



*"Take Care Of The Land,
And The Land Will Take Care of You."*

FOREST STEWARDSHIP PLAN

#597 – Amendment 2

2016 TO 2021

The Forest Stewardship Plan is a requirement of the Forest Range and Practices Act (2004). The Forest Stewardship Plan is a landscape level plan, which is focused on establishing strategies and results for conserving and protecting timber and non-timber resource values for forest management activities over the life of the plan.

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1.0 SIGNATURES

1.1 Signature of Person Required to Prepare a Forest Stewardship Plan


Kalesnikoff Lumber Company Ltd.

Name:  _____
Ken Kalesnikoff, CEO

Date: December 28, 2018

1.2 Signature of Preparing Forester

Preparing Forester

Name:  _____
Tyler Hodgkinson, RPF #3984

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

Date: December 28, 2018

2.0 APPLICATION OF THE FOREST STEWARDSHIP PLAN

This Forest Stewardship Plan applies to Kalesnikoff Lumber Company Ltd. Forest Licence A20194 and A30172.

The provisions of this Forest Stewardship Plan do not apply to the extent necessary to allow the licence holder and its employees, servants, agents, contractors and sub-contractors to carry out fire control or suppression in accordance with the enactment.

2.1 Forest Stewardship Plan Holder and Licence

This Forest Stewardship Plan applies to each Cutting Permit and Road Permit issued or granted to the licence holder:

- a) after the term of this Forest Stewardship Plan commences,
- b) within approved Forest Development Unit boundaries and
- c) under or in respect of the licences listed in Table 3.1.1.

Table 2.1.1 Licences

| Timber Supply Area | Licence |
|---------------------------|----------------|
| Arrow | A20194 |
| Kootenay Lake | A30172 |

3.0 TERM OF THE FOREST STEWARDSHIP PLAN

The term of this Forest Stewardship Plan

- a) shall be, as per Forest and Range Practices Act section 6(1)(a), 5 years and
- b) may be terminated earlier than 5 years if the Forest Stewardship Plan holder chooses to replace it with another approved Forest Stewardship Plan and
- c) as per Forest and Range Practices Act section 6(2), may be extended by the minister pursuant to applicable
- d) Acts and Regulations and
- e) is to commence on the day the Delegated Decision Maker grants approval to the document.

4.0 OTHER PLANS

4.1 Kootenay Boundary Higher Level Plan Order

The licence holder is required to act in a manner that is consistent with the objectives established in the Kootenay Boundary Higher Level Plan Order, which came into effect on October 26, 2002 along with its subsequent variances.

4.2 Forest Stewardship Plan Holder Plans

The licence holder's Environmental Management Plan provides supporting information for this plan. The plan was prepared to ensure a consistent approach to planning is undertaken within licence holder's operations. If requested, this document will be available as background to the main Forest Stewardship Plan, but is not considered part of the legal realm of the Forest Stewardship Plan.

4.3 Operating Areas

The Arrow and Kootenay Lake Timber Supply Areas are currently subdivided into operating areas for each forest licensee and British Columbia Timber Sales. They are a commercial arrangement between forest licensees and British Columbia Timber Sales to facilitate efficient land management and logging activities. Whereas the operating areas are integral to the licence holder's primary forest management activities, operating areas are not considered part of the legal realm of the Forest Stewardship Plan.

Relates to: [11.1](#) of this document.

Operating areas are located on the licence holder's website; follow the *download operating area maps* link to view operating areas.

<http://www.kalesnikoff.com/stewardship/forest-stewardship-plan/>

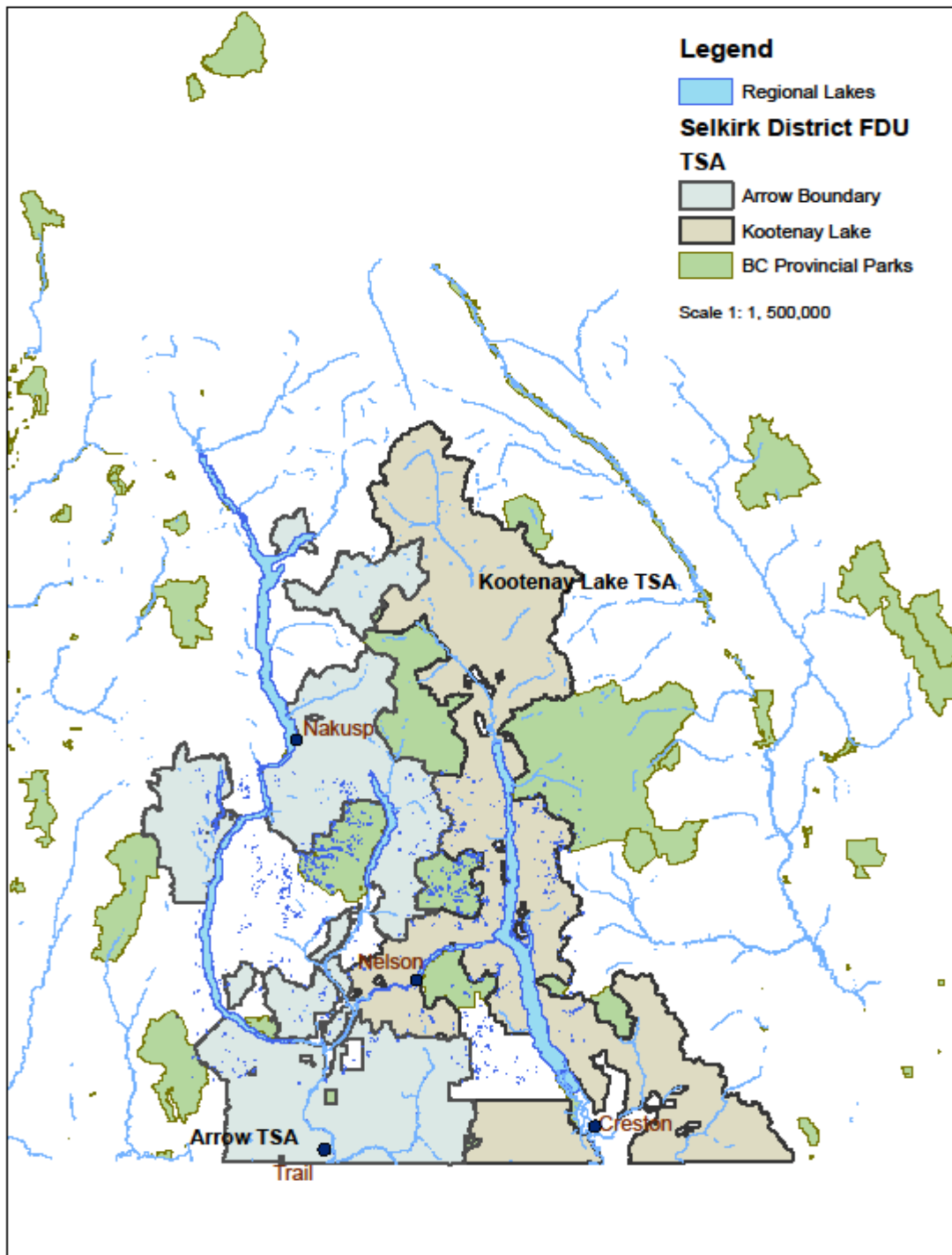
The operating area maps illustrate where the licence holder will be conducting timber harvest activities associated with new cutting permits. The operating area maps will be updated annually by April 1st of each year.

