1,200	700	600	2.0	Y	4			9 2	0 15	50%					2003-04-02			RESULTS_CN V
18149	Y	Baseline with reduced MITD	ICH xw 03	1	FDI(1.4) LW(2.0) SX(1.0) CW(1.0) PW(2.0)	BG(1.0) HW(1.0) PLI(2.0) BL(1.0)	1,200	700	600	1.7	Y	4			9 2	0 15	50%					2003-04-02			RESULTS_CN V
18150	Y	PLI moved to pref. where meets PLI100 footnote	ICH xw 03	1	FDI(1.4) LW(2.0) SX(1.0) CW(1.0) PW(2.0) PLI(2.0)	BG(1.0) HW(1.0) BL(1.0)	1,200	700	600	2.0	Y	4			9 2	0 15	50%					2003-04-02			RESULTS_CN V
18151	Y	PLI moved to pref. where meets PLI100 red. MITD	ICH xw 03	Ĩ	FDI(1.4) LW(2.0) SX(1.0) CW(1.0) PW(2.0) PLI(2.0)	BG(1.0) HW(1.0) BL(1.0)	1,200	700	600	1.7	Y	4			9 2	0 15	50%					2003-04-02			RESULTS_CN V
18152	Y	Baseline	ICH xw 04	1	CW(1.0) SX(1.0) FDI(1.4) LW(2.0) PW(2.0)	BG(1.0) HW(1.0) PLI(2.0) BL(1.0)	1,200	700	600	2.0	Y	4			9 2	0 15	50%					2003-04-02			RESULTS_CN V
18153	Y	Baseline with reduced MITD	ICH xw 04	1	CW(1.0) SX(1.0) FDI(1.4) LW(2.0) PW(2.0)	BG(1.0) HW(1.0) PLI(2.0) BL(1.0)	1,200	700	600	1.7	Υ	4			9 2	0 15	50%					2003-04-02			RESULTS_CN V
18154	Y	PLI moved to pref. where meets PLI100 footnote	ICH xw 04	J	CW(1.0) SX(1.0) FDI(1.4) LW(2.0) PW(2.0) PLI(2.0)	BG(1.0) HW(1.0) BL(1.0)	1,200	700	600	2.0	Y	4			9 2	0 15	50%					2003-04-02			RESULTS_CN V
18155	Y	PLI moved to pref. where meets PLI100 red. MITD	ICH xw 04	1	CW(1.0) SX(1.0) FDI(1.4) LW(2.0) PW(2.0) PLI(2.0)	BG(1.0) HW(1.0) BL(1.0)	1,200	700	600	1.7	Y	4			9 2	0 15	50%					2003-04-02			RESULTS_CN V
18156	Y	Baseline	MS dk 01	1	FDI(.8) LW(1.4) PLI(1.4) SX(.8)	BL(.8)	1,200	700	600	2.0	Y	7			12 2	0 12	25%					2003-04-02			RESULTS_CN V
18157	Y	Baseline with reduced MITD	MS dk 01	1	FDI(.8) LW(1.4) PLI(1.4) SX(.8)	BL(.8)	1,200	700	600	1.7	Y	7			12 2	0 12	25%					2003-04-02			RESULTS_CN V
18158	Y	Baseline	MS dk 03	1	FDI(.6) LW(1.0) PLI(1.0)	SX(.6) BL(.6)	1,000	500	400	2.0	Y	7			12 2	0 12	25%					2003-04-02			RESULTS_CN V
18159	Y	Baseline with reduced MITD	MS dk 03	1	FDI(.6) LW(1.0) PLI(1.0)	SX(.6) BL(.6)	1,000	500	400	1.7	Υ	7			12 2	0 12	25%					2003-04-02			RESULTS_CN V
18160	Y	Baseline	MS dk 04	J	FDI(.8) LW(1.4) PLI(1.4) SX(.8)	BL(.8)	1,200	700	600	2.0	Y	7			12 2	0 12	25%					2003-04-02			RESULTS_CN V

RSI-Southern Interior Forest Region

Ministry of Forests and Range FDP & FSP Standards Report

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Date Printed: 2011-01-25 11:11:19

Heartel: IDIPURI ISSEL I

District: DKL-Kootenay Lake Forest District
Client Number:

Region:

User Id: IDIR\IRUSSELL
Database: DBP01

Status Code: ALL

BGC Zone: BGC Sub Zone:

Group By: FSP, Org Unit, Client, Standards Id

Report Id: RSLTRPT_RDD012

File:

Comments: N

Community.				Max Density
	Species	Stocking (w/s)	Offsets	Post Spacing
MoF			Regen	

	MOF										Regen													
	Default				Pref	Acc		Min	Min	Min	Obl.)	Erl No	Lt No	Erl L	Ht Rel	Max			Resid	Effective	Expiry	Submitted	Approved
<u>ID</u>	Std Ind	Name	BEC	Layer	Spp/Ht	Spp/Ht	Targ	Stck	Pref	Horz	Ind	RG	RG	RG	FG FG	to Comp	Conf	Min	Max	BA	Date	Date	<u>by</u>	by
18161	Y	Baseline with reduced MITD	MS dk 04	I	FDI(.8) LW(1.4) PLI(1.4) SX(.8)	BL(.8)	1,200	700	600	1.7	Y	7			12 20	125%					2003-04-02			RESULTS_CN V
18162	Y	Baseline	MS dk 05	1	FDI(.8) LW(1.4) PLI(1.4) SX(.8)	BL(.8)	1,200	700	600	2.0	Υ	7			12 20	125%					2003-04-02			RESULTS_CN V
18163	Y	Baseline with reduced MITD	MS dk 05	1	FDI(.8) LW(1.4) PLI(1.4) SX(.8)	BL(.8)	1,200	700	600	1.7	Y	7			12 20	125%					2003-04-02			RESULTS_CN V
18164	Y	Baseline	MS dk 06	1	SX(.8) FDI(.8) LW(1.4)	BL(.8) PLI(1.4)	1,200	700	600	2.0	Y	4			9 20	125%					2003-04-02			RESULTS_CN V
18165	Y	Baseline with reduced MITD	MS dk 06	1	SX(.8) FDI(.8) LW(1.4)	BL(.8) PLI(1.4)	1,200	700	600	1.7	Υ	4			9 20	125%					2003-04-02			RESULTS_CN V
18166	Y	V2 baseline	ESSF dm 01	1	SE(1.0) PLI(2.0)	BL(1.0) HW(1.0) FDI(1.4) LW(2.0)	1,200	700	600	2.0	Y	4			12 20	125%					2006-07-01		IDIR\KGSACE	IDIR\KGSACEN
18167	Y	Caribou zone only AND >1600m	ESSF dm 01	1	SE(1.0) PLI(2.0) BL(1.0)	HW(1.0) FDI(1.4) LW(2.0)	1,200	700	600	2.0	Y	4			12 20	125%					2006-07-01		IDIR\KGSACE	IDIR\KGSACEN
18168	Y	V2 Baseline w. reduced MITD	ESSF dm 01	1	SE(1.0) PLI(2.0)	BL(1.0) HW(1.0) FDI(1.4) LW(2.0)	1,200	700	600	1.7	Y	4			12 20	125%					2006-07-01		IDIR\KGSACE	IDIR\KGSACEN
18169	Y	Caribou zone only AND >1600m w. reduced MITD	ESSF dm 01	1	SE(1.0) PLI(2.0) BL(1.0)	HW(1.0) FDI(1.4) LW(2.0)	1,200	700	600	1.7	Υ	4			12 20	125%					2006-07-01		IDIR\KGSACE NI	IDIR\KGSACEN
18170	Y	V2 Baseline	ESSF dm 02	1	PLI(2.0)	SE(1.0) BL(1.0) LW(1.0) FDI(1.0)	1,200	700	600	2.0	Y	4			15 20	125%					2006-07-01		IDIR\KGSACE	IDIR\KGSACEN
18171	Y	Caribou zone only AND >1600m	ESSF dm 02	1	SE(1.0) PLI(2.0) BL(1.0)	LW(1.0) FDI(1.0)	1,200	700	600	2.0	Υ	4			15 20	125%					2006-07-01		IDIR\KGSACE	IDIR\KGSACEN
18172	Y	V2 Baseline w. reduced MITD	ESSF dm 02	1	PLI(2.0)	SE(1.0) BL(1.0) LW(1.0) FDI(1.0)	1,200	700	600	1.7	Υ	4			15 20	125%					2006-07-01		IDIR\KGSACE	IDIR\KGSACEN
18173	Y	Caribou zone only AND >1600m w. reduced MITD	ESSF dm 02	1	SE(1.0) PLI(2.0) BL(1.0)	LW(1.0) FDI(1.0)	1,200	700	600	1.7	Y	4			15 20	125%					2006-07-01		IDIR\KGSACE NI	IDIR\KGSACEN
18174	Υ	V2 Baseline	ESSF dm 03	1	PLI(2.0)	SE(1.0) LW(2.0) FDI(1.4) HW(1.0) BL(1.0)	1,200	700	600	2.0	Y	4			12 20	125%					2006-07-01		IDIR\KGSACE NI	IDIR\KGSACEN
18175	Υ	Caribou zone only AND >1600m	ESSF dm 03	1	PLI(2.0) SE(1.0) BL(1.0)		1,200	700	600	2.0	Y	4			12 20	125%					2006-07-01		IDIR\KGSACE NI	IDIR\KGSACEN