5.0 AREA

The Forest Stewardship Plan Forest Development Units cover the entire area of Arrow and Kootenay Lake Timber Supply Area, while excluding all private land, parks and actively managed area-based tenures including Woodlots, Community Forests and Tree Farm Licences.

5.1 Overview Maps

The following map shows the boundaries of the two Forest Development Units the Forest Stewardship Plan covers.



5.2 Forest Development Unit Maps

A detailed map of the Arrow Forest Development Unit is in [Appendix A](#).

A detailed map of the Kootenay Lake Forest Development Unit is in [Appendix B](#).

6.0 STRATEGIES AND RESULTS IN RELATION TO OBJECTIVES

This section describes the set legal objectives established through legislation, regulations and the Kootenay Boundary Higher Level Plan Order. Practice requirements results or strategies in relation to set objectives are specified as they pertain to all of the area subject to the plan.

6.1 Objectives Set by Government

6.1.1 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.

6.1.1.1 Biodiversity Emphasis

Objective: *To contribute to the conservation of biodiversity, through the assignment of biodiversity emphasis to each landscape unit.*

Relates to: [6.1.2.6](#) of this document.

Practice Requirements – Strategy:

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

6.1.1.2 Old and Mature Forest

Objective: *To maintain mature forests and old forests to levels indicated in the Kootenay Boundary Higher Level Plan.*

Relates to: [6.1.2.6](#) of this document.

Practice Requirements – Strategy and Result:

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

Old Forest Requirements Strategy:

Old Forest requirements are the most important component of the effort to manage for the conservation of biological diversity. This requirement is 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, where modifications to the boundaries of established Old Growth Management Areas can be implemented as long as the modification is replaced by a commensurable area with similar forest attributes, or where a Qualified Registered Professional determines that a forest stand has sufficient biological value to be a Mature or 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 Qualified Registered Professional 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, Old Growth Management Areas 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.

Old Growth Management Area modifications will be assessed and approved by a Qualified Registered Professional, where a written rationale and accompanying map denoting the modifications will be prepared and kept on record.

Old plus Mature Forest Requirement Strategy:

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 Kootenay Boundary Higher Level Plan Order 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).

6.1.1.3 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.*

Relates to: [6.2.1.6](#) of this document.

Practice Requirements – Result:

Pursuant to section 93.4 of the Land Act variance order 09 amends the Kootenay Boundary Higher Level Plan, thereby cancelling Caribou Management Zones established in objective 3.

6.1.1.4 Green-up

Objective: *To establish green-up heights.*

Relates to: [6.1.2.6](#) of this document.

Practice Requirements – Result:

The licence holder will undertake to comply with Objective 4 of Kootenay Boundary Higher Level Plan Order.

6.1.1.5 Grizzly Bear Habitat and Connectivity Corridor

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

Relates to: [6.2.1.5](#) of this document.

Practice Requirements – Strategy and Result:

The licence holder will undertake to comply with Objective 5 of Kootenay Boundary Higher Level Plan Order.

6.1.1.6 Consumptive Use Streams

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

Relates to: [6.1.2.3](#) of this document.

Practice Requirements – Strategy and Result:

The licence holder will undertake to comply with Objective 6 of Kootenay Boundary Higher Level Plan Order.

For each S5 and S6 stream where the 30 meter streamside management zone applies, the licence holder will plan and implement primary forest activities only if in the opinion of a Qualified Registered Professional the activity will not cause material that is harmful to human health to be deposited in or transported to water that is diverted for human consumption. The licence holder will undertake to comply with practice requirements described in section [6.1.2.3](#) 'Water, Fish, Wildlife and Biodiversity within Riparian Areas' as a measure to safeguard water licensed for human consumption.

6.1.1.7 Enhanced Resource Development Zones - Timber

Objective: *To support intensive forest management.*

Practice Requirements – Strategy:

The licence holder will undertake to comply with Objective 7 of Kootenay Boundary Higher Level Plan Order.

6.1.1.8 Fire-Maintained Ecosystems

Objective: *To restore and maintain the ecological integrity of fire-maintained ecosystem components in NDT 4.*

Practice Requirements – Strategy and Result:

The licence holder will undertake to comply with Objective 8 of Kootenay Boundary Higher Level Plan Order.

6.1.1.9 Visuals

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

Relates to: [6.1.2.8](#) and [6.2.1.3](#) of this document.

Practice Requirements – Strategy and Result:

In accordance with Government Actions Regulations section 7; scenic areas identified on Map 9.1 of the Kootenay Boundary Higher Level Plan Order have been replaced with new scenic areas in which visual quality objectives have been established. The licence holder will undertake to comply with Objective 9 of Kootenay Boundary Higher Level Plan Order to the extent of conserving the quality of view. In consideration of Government Actions Regulations section 7, the licence holder will undertake to comply with established scenic areas and Visual Quality Objectives.

6.1.2 Objectives prescribed under Forest and Range Practices Act s. 149(1)

The Lieutenant Governor in Council made regulations prescribing objectives in relation to the following:

6.1.2.1 Soils

Legal reference: Forest Planning and Practices Regulation section 5 and 12.1(1)

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.*

Practice Requirements – Result:

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

6.1.2.2 Wildlife

Legal reference: Forest Planning and Practices Regulation section 7 and Government Actions Regulations section 9 to 13

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.*

Relates to: [6.2.1.4](#), [6.2.1.5](#), [6.2.1.6](#) and [6.2.1.7](#) of this document.

6.1.2.2.1 Species at Risk

Pursuant to section 7(3), the licence holder is exempt from the obligation to prepare results or strategies in relation to the objective set out in section 7(1) of the Forest Planning and Practices Regulation 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 Coeur d' Alene Salamander and Flammulated Owl are the exception, where the required amount and distribution of Wildlife Habitat Areas have not been satisfied. The strategy for training, reporting and practice listed below detail how the licence holder will ensure its staff and contractors are able to identify potential wildlife habitat for the survival of such species and other species at risk.

Forest Planning and Practices Regulation 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 licence 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

Practice Requirements – Strategy and Result:

Training:

Annual training will be conducted by the licence holder to support the licence 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 amount, distribution and attributes of wildlife habitat required for the survival of Coeur d' Alene Salamander and Flammulated Owl have not been satisfied. In an effort to conserve sufficient wildlife habitat, the licence holder will include a review of the amount, distribution and attributes listed in section 7 notices.

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 licence 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.

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

Practice:

In an effort to reduce the impact of forest development on species at risk, during the planning process, the licence 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 Qualified Registered Professional has assessed and provided recommendation. Continuance of operational activities is to be consistent with the recommendations of the Qualified Registered Professional.

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

- The licence holder will only conduct primary forestry activities consistent with the requirements in Wildlife Habitat Area orders.
- Licence 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 Qualified Registered Professional if attempting to restore or enhance habitat.

6.1.2.2.2 Ungulate Winter Range

See Section [6.2.1.4](#) and [6.2.1.6](#) of this document.

6.1.2.3 Water, Fish, Wildlife and Biodiversity within Riparian Areas

Legal reference: Forest Planning and Practices Regulation section 8, 12(3) and 12.1(2)

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.*

Relates to: [6.1.1.6](#) of this document.

Practice Requirements – Strategy and Result:

The licence holder will undertake to comply with Forest Planning and Practices Regulation section 47 to 52(2) and 55 to 58.

Stream Channel Strategy:

The licence holder will maintain stream channel integrity on all streams, wetlands and lakes. Streams, wetlands and lakes that do not have a riparian reserve zone will have a minimum 5 meter machine free zone established, with the exception of designated crossings. Designated crossing will be constructed in a manner to which deposition of construction waste and overburden will be disposed outside the riparian reserve zone or a minimum of 5m from the stream bank whichever is greater. Within the riparian management area designated crossings will retain as much understory vegetation as possible to prevent soil erosion. Removal of vegetation will be kept to a minimum while meeting operational and safety objectives for the crossing structure and its approaches. Including designing and constructing approaches perpendicular to the watercourse in order to minimize loss or disturbance of riparian vegetation, thereby reducing impacts to the wildlife and fish habitat adjacent to the crossing site.

The licence holder will undertake to avoid disturbance of stream banks and prevent deposition of debris in the channel by falling and yarding away from streams where practicable. Where trees must be felled across the stream for safety and operational reasons, the licence holder will attempt to lift trees rather than drag them out. The strategy of lifting trees will not be complied with when utilizing cable yarding systems as it may not be possible to achieve sufficient lift to suspend the entire tree.

Retention of Trees in Riparian Management Zone:

Riparian management zones will be assessed by a Qualified Registered Professional who will prescribe site-specific management regimes, which may including the species, quality, quantity and distribution of trees selected for retention. The trees selected for retention may be located in clumps or evenly distributed considering local conditions, including, but not limited to the potential impact to stream bank and channel integrity, water quality, windthrow, forest health, snags, deciduous, non-merchantable stems, understory vegetation and valuable wildlife habitat. Care will be given to the relative importance of water quality and sensitivity of the riparian feature in question. Safety considerations and adherence to Worker's Compensation Board regulations will play a key role in determining the site-specific management.

| Riparian Class | Target Level of Stems/ha |
|--|---------------------------------|
| S1-A, S1-B, S2, W1, W5, L1-B | 20 – 100% |
| All other classes | 0 – 100% |
| The licence holder will ensure the percentage of the total stems/ha within the riparian management zone specified in the target level of stems/ha is left as standing trees. | |

6.1.2.4 Fish Habitat in Fisheries Sensitive Watersheds

Legal reference: Forest Planning and Practices Regulation section 8.1

Practice Requirements:

There are no fisheries sensitive watersheds in the Forest Development Units under this Forest Stewardship Plan.

6.1.2.5 Water in Community Watersheds

Legal reference: Forest Planning and Practices Regulation section 8.2

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.*

Practice Requirements – Strategy and Result:

The licence holder will undertake to comply with Forest Planning and Practices Regulation section 59 to 63.

Community Watershed Strategy:

For the purposes of this section, 'hydrological assessment' is a professional level analysis of existing and/or future forest development related effects on hydrologic and geomorphic processes in a watershed. A 'hydrological assessment' may include but is not limited to:

- Identifying fans and delineating watersheds.
- Identifying elements-at-risk in watersheds and on fans.
- Identifying historical and current, hydrologic and geomorphic processes affecting runoff, the frequency and magnitude of peak flows, sediment delivery and sediment transport in a watershed.
- A qualitative risk analysis that assesses the sensitivity of the watershed to changes in the magnitude and frequency of hazardous peak flows, increases in sediment delivery or changes to riparian function, and determining changes in the likelihood for impacts (consequence and hazard) to elements at risk, given past development/disturbance and future forest development.

The hydrological assessment must include recommendations or establish thresholds for forest management to minimize changes in the likelihood of impacts to elements at risk.

Hydrological assessments will be conducted in advance of new developments and are intended to provide guidance for: forest planning, harvesting, road construction or permanent deactivation. Hydrological assessments will be considered relevant and current up to 10 years or until appreciable change has occurred beyond the limits of recommendations or thresholds established in the original assessment. Appreciable change is defined as a change to the disturbance level and/or forest development that could increase the qualitative risk to elements previously identified as at risk. If proposed development is expected to exceed the limits of recommendations or thresholds established in a current assessment then a new assessment will be required.

Planning and implementation of operational activities will be consistent with the recommendations of the hydrological assessment as determined by a Qualified Registered Professional.

Exception to the Strategy:

When there is not a relevant or current hydrological assessment; a development associated with forest health, salvage and/or site level overlap from an adjacent sub-basin will not require a hydrological assessment of the entire watershed if the development is less than, or equal to, 2% of the watershed area.

6.1.2.6 Wildlife and Biodiversity – Landscape Level

Legal reference: Forest Planning and Practices Regulation section 9.

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

Relates to: [6.1.1.1](#), [6.1.1.2](#), [6.1.1.4](#), and [Appendix C](#) of this document.

Practice Requirements – Strategy and Result:

The licence holder will undertake to comply with Forest Planning and Practices Regulation section 64 and 65.

Pursuant to objective 4 of the Kootenay Boundary Higher Level Plan Order, when the licence holder plans and designs harvesting, the 3m minimum height will be changed to 2.5m in Forest Planning and Practices Regulation section 65(3)(a) and 65(3)(b)(ii) for areas adequately stocked.

In circumstances where the licence holder harvest activities are to be conducted in co-operation with scientific studies developed by a Provincial or Federal Government agency and/or research institutions, the requirements of section 64 may be exceeded. The licence holder will ensure that the size of the net area to be reforested for the cutblock is limited to the extent necessary by the study. A letter of support from the District Manager will be required.

6.1.2.7 Wildlife and Biodiversity – Stand Level

Legal reference: Forest Planning and Practices Regulation section 9.1

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.*

Practice Requirements – Strategy and Result:

The licence holder will undertake to comply with Forest Planning and Practices Regulation section 66, 67 and 68 with the following additions:

Species and Characteristics:

Trees of all species occurring within Forest Development Units 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, loose 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. In addition, deciduous leaf litter has been identified as essential for the survival of many amphibian species and will be a preferred leave tree.

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. Where there are no opportunities of developing valuable wildlife tree attributes and/or protecting habitat features, wildlife tree retention areas will be representative of the pre-harvest stand.

Individual Wildlife Trees:

For purposes of measuring the contribution of individual wildlife trees, and where the site plan prescribes dispersed retention, the individual wildlife trees are to be included along with the aggregate patches in the total amount of wildlife tree retention. Areas of individual trees, clumps or patches which are less than 0.25 hectares in size are to contribute on the basis of the total basal area of the trees divided by the average basal area/ha of the original stand. This will yield the equivalent number of hectares of wildlife tree retention area.

Restriction on harvesting:

Wildlife trees may be removed, but:

1. only to the extent necessary:
 - a) to address a safety hazard,
 - b) to address timber that has been windthrown or damaged by fire, insect or disease,
 - c) to address timber in imminent danger of being infested with insects or diseases which threaten the health of adjacent trees,
 - d) to facilitate construction of road right of way,
 - e) to address terrain constraints for road or trail construction and cable yarding.
2. only to the level determined by a Qualified Registered Professional.

If providing access to adjacent stands the number of high quality wildlife trees removed will be kept to a minimum.