Stocking Requirements for Single Tree Selection

Target from	Layer**	Sto	cking***		Target from	Layer**	Stocking***			
Table A standards		Target	pa MIN pa	MIN p	Table A standards		Target pa	MIN pa	a MIN p	
(stems/ha)/Standards ID #		(we	ll-spaced/ha	a)	(stems/ha)/Standards ID#		(well-	spaced/ha))	
1200-(18200)	1 2 3	600 800 1000	300 400 500	250 300 400	800-(18204)	1 2 3	300 400 600	150 200 300	150 200 300	
	4	1200	700	600		4	800	400	400	
1000-(18201)	1 2	400 600	200 300	200 250	600-(18205)	1 2	300 400	150 200	150 200	
	3 4	1000	400 500	300 400		3 4	500 600	300 400	300 400	
900-(18203)	1 2 3 4	400 500 700 900	200 300 400 500	200 250 300 400	400-(18206)	1 2 3 4	200 300 300 400	100 125 150 200	100 125 150 200	

^{*} Maximum regeneration delay is seven years. For a seven-year regeneration delay, the early free growing is 12 years and the late free growing is 15 years. Regeneration delay can be met immediately following harvest if the residual stand has no significant damage or pest problems and meets minimum stocking standards. If regeneration is achieved immediately following harvest, earliest free growing date is 12 months after completion of harvest and the latest date is 24 months after completion of harvest.

**Stand Layer Definition

Layer 1	Mature	trees >= 12.5 cm dbh
Layer 2	Pole	trees 7.5 cm to 12.4 cm dbh
Layer 3	Sapling	trees >= 1.3 m height to 7.4 cm dbh
Layer 4	Regeneration	trees < 1.3 m height

^{***} pa - preferred and acceptable species p - preferred species MIN - minimum

Preferred and acceptable species and "Target from Table A standards' are as specified in Table A by biogeoclimatic ecosystem classification (BEC) site series.

Footnotes specific to Kootenay Lake Forest District

The "100" series footnotes denote DKL April2003 criteria that exist in addition to existing footnotes from the Establishment to Free Growing guidebook (May 2000).