If wildlife trees are removed from a cutblock an alternate area of equal size and similar attributes within, adjacent or non-contiguous to the impacted cutblock will be located and established. The licence holder will specify one or more wildlife tree retention areas that provide an area,

number of trees or habitat that is equivalent to the portion of the wildlife tree retention area from which the timber is being harvested.

6.1.2.8 Visual Quality

Legal reference: Forest Planning and Practices Regulation section 9.2

Relates to: [6.1.1.9](#) and [6.2.1.3](#) of this document.

Objective: *This objective set by government does not contain specific text within the Forest Planning and Practices Regulation as specified in other objectives set by government. This objective set by government has a corresponding objective as contained in the Kootenay Boundary Higher Level Plan Order and Selkirk Forest District Level Visual Quality Objectives established prior to October 24, 2002, continued under Section 181 of Forest and Range Practices Act and Section 7 of the GAR.*

The results and strategies provided for this objective attempts to clarify the relationship between the Kootenay Boundary Higher Level Plan Order objectives for visuals (Scenic Areas and Classes) and the Selkirk Forest District Level Visual Quality Objectives grandfathered under Forest and Range Practices Act.

Arrow Forest Development Unit:

In accordance with Government Actions Regulations section 7(1) 'Order for the Establishment of Visual Quality Objectives and Scenic Area for the Arrow Boundary Forest District', scenic areas identified on Map 9.1 of the Kootenay Boundary Higher Level Plan Order have been replaced with new scenic areas, effective December 31, 2005. In consideration of the Government Actions Regulations Order, the objective in Forest Planning and Practices Regulation section 9.2 no longer applies.

Kootenay Lake Forest Development Unit:

The results and strategies for visual quality objectives established by the District Manager are the requirements specified by the District Manager's Government Actions Regulations section 7(2) notice of March 7, 2014. In consideration of the Government Actions Regulations Order, the objective in Forest Planning and Practices Regulation section 9.2 no longer applies.

6.1.2.9 Cultural Heritage Resources

Legal reference: *Forest Planning and Practices Regulation section 10*

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

Practice Requirements – Strategy:

The licence holder is committed to continual information sharing and will refer all forest development plans with the appropriate First Nations. A written 30-day notification with a map, shapefiles and Google Earth files 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 licence holder's forest development activities. The licence 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 licence 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 Forest Development Units. The licence holder will carefully consider all harvest activities on areas with Archeology Overview Assessment polygons and will seek the advice of a Qualified Registered Professional before proceeding with activities that cause the licence holder concern. If a proposed development overlaps with a known archaeological site or high Archeology Overview Assessment polygon the licence holder will obtain the advice of an archaeologist.

It is understood that there is always a limited possibility that unknown archaeological sites exist in the Forest Development Units. 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 licence 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 licence holder respects all of the First Nation's Aboriginal Interests equally, and will work towards fostering productive long-term relationships.

6.2 Other Objectives Established by Government

6.2.1 Objectives Prescribed Under the Government Actions Regulation

6.2.1.1 Resource Features

Legal reference: *Government Actions Regulations section 5 and Forest Planning and Practices Regulation section 70*

Objective: *An authorized person who carries out a primary activity must ensure that the primary forest activity does not damage or render ineffective a resource feature.*

Practice Requirements:

There are no resource features identified in the Arrow and Kootenay Lake Timber Supply Areas.

6.2.1.2 Wildlife Habitat Features

Legal reference: *Government Actions Regulations section 11 and Forest Planning and Practices Regulation section 70*

Objective: *An authorized person who carries out a primary activity must ensure that the primary forest activity does not damage or render ineffective a wildlife habitat feature.*

Practice Requirements:

There are no wildlife habitat features identified in the Arrow and Kootenay Lake Timber Supply Areas.

6.2.1.3 Visuals

Legal reference: *Government Actions Regulations section 7*

Relates to: [6.1.1.9](#) and [6.1.2.8](#) of this document.

Practice Requirements – Result:

The licence holder will undertake to comply with the 'Arrow Boundary Forest District December 31, 2005' and 'Kootenay Lake Timber Supply Area March 7, 2014' Government Actions Regulations section 7 orders.

Strategy:

The Government Actions Regulations section 7 orders designate scenic areas within Arrow and Kootenay Lake Forest Development Units and provide context to meet the Visual Quality Objectives of the scenic area designations. The licence 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 Forest Planning Practices Regulation section 1.1 with cutblock design and in-block retention of standing timber to achieve the established Visual Quality Objective.

Where the established Visual Quality Objective limits are not practicable given the circumstances or conditions to a particular area, an exemption under section 12(7) of the Forest Planning and Practices Regulation, from the requirement of section 25.1 of the Forest Planning and Practices Regulation, will be applied for prior to applying for a cutting permit.

6.2.1.4 Ungulate Winter Range

Legal reference: *Government Actions Regulations section 9(2) and 12(1)*

Relates to: [6.1.2.2](#) of this document.

Practice Requirements – Strategy and Result:

The licence holder will undertake to comply with Ungulate Winter Range order U-4-001.

6.2.1.5 Wildlife Habitat Areas

Legal reference: *Government Actions Regulations section 9(2) and 10(1)*

Relates to: [6.1.2.2](#) of this document.

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.*

Practice Requirements – Strategy and Result:

The licence holder will comply with orders that establish Wildlife Habitat Areas necessary to meet the habitat requirements of identified wildlife.

The licence holder will keep up to date with new information as it is made known by utilizing the Ministry of Environment species at risk approved Wildlife Habitat Areas website:

http://www.env.gov.bc.ca/cgi-bin/apps/faw/wharesult.cgi?search=show_approved

The website currently lists the following Wildlife Habitat Areas which the licence holder will undertake to comply: 4-011, 4-012, 4-013, 4-014, 4-015, 4-016, 4-017, 4-018, 4-019, 4-020, 4-021, 4-022, 4-023, 4-024, 4-025, 4-026, 4-027, 4-028, 4-029, 4-030, 4-031, 4-033, 4-036, 4-064, 4-093, 4-094, 4-095, 4-096, 4-097, 4-098, 4-104, 4-105, 4-107, 4-113, 4-180 and 8-140.

The licence holder will conduct primary forest activity consistent with the requirements in Wildlife Habitat Area orders.

6.2.1.6 Caribou

Legal reference: *Government Actions Regulations section 9(2) and 12(1)*

Relates to: [6.1.2.2](#) and [6.1.2.2.2](#) of this document

Practice Requirements – Strategy and Result:

The licence holder will undertake to comply with Ungulate Winter Range order U-4-012, U-4-013 and U-4-014.

6.2.1.7 Grizzly Bear

Legal reference: *Government Actions Regulations section 9(1)*

Relates to: [6.1.1.5](#) and [6.1.2.2](#) of this document.

Practice Requirements – Strategy and Result:

The licence holder will undertake to comply with General Wildlife Measure order 8-373.

6.2.2 Objectives for Items Listed in Section 181 of Forest and Range Practices Act

6.2.2.1 Interpretive Forest Sites, Recreation Sites or Recreation Trails

Legal reference: *Forest and Range Practices Act section 180 and 181*

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.*

Practice Requirements – Strategy and Result:

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 Forest and Range Practices Act, will be applied for in relation to that area.

Practice:

The licence holder will ensure, where infringement on interpretive forest sites, recreation sites or recreation trails is likely, the local Recreation Officer 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.
- The experience of the user should be visually maintained to the extent practicable by avoiding damage to vegetation other than commercial timber and the removal of safety hazards.

7.0 MEASURES

7.1 Preventing the Introduction and Spread of Invasive Plants

Legal reference: *Forest and Range Practices Act section 47 and Forest Planning and Practices Regulation 17*

Practice Requirements – Measure:

The following measures will be implemented to reduce the introduction and spread of invasive plants that may result from the licence 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.

Reporting:

Should any of the priority invasive plants be observed outside of known infestation areas, the licence 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

Practice:

In an effort to reduce the introduction and spread of invasive plants, during the planning process, the licence 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 licence 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.

- Ensure equipment and clothing is invasive plant free by remove plant parts before leaving infested areas.
- Minimize soil disturbance.
- Within a year following disturbance, but not exceeding two years, to reduce the available seedbed for invasive plants by grass seeding.
- Obtain certified grass seed from reputable suppliers to ensure premium quality free of invasive plant seed.
- Establish well stocked stands of trees that will eventually suppress invasive plants.

7.2 Mitigating the Loss of Natural Range Barriers

Legal reference: *Forest and Range Practices Act section 48 and Forest Planning and Practices Regulation 18*

Practice Requirements – Measure:

The following practice will be applied to mitigate the loss of natural range barriers that may result from the licence holder forest practices:

Practice:

Before applying for roads and/or cutting permits the licence 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 licence 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.

8.0 STOCKING STANDARDS

Legal reference: Forest Planning and Practices Regulation section 16, 44 and 197

Practice Requirements – Results:

The licence holder elects to use the Selkirk Resource District South Columbia default stocking standards and Fire Management / Wildland Urban Interface stocking standards, as amended from time to time, for both the Arrow and Kootenay Lake Forest Development Units.

The licence holder may elect to use the Chief Forester and Kootenay Lake District default stocking standards, as amended from time to time, for both the Arrow and Kootenay Lake Forest Development Units for Site Plans established prior to April 2018.

Wildfire Interface Stocking Standards were approved in Forest Stewardship Plan #26 and will continue to be used in prescribed conditions.

Forest Stewardship Plan #26 Wildfire Interface Stocking Standards are itemized in [Appendix D](#).

Section 197 election:

Forest and Range Practices Act 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 Forest Stewardship Plan stocking standards.

Early Free Growing:

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.

9.0 CUMULATIVE EFFECT OF MULTIPLE FOREST STEWARDSHIP PLANS

Legal reference: Forest Planning and Practices Regulation section 19

Practice Requirements – Strategy:

Where applicable: The Forest Stewardship Plan must address the cumulative effect of multiple Forest Stewardship Plans in an area. The licence holder will communicate its intentions to other licensees and BC Timber Sales in areas with multiple Forest Stewardship Plans as to proactively address and resolve landscape unit level issues prior to cutting permit application. If the holders of a Forest Stewardship Plan, within an area with multiple Forest Stewardship

Plans, 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 Forest and Range Practices Act.

10.0 Public Review and Comment

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

Practice Requirements – Strategy:

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 mailed out to potentially affected stakeholders. In addition, public meetings were held in Boswell, Glade and Riondell, and a presentation was made to the Regional District Central Kootenay during their October meeting. News reporters from the Nelson Star, GOAT fm and Nelson Coop Radio all posted articles and interviews detailing the review and comment of the Forest Stewardship Plan.

The Forest Stewardship Plan was made available for public review and comment at the licence holder's office during regular business hours 8 a.m. to 4 p.m. Monday through Friday for a period of 80 days (Aug 10, 15 to Nov 1, 15). Additionally, the Forest Stewardship Plan was posted on the licence holder's website (www.kalesnikoff.com) with a link for the public to provide written comments on the plan. 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. A meeting was conducted with the Lower Kootenay Indian Band on September 28, 15. Summary of written comments received as well as revisions made during the referral period are found in [Appendix E](#).

Written comments specific to the Forest Stewardship Plan were 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 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 with a map illustrating the location of planned forest development will be referred to potentially affected stakeholders. The written notice will provide stakeholders with a 30 day review and comment period prior to cutting permit application.

The objective of this notice is to provide potentially affected stakeholders with an opportunity to identify areas of concern to ensure that concerns are addressed to the extent practicable prior to the development of an area of crown land allocated for the licence holder's primary forest activities. The licence holder will document and keep on record any information provided by the stakeholder, this will include how planned activities will or will not accommodate identified concerns.

As indicated by various Provincial Government registries, stakeholders whose rights may be affected may include forest tenure holders, Regional District Central Kootenay, trappers, guide outfitters, ranchers, interpretive forest sites, recreation sites, resort tenures, recreation trails, First Nations, community watersheds, points of diversion and private land adjacent to proposed development.

Public Referrals:

Relates to: [4.3](#) of this document.

The licence holder will maintain the following Forest Stewardship website link:

<http://www.kalesnikoff.com/stewardship/forest-stewardship-plan/>

The website link provides access to the Forest Stewardship Plan and accompanying maps, to which the public and stakeholders are able to identify where the licence holders primary forest activities will take place.

Continual information sharing will ensure transparency and open a communication path to which public and stakeholders concerns can be made known, so concerns may be addressed prior to the development of an area for crown land allocated for the licence holder's primary forest activities. Comments specific to the Forest Development Units and Operating Areas will be accepted anytime and will be recorded and kept on record to ensure that comments are considered at the development stage.

The operating area maps found on the licence holder's website will illustrate where the licence holder will be conducting primary forest activities associated with forest development. The operating area maps will be updated by April 1st of each year.

11.0 RATIONALE

11.1 Rationale for Timber Supply Area Forest Development Units

Relates to: [4.3](#) of this document.

The licence holder has designed two Forest Development Units within Arrow and Kootenay Lake Timber Supply Areas. The Forest Development Units cover the entire area of Arrow and Kootenay Lake Timber Supply Area, while excluding all actively managed area-based tenures including Community Forests, Tree Farm Licences and Woodlots.

The two Forest Development Units will support unallocated operating areas, incidental site level overlaps and the integration of new operating areas.

Both Forest Development Units overlap with other licensees and British Columbia Timber Sales operating areas. The licence holder does not intend to infringe on these operating areas or break commercial arrangements, but expects to increase efficient forest planning and speedier

permitting when confronted with incidental site level overlaps, cutting permit purchases and/or the integration of new operating areas.

The licence holder commits to up front communication when planning timber development in areas outside its operating areas and will refer proposed development plans with the appropriate licensee and/or British Columbia Timber Sales. The licence holder will work with the other licensees and British Columbia Timber Sales by maintaining non-spatial results and strategies that may be present in the areas of interest.

11.2 Stocking Standards and Early Free Growing

Relates to: [8.0](#) of this document.

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 and declare free growing.

Today's silviculture is frequently achieving free growing prior to the early free growing date. Practices such as better-quality nursery stock, site preparation, prompt regeneration, fertilization and the use of A-class seed are enabling the early achievement of free growing. The elimination of the early free growing date is an incentive to encourage these practices, in return for prompt relief of obligations. Some of these practices are investments over-and-above standard practice and the benefit of achieving free growing sooner ought to be realized as a result. The early free growing date can be a deterrent as it discourages silviculture investment due to the delay it can cause in declaring free growing when stocking standards have already been achieved.