Number Name Cr	riteria
----------------	---------

T Tertiary	"T" denotes that species came from the tertiary category as per the Establishment to

Free Growing Guidelines May 2000

100 Pli to preferred See separate page, "Pl 100 footnote."

(otherwise acceptable)

101 Pli ESSFdm1-4 Pl can be planted to comprise up to 50% of total well-spaced stems, otherwise it is acceptable.

102 ICHdw-01a Cw can be moved to preferred on wet microsites only, otherwise it is 'acceptable.'

Bl can only comprise <30% of total well-spaced stems

PI 100 footnote:

In order to move Pli from "acceptable" to "preferred" in the Kootenay Lake Stocking Standards, the following criteria shall apply:

For areas with greater than 25% Pli in the mature overstory;

Pli can only be moved to preferred on sites where <u>all</u> of the following criteria are met:

- 1) Pli consisted of >25% of the mature overstory,
- 2) Extensive, historically proven stands of Pli existed pre-harvest*,
- 3) the harvested Pli is generally of good form and quality,
- 4) the site series is drier than mesic and there is no humidity build-up (e.g. sloping sites, off valley floor bottoms, away from lakes), and
- 5) there is minimal evidence of snow damage in the mature stand(s).

If the 5 criteria are met and there is:

- >50% Pli in the pre-harvest stand (based on merchantable volume), then Pli can count towards up to 100% of total well spaced stems.
- 25-50% Pli in the pre-harvest stand, then Pl can count towards a maximum of 50% of total well spaced stems.

For Areas with less than 25% Pli in the mature stand

Where criteria #2, 3, 4, and 5, are met and there is 10-25% Pli in the pre-harvest stand, then Pli can count towards a maximum of 25% of total well spaced stems.

For Areas with less than 10% Pli in the mature stand

Where there is <10% Pli in the pre-harvest stand, Pli shall remain as acceptable and shall not be moved to preferred unless either of the following instances exist immediately adjacent in stands situated on similar site series, slope, aspect, and elevation;

- mature stands of >25 % Pli that meet criteria 2 through 5, or
- Pli plantations (Pli >25%) that have survived and are healthy at age 25

Then,

• Pli can be moved to preferred to a maximum of 25% of total well spaced stems.

General: applies to all instances

Generally, these sites will be limited to south facing aspects with slopes greater than 25%

*The test for meeting these criteria shall be evidence that stands either existed on the same site as the proposed block, or a stand immediately adjacent that fits the 5 criteria and has the same site series, slope, aspect, and topography as the proposed block. Cruise compilations and rationale should be kept on file to demonstrate the above.

Conifer Tree Species

"Ba" means amabilis fir;

"Bg" means grand fir;

"BI" means subalpine fir;

"Bp" means noble fir;

"Cw" means western red cedar;

"Fd" means Douglas-fir;

"Hm" means mountain hemlock;

"Hw" means western hemlock;

"Lt" means tamarack:

"Lw" means western larch;

"Pa" means whitebark pine;

"PI" means lodgepole pine;

"Pw" means white pine;

"Py" means ponderosa pine;

"Sb" means black spruce;

"Se" means Engelmann spruce;

"Ss" means Sitka spruce;

"Sw" means white spruce;

"Sx" means hybrid spruce or interior spruce;

"Sxs" means hybrid Sitka spruce;

"Sxw" means hybrid white spruce;

"Yc" means yellow cedar.

Broadleaf Tree Species

"Acb" means balsam poplar;

"Act" means black cottonwood:

"At" means trembling aspen;

"Dr" means red alder;

"Ep" means common paper birch;

"Mb" means bigleaf maple;

"Qg" means garry oak;

"Ra" means arbutus;

"Biogeoclimatic unit" or "BGC classification" means the zone, subzone, variant and site series described in the most recent field guide published by the Ministry of Forests for the identification and interpretation of ecosystems, as applicable to a harvested area.

"MIN or "Min" means minimum.

"P" means Preferred, "A" means Acceptable

Footnote # Footnote

1	elevated microsites are preferred
2	suitable on thick forest floors
3	restricted to coarse-textured soils
4	restricted to medium-textured soils
5	footnote retired
6	restricted to nutrient-very-poor sites
7	restricted to nutrient-medium sites
8	restricted to steep slopes
9	restricted to southerly aspects
10	restricted to northerly aspects
11	restricted to crest slope positions
12	suitable on cold air drainage sites
13	restricted to upper elevations of biogeoclimatic unit
14	restricted to lower elevations of biogeoclimatic unit
	(species not acceptable within 200m (vertical) of units max elevation)
15	restricted to northern portion of biogeoclimatic unit in region
16	restricted to southern portion of biogeoclimatic unit in region
17	restricted to western portion of biogeoclimatic unit in region
18	restricted to eastern portion of biogeoclimatic unit in region
19	restricted, not in Queen Charlotte Islands
20	restricted, not near outer coast
21	restricted to mainland
22	restricted to southern Gardner Canal-Kitlope area
23	restricted to max 20% of well spaced P&A
24	suitable (as a major species) in wetter portion of
	biogeoclimatic unit
25	suitable on sites lacking salal
26	suitable minor species on salal-dominated sites
27	partial canopy cover required for successful establishment
28	limited by moisture deficit
29	risk of heavy browsing by moose
30	risk of porcupine damage
31	risk of white pine blister rust
32	limited by growing-season frosts
33	footnote retired and replaced with footnote 'a'
34	risk of snow damage
35	risk of weevil damage
36	suitable major species on salal-dominated sites
37	risk of heart rots
38	footnote retired
39	avoid exposed and windy sites
40	risk of redheart
41	limited by poorly drained soils
42	restricted to fresh soil moisture regimes
43	suitable on mainland coast only (QCI only)
44	suitable in areas with stronger maritime influence
45	suitable in areas with stronger continental influence

Footnote #	<u>Footnote</u>
46	restricted to area north of the Dean Channel
47	risk of balsam wooly adelgid
48	risk of heavy browsing by deer
49	applies only to rust resistant, planted stock.
50	restricted to sites where the species occurs as a
	major species in a pre-harvest, natural stand
51	restricted to areas with proven PI performance
52	restricted to sheltered microsites with deep soil
53	minor component
54	risk of unsuccessful release of advance regeneration
55	acceptable in sx-sm portion of site series
#	Broadleaf Management Constraints
а	productive, reliable, and feasible regeneration option
b	limited in productivity, reliability and/or feasibility
#	Localized Footnotes
56	Kalum forest district - spruce content restricted to < 20% well
	spaced and FG trees on a standards unit due to leader weevil.
57	Arrow/Columbia forest district - Pw rust-resistant stock may
	be preferred to a max 50% of WSSpa.
	Pw naturals - accept to max 50% /plot, 10% WSSpa. Min
58	pruning ht 1.0m applies to natural Pw required to meet MSSpa Arrow forest district - Fd and Bg limited to a max 50% of
	WSSpa due to Armillaria root rot.
59	Prince George region - max 1,400 total sph of aspen and cottonwood. Treat as 'ghost' trees in surveys.
60	Squamish forest district - species is acceptable in SFD only.
61	Squamish forest district - accept on cold air drainage sites only
62	S. Island forest district - may only be used as acceptable sp. within the balsam woolly adelgid quarantine zone.
63	Queen Charlotte Islands forest district - must meet DM
00	specified Min WSS p stems per hectare and min height
	requirements for Cw and/or Yc
64	North Coast forest district - species is preferred in NCFD only.
65	North Coast FD - species is acceptable in NCFD only.
66	Mackenzie FD - may be preferred where risk of snow damage
	is low or where risk of frost damage is excessive on spruce
67	Chilliwack forest district - species is acceptable in CFD only.
68	Chilliwack forest district - species is preferred in CFD only.
69	Species is restricted to upper elevations when used in the southern portion of the biogeoclimatic unit.
70	Restricted to a maximum of 20% of WSSpa on N aspects.
71	Restricted to a maximum of 50% of WSSpa.
72	PI restricted to the extent if previously existed on site as a
	commercial energies (based on cruise or scale)

The following worksheets are included with this workbook (see tabs at the bottom of the screen):

Text <u>-Additional standards</u>, and instructions on using some Excel features associated with the guide.