Precedence has been established with the early free growing date as many approved Forest Stewardship Plans omitted it in their stocking standards.

12.0 REFERENCES

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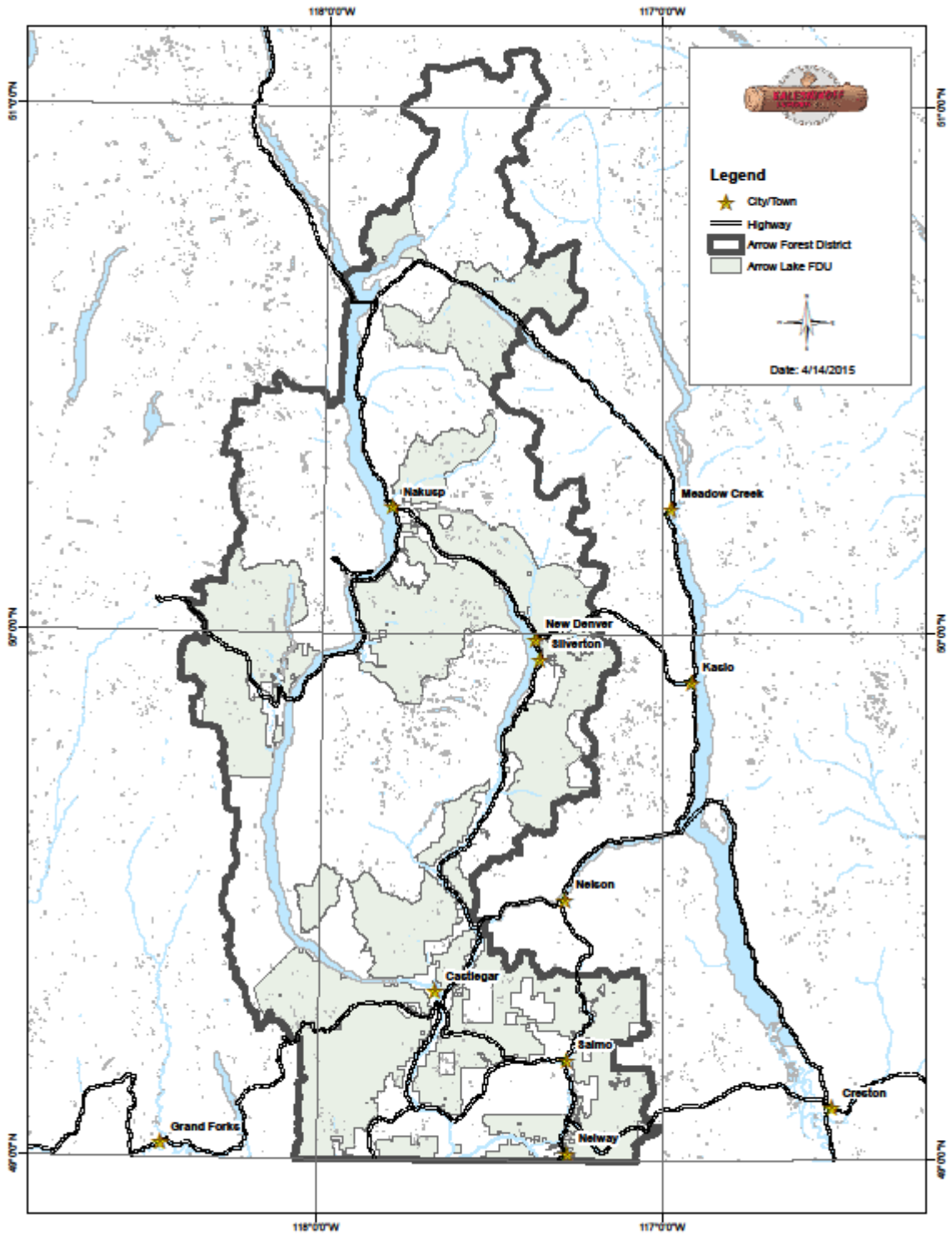
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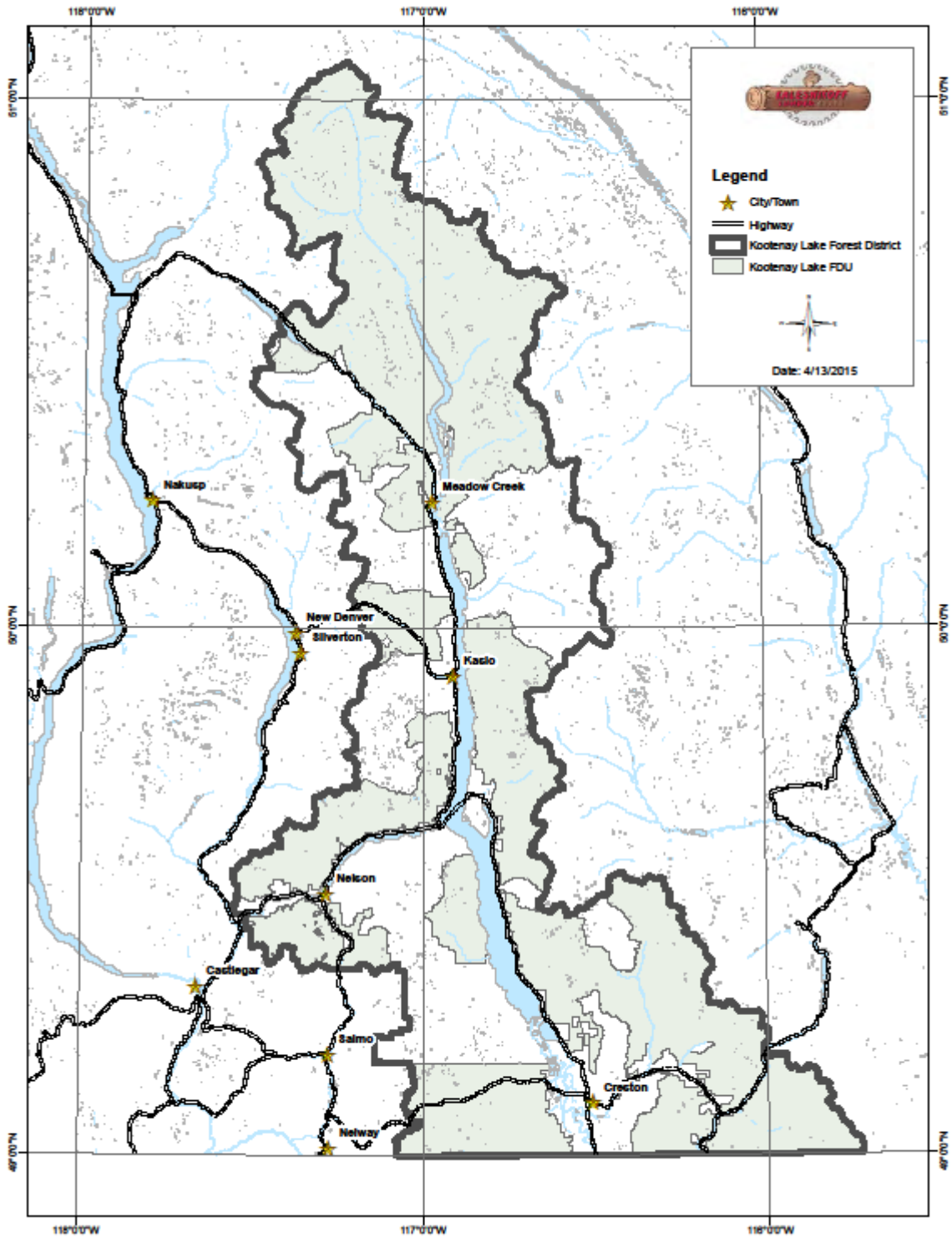
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13.0 APPENDICIES

Appendix A Arrow Forest Development Unit



Appendix B Kootenay Lake Forest Development Unit



Appendix C Wildlife and Biodiversity – Landscape Level Strategy

Relates to: [6.1.2.6](#) of this document.