DKL Footnotes - Footnotes specific to the Kootenay LakeForest District.

Footnotes from guidebook - contains definitions and footnotes for the stocking standards from the Establishment to Free Growing Guidebook, Nelson Region, May 2000.

DKLssApril2, 2003 - stocking standards for the Kootenay Lake Forest District

Additional Standards Kootenay Lake District

Maximum Density (all areas)

Max (sph) - 10,000

Post Spacing (sph): Min=700, Max=target+ 700 sph, except Pl where Max=2500

2.00

Reductions in stocking standards

Reductions in target/minimum stocking levels will be considered as separate amendments to the forest development plan on a site specific basis.

Minimum Inter-tree Distance

Trees must be the greater than or equal to the approved minimum inter-tree distance apart in order to be well spaced:

Normal standard

Minimum inter-tree distance (m) Location/condition

when sites

have not

1.70	To facilitate selection of superior planting microsites
have: well	I dispersed occurrence of standing water, well disperse

have: well dispersed occurrence of standing water, well dispersed occurrence of bedrock outcrops, mechanical site prep. Including: mounding, discing, and rough bunching, forest health (root rot), cattle congregation, riparian areas with residuals, extremely harsh sites where obstacle planting for either snow creep or shade is necessary.

1.50 For fill planting where a plantaion has failed. Regime #'s

yet been assigned for this, so they will be dealt with on a one-off basis for now.

Plantability surveys should be completed to provide justification for reducing MITD

Height of Trees Relative to Competing Vegetation

In addition to being at least the required minimum height, tree height must be greater than the following % relative to competing vegetation within a one metre radius of the trunk:

% Ht above competing veg.	<u>Location/condition</u>		
125%	ESSF IDF BGC zones		
150%	all other BGC zones		

Note: Free growing status will be evaluated using the MOF procedures in place at the time of assessment. Current procedures are defined in Appendix 9 of the Establishment to Free Growing Guidebook: Nelson, Region, May, 2002.

Minimum Leave Tree Characteristics:

Advanced Regeneration:

Advanced regeneration must meet the requirements of Appendix 10 of the Establishment to Free Growing Guidebook, Nelson Region, May 2000 to be acceptable.

Wildlife Trees:

Wildlife trees must be in accordance with the BC wildlife tree classification system as defined in the "Wildlife/Danger Tree Assessor's Course Workbook" revised February 2000.

Dispersed Strata

On standards units where dispersed, non-mappable (at a scale of 1:20000) complexes of differing site series exist, they will be identified and quantified, e.g. NAR=20 ha, stratum A=18 ha of sites series 01 and stratum B=2 ha of sites series 06. Corresponding stocking standards will apply.

Reducing the Early Free Growing Time Frame

Early free growing window may be reduced ath the discretion of the District Manager, to a minimum of 5 years from establishment in the ICH and eight years from establishment in the ESSF zones where neither potential expression of