Pursuant to Forest Planning and Practices Regulation section 64(2), “subsection (1) does not apply to an agreement holder where timber harvesting is designed to be consistent with the structural characteristics and the temporal and spatial distribution of an opening that would result from a natural disturbance, and the holder ensures, to the extent practicable, that the structural characteristics of the cutblock after timber harvesting has been completed resemble an opening that would result from a natural disturbance” (Forest Planning and Practices Regulation, 2014).

The Englemann Spruce Sub-alpine Fir and Interior Cedar Hemlock Retention Strategies are intended to meet the requirement of Forest Planning and Practices Regulation section 64(2) while providing the licence holder with a rule set that is easy to implement, is verifiable and measureable.

Englemann Spruce Sub-alpine Fir Retention Strategy:

Historically, Englemann Spruce Sub-alpine fir forest existed as contiguous tracts of old seral stage forests, which were subjected to infrequent stand replacing fires at mean return intervals of 200 to 350 years. The natural disturbance types of the Englemann Spruce Sub-alpine fir forest results in a range of small to medium-sized (up to 250 ha) similarly aged forest patches on the landscape (Biodiversity, 1995). The licence holder will use a Group Retention Strategy when cutblock design is intended to resemble an opening that would result from a natural disturbance within Englemann Spruce Sub-alpine fir Ecosystem Classification Zone.

When planning and implementing a Group Retention Strategy to mimic natural disturbance the licence holder will undertake to comply with the following:

As applied within the Englemann Spruce Sub-alpine Fir:

Section 64(1) does not apply if groups of trees 0.25 ha, or greater, are reserved from harvest such that the total area of reserve that relates to the cutblock is a minimum of 13% of the cutblock area (Stuart-Smith, Hendry, 1998). Where applicable, reserves will be placed to maximize wind firmness and maintain buffers around areas of high natural biological diversity (deciduous clumps, wetlands and riparian zones) while mimicking natural disturbance.

Within landscape units, patch size, seral distribution and connectivity analysis will be utilized to determine the appropriate distribution of patch sizes (harvest units and leave areas); the recommendations of the Forest Practices Biodiversity Guidebook will be used as a guide and objectives of the Kootenay Boundary Higher Level Plan Order will be followed. Where recommendations or objectives cannot be met a qualified registered professional may propose an alternate strategy provided the strategy is documented and the strategy maintains or improves benefits for old growth conservation or it can be shown that objectives 2, 3, 5, 8 or 9 of

the Kootenay Boundary Higher Level Plan Order would be better met (Kootenay Boundary Higher Level Plan Order, 2002).

Group Retention Englemann Spruce Sub-alpine Fir

The Englemann Spruce Sub-alpine Fir Wet Cold1 and Wet Cold4 are classified in the Biodiversity Guidebook as Natural Disturbance Types 1 and 2, subject to infrequent stand replacing fires at mean return intervals of 200 to 350 years. The objective in these disturbance types is to maintain a range of small to medium-sized (up to 250 ha) similarly aged forest patches on the landscape. Where the forest patch size distribution applies to both harvest unit and the leave areas between harvest units (Biodiversity, 1995). A study of lake sediment (paleoecology) found an average fire return period of 270 years (range 150-300yrs) within Natural Disturbance Types 1 and 2 (Daniels, Gedalof, Pisaric, 2011). A retrospective study of several fires in the East Kootenay Englemann Spruce Sub-alpine found a post-fire residual coverage of 13%, in which, the pattern of residual stems was in patches rather than single tree (range 0.6 to 24.9ha), (Stuart-Smith, Hendry, 1998).

The Englemann Spruce Sub-alpine Fir Group Retention Strategy removes the spatial constraints to residual tree retention in favor of utilizing landscape level patch size analysis in combination with target percent area retention. The use of patch size analysis and a target percent retention allows the prescribing forester to more closely approximate the pattern of natural disturbance within the Englemann Spruce Sub-alpine Fir, while maintaining sufficient areas of closed canopy to support a range of canopy dependent species.

The retention of larger residual patches will result in leave trees with greater resilience to wind, where rare forest types, such as, deciduous broadleaf can be maintained over the rotation. The use of 13% as a target for retention reflects the findings of Stuart-Smith, A.K., and R. Hendry post-fire study. As better data is available this target may be amended to reflect conditions found in the West Kootenay Englemann Spruce Sub-alpine Fir subzones.

Best management practices within the Englemann Spruce Sub-alpine Fir will be to maintain a range of patch sizes, and a mix of coniferous and deciduous species. Deciduous residuals have been found to be disproportionately beneficial to a number of bird species (Stuart-Smith, 2002). Placement of residual patches will be used to enhance biotic values, such as, movement corridors and riparian areas. Where patches of advanced regeneration occur as a result of historic patch disturbance, these should also be maintained on site, both for their silvicultural benefit, and as a useful niche habitat for song birds (Stuart-Smith, 2002).

Interior Cedar Hemlock Variable Retention Strategy:

The Variable Retention Strategy is designed to preserve an increased structural complexity relative to clearcuts (Bunnell et al., 2003), to mimic natural disturbance patterns, and to provide long term niche habitats for organisms that require standing timber for some portion of their life cycle. The licence holder will use a Variable Retention Strategy when cutblock design is intended to resemble an opening that would result from a natural disturbance within Interior Cedar Hemlock Biogeoclimatic Ecosystem Classification Zones.

When planning and implementing a Variable Retention Strategy to mimic natural disturbance the licence holder will undertake to comply with the following:

As applied within the Interior Cedar Hemlock:

Section 64(1) does not apply if no point within the net area to be reforested is:

- a) more than two tree lengths from the cutblock boundary or edge of a group of trees greater than or equal to 0.25 ha in size, or
- b) more than one and a half tree lengths from a group of trees greater than three trees (10m-spacing) or less than 0.25ha in size, or
- c) sufficient dominant or co-dominant wind firm trees are maintained such that the average spacing between individual leave trees is one tree length.

Individual and Group Retention Interior Cedar Hemlock

Interior Cedar Hemlock individual and group retention strategy is intended to be implemented under a Variable Retention System where the emphasis of the retention is on retaining structural elements of the original stand in order to maintain long-term ecological diversity (Harkema, Scott, 2002) and mimic natural disturbance. The goal of using a Variable Retention System is to maintain an increased structural complexity relative to clearcuts (Bunnell et al., 2003), to mimic natural disturbance patterns and to retain forest influence while providing long term niche habitats for organisms that require standing timber for some portion of their life cycle.