Reference Guide for FDP Stocking Standards

	Footnote #	Footnote	Footnote #	Footnote
Conifer Tree Species	1	elevated microsites are preferred	46	restricted to area north of
"Ba" means amabilis fir;	_ 2	the Dean Channel		
"Bg" means grand fir;	3	suitable on thick forest floors	47	risk of balsam wooly adelgid
"Bl" means subalpine fir;	4	restricted to coarse-textured soils	48	risk of heavy browsing by
"Bp" means noble fir;	5	deer		
"Cw" means western red cedar;	6	restricted to medium-textured soils	49	applies only to rust resistant,
"Fd" means Douglas-fir;	7	planted stock.		
"Hm" means mountain hemlock;	8	footnote retired	50	restricted to sites where the
"Hw" means western hemlock;	9	species occurs as a		
"Lt" means tamarack;	10	restricted to nutrient-very-poor sites		major species in a pre-
"Lw" means western larch;	11 12	harvest, natural stand	51	
"Pa" means whitebark pine; "Pl" means lodgepole pine;	13	restricted to nutrient-medium sites proven PI performance	31	restricted to areas with
"Pw" means white pine;	14	restricted to steep slopes	52	restricted to sheltered
"Py" means ponderosa pine;	15	microsites with deep soil	32	restricted to sheltered
"Sb" means black spruce;	16	restricted to southerly aspects	53	minor component
"Se" means Engelmann spruce;	17	restricted to northerly aspects	54	risk of unsuccessful release
"Ss" means Sitka spruce;	18	of advance regeneration	٠.	non or unouccessial release
"Sw" means white spruce;	19	restricted to crest slope positions	55	acceptable in sx-sm portion
"Sx" means hybrid spruce or interior spruce;	20	of site series		
"Sxs" means hybrid Sitka spruce;	21	suitable on cold air drainage sites		
"Sxw" means hybrid white spruce;	22	restricted to upper elevations of biogeoclimatic unit	#	Broadleaf Management
"Yc" means yellow cedar.	23	Constraints		-
	24	restricted to lower elevations of biogeoclimatic unit		
Broadleaf Tree Species	_	restricted to northern portion of biogeoclimatic unit in region	а	productive, reliable, and
"Acb" means balsam poplar;	25	feasible regeneration option		
"Act" means black cottonwood;	26	restricted to southern portion of biogeoclimatic unit in region	b	limited in productivity,
"At" means trembling aspen;	27	reliability and/or feasibility		
"Dr" means red alder;	28	restricted to western portion of biogeoclimatic unit in region		
"Ep" means common paper birch;	29	restricted to eastern portion of biogeoclimatic unit in region		
"Mb" means bigleaf maple;	30	restricted, not in Queen Charlotte Islands	#	Localized Footnotes
"Qg" means garry oak;	31	restricted, not near outer coast	50	Malaum famant diatoiat
"Ra" means arbutus;	32	restricted to mainland	56	Kalum forest district -
"D'	33	spruce content restricted to < 20% well- restricted to southern Gardner Canal-Kitlope area		anged and free growing
"Biogeoclimatic unit" or "BGC classification" means	34 35	trees on a standards unit due to leader weevil.		spaced and free growing
the zone, subzone, variant and site series described in the most recent field guide published by the Ministry	36	restricted to trial use	57	Arrow forest district - Pw
of Forests for the identification and interpretation of	37	rust-resistant stock may be preferred to	31	ATOW Torest district - 1 W
ecosystems, as applicable to a harvested area.	38	suitable (as a major species) in wetter portion of		a max 50% of preferred and
ecosystems, as applicable to a harvested area.	39	acceptable well-spaced stems.		a max oo /o o. proior oa ana
"MIN or "Min" means minimum.	40	biogeoclimatic unit	58	Arrow forest district - Fd
	41	limited to a max 50% of preferred		
	42	suitable on sites lacking salal		and acceptable well-spaced
	43	stems due to root rot.		
	44	suitable minor species on salal-dominated sites	59	Prince George region -
	45	max 1,400 total sph of aspen and cottonwood.		
		partial canopy cover required for successful establishment		Treat as 'ghost' trees in
		surveys.		
		limited by moisture deficit	60	Squamish forest district -
		species is acceptable in Squamish forest district only.		
		risk of heavy browsing by moose	61	Squamish forest district
		only - acceptable on cold air drainage sites only.	00	O Internal formers at attended at
		risk of porcupine damage may only be used as acceptable species within the	62	S. Island forest district -
		risk of white pine blister rust		balsam woolly adelgid
		quarantine zone.		baisaili wooliy adeigid
		limited by growing-season frosts	63	Queen Charlotte Islands
		forest district - must meet district manager specified	00	Queen Onanone isidilus
		footnote retired and replaced with footnote 'a'		minimum well-spaced
		preferred stems per hectare and minimum height		

III. Referral List

BC Hydro Columbia Basin Fish & Wildlife Compensation Program Columbia Power Corporation Fortis BC Ltd.
Big Red Cats Kootenay Experience Red Mountain Resort Snowwater Heli Skiing Whitewater Ski and Winter Resort
Ktunaxa Nation Council Okanagan Nation Alliance Lower Similkameen Indian Band Okanagan Indian Band Osoyoos Indian Band Penticton Indian Band Shuswap Indian Band Splatsin First Nation Upper Nicola Indian Band Neskonlith Indian Band Adams Lake Indian Band
Lower Kootenay Band BCTS – Selkirk Forest District Interfor Kalesnikoff Lumber Ltd.
Ministry of Energy and Mines Ministry of Environment Ministry of Forests, Lands and Natural Resource Operations Ministry of Transportation – Avalanche and Weather Programs Ministry of Transportation and Infrastructure
City of Castlegar City of Nelson City of Rossland City of Trail Village of Fruitvale Village of Montrose Village of Salmo Village of Warfield

Beaver Valley Cross Country Ski Club Blackjack Cross Country Ski Club Castlegar Nordic Ski Club Castlegar Snowmobile Association Chamber of Mines Friends of the Rossland Range Kootenay Columbia Trail Society Nelson Cycling Club Nelson Nordic Ski Club Nelson Sno-Goers Salmo Snow Drifters Trail Wildlife Association West Kootenay Snow-Goers
Regional District Kootenay Boundary (RDKB) Regional District of the Central Kootenays (RDCK)
Beaver Falls Waterworks District (Bath Cr.) Blewett Watershed Committee (Eagle/Sandy Cr.) Taghill Water User Committee Georama Road Water Users Sandy Granite Water Users Committee Glade Irrigation District Robson Raspberry Improvement District (Ladybird Cr.) Oasis Rivervale Improvement District

'Note: Watershed Groups that have been referred this plans are groups that Atco Wood Products Ltd. has established and maintained a long-standing working relationship with respect to forest development in there watersheds. Due to the lack of specific proposed developments shown in each FDU, individual water license holders will not be provided with a direct referral letter during the public advertisement of this FSP. They will be notified of proposed development activities as the stand level developments are proposed within the larger FDU's.

IV. First Nation Referral Letter

August 15, 2016

«Company» «Address1» «City», «Province» «PostalCode»

Attn: To Whom It May Concern:

Re: Atco Wood Products Ltd. – 2016-2021 draft Forest Stewardship Plan

Atco Wood Products Ltd. (Atco) is currently drafting a Forest Stewardship Plan (FSP) that will encompass the southern portions of the Arrow and Kootenay Lake Timber Supply Areas (FL A20193 & FLA20218 respectively) under one plan. The plan is comprised of 2 Forest Development Units (FDU's), one in the Arrow and the other in Kootenay Lake; both within the Selkirk Forest District.

The FSP is a landscape-level plan that identifies how the holder of the plan will be consistent with government objectives for managing and protecting forest and range values through the results, strategies and measures proposed in the plan. Once approved, the FSP will guide future forest development, including road construction, timber harvesting and silviculture activities.

It is important to note that the FSP is a management document and does not show actual locations of specific proposed cut blocks or roads. A separate referral will be sent once this development layout is known.

The draft Atco FSP will be available for public review and written comments from August 15, 2016 to October 14, 2016, during regular business hours (7:00 a.m. to 4:00 p.m., Monday to Friday) at the office address noted below. An electronic copy of the draft FSP has been attached with the email sent to you with this letter.

If you have questions or would like to arrange a meeting, do not hesitate to contact me at 250-367-2525.

In order for comments to be considered prior to submission of the FSP for approval they must be received on or before October 14, 2016. Written comments may be mailed, delivered in person or sent by email.

Ron Ozanne Forestry Manager Email: ron.ozanne@atcowoodproducts.com
RO/nh

Sincerely,

Encl.

V. Public Review and Comment						
_	Atso Wood Products Ltd	ng 79	Forest	Stowardship Plan (ESD)		