The leave trees within and adjacent to the cutblock create forest influence upon climate, soil, water, runoff, stream flow, floods, erosion and soil productivity, where the forest influence is considered to extend the distance of one tree length from the base of a retained tree (Kittredge, 1948). The distribution of forest influence within a variable retention system can vary depending on the location of leave trees, and the type of retention used: single-tree, group or combination of the two. The maintenance of sufficient leave trees such that the average spacing is one to two tree length between individual and clustered residual dominant and co-dominant stems, will result in a distribution over the entire cutblock, which influences over 50% of the cutblock area. This level of retention is consistent with the findings of a study of post fire residual densities in the Interior Cedar Hemlock (Stuart-Smith, A.K., 1998).

The Interior Cedar Hemlock individual and group retention strategy differs from Forest Planning and Practices Regulation Sec. 64(4), in that individual trees are maintained across the cutblock area, in combination with patches less than 0.25 ha. The advantage of maintaining individual trees combined with groups is that it more closely resembles the natural pattern of fire surviving trees found in the Interior Cedar Hemlock zone (Stuart-Smith, Hendry, 1998).

The individual and group retention strategy gains in ease of implementation by allowing for a varying number of leave trees based on tree heights rather than a prescribed spacing, resulting in the retention of an irregular pattern of superior candidate individual trees in combination with groups of less superior trees. This enables the prescribing professional the freedom to work with the forest structure and species present, as oppose to trying to impose a prescribed spacing which may be unattainable due to a lack of superior candidate trees. When present,

retention will be focused on the highest value leave trees, such as, Douglas-fir, Western Larch, Western Red Cedar, Yellow Pine and broadleaf deciduous (Wildlife Tree Committee of British Columbia – Assessor’s Course Workbook, 2008). The leave trees can be individually dispersed, in groups or a combination of the two.

Appendix D Stocking Standards

Selkirk Resource District South Columbia default stocking standards. Ministry of Forests, Lands, Natural Resource Operations & Rural Development. April 2018.

Fire Management / Wildland Urban Interface stocking standards for Selkirk Resource District South Columbia. November 2018.

Chief Forester: Reference Guide for FDP stocking standards. Ministry of Forests, Lands, Natural Resource Operations & Rural Development. February 2014.

https://www.for.gov.bc.ca/hfp/silviculture/stocking_stds.htm


Kootenay Lake Default Stocking Standards. Ministry of Forests Lands and Natural Resource Operations. December 4, 2007.

Forest Stewardship Plan #26 Wildfire Interface Stocking Standards

| Administration Information | | Biogeoclimatic Classification | | Regeneration Guide | | | | | | Free Growing Guide | | | | | |
|----------------------------|--|-------------------------------|-------------|-----------------------------|---|------------------|----------|------------------|-----------------------------------|--------------------|---------|--------------------------|-------------------|-----------------------------|-------------------|
| | | | | Species | | Target | MIN (pa) | MIN (p) | Regeneration delay (max years) | Assessment | | | Height (m) | Minimum inter-tree distance | % Tree Over Brush |
| Regime # | Name | Zone-Subzone-Variant | Site series | Preferred (p) | Acceptable (a) | (well-spaced/ha) | | Earliest (years) | | Latest (years) | Species | | | | |
| 1032199 | Community Wildfire Protection Plans Interface Standard | ICH dw | 01a | Fd, Lw, Py | Pw, Bg, Pl, Bl, Cw, Hw, Sx, Act, At, Ep | 1200 | 700 | 600 | 7 | 12 | 20 | Pl,Pw,Lw Fd Others | 2.0 1.4 1.0 | 2.0 | 150 |
| 1032200 | Community Wildfire Protection Plans Interface Standard | ICH dw | 01b | Fd, Lw, Py, Cw, Act, At, Ep | Pw, Sx, Pl, Bg, Bl, Hw | 1200 | 700 | 600 | 7 | 12 | 20 | Pl,Pw,Lw Fd Others | 2.0 1.4 1.0 | 2.0 | 150 |
| 132201 | Community Wildfire Protection Plans Interface Standard | ICH mw2 | 04 | Fd, Lw | Sx, Pl, Cw, Bl, Pw, Hw, Act, At, Ep | 1200 | 700 | 600 | 7 | 12 | 20 | Pl,Pw,Lw Fd Others | 2.0 1.4 1.0 | 2.0 | 150 |

Appendix E Public Review and Comment Package

The general public was made aware the Forest Stewardship Plan was available for review and comment through eight notices placed in local newspapers and through one thousand and ninety one referral notices that were mailed out to potentially affected stakeholders. In addition, public meetings were held in Boswell, Glade and Riondell, and a presentation was made to the Regional District Central Kootenay during their October meeting. News reporters from the Nelson Star, GOAT fm and Nelson Coop Radio all posted articles and interviews detailing the review and comment of the Forest Stewardship Plan.



Referral Notice - Kalesnikoff Lumber Co. Ltd. 2016-2021 Forest Stewardship Plan for Forest Licences A20194 - Arrow TSA and A30172 - Kootenay Lake TSA.

Please be advised that Kalesnikoff Lumber Co. Ltd. is advertising a Forest Stewardship Plan (FSP) to cover the entire area of Arrow and Kootenay Lake Timber Supply Areas, while excluding all actively managed area-based tenures including Woodlots, Community Forests and Tree Farm Licences.

The Forest Stewardship Plan (FSP) is a landscape level plan, which is focused on establishing objectives, strategies, and results for conserving and protecting timber and non-timber resource values within Crown lands slated for future forest management activities. The FSP is the primary referral process for notifying the public, First Nations, and government agencies as to the location of Forest Development Units (FDUs) and the strategies and results that will apply to the respective FDUs.

The objective of this notice is to provide resource users with an opportunity to identify areas of concern within FDUs to ensure that concerns are addressed prior to development of an area of Crown land allocated for the company's forest development activities.

Comments specific to the FDUs will be recorded and kept on record to ensure that comments are considered at the development stage. The FSP is available for public review at Kalesnikoff's office in Thrums (2090 Highway 3A) during regular business hours 8 am to 4 pm Monday through Friday. Alternatively, the FSP can be viewed on the company website www.kalesnikoff.com with a corresponding email for the public to provide written comments on the plan.

For concerns to be reflected in the final submission of the FSP, Kalesnikoff encourages all potentially affected stakeholders to submit their comments by email to tylerh@kalesnikoff.com or in writing, attention of the undersigned by October 15, 2015.

*Take Care Of The
Land, And The
Land Will Take
Care Of You*

Tyler Hodgkinson
Kalesnikoff Lumber Co. Ltd.
Box 3000
Thrums, BC
V1N 3L8

The 80 day public review and comment period resulted in 153 responses from the public and stakeholders, whereby, comments were received in writing, e-mail, over the phone or in person. The following summary table provides an overview of comments received:

| Comment Description | Number of Times Concern Made | Addressed by the Following |
|--|-------------------------------------|--|
| Concerned about water quality and quantity | 110 | Sections 6.1.1.4, 6.1.1.6, 6.1.2.3, 6.1.2.4 and 10.0 |
| Not in my back yard | 84 | Section 4.3 and 10.0 |
| Wildlife habitat | 81 | Section 6.1.1.1, 6.1.1.2, 6.1.1.3, 6.1.1.5, 6.1.1.8, 6.1.2.2, 6.1.2.3, 6.1.2.5, 6.1.2.6, 6.2.1.2, 6.2.1.3, 6.2.1.4 and 6.2.1.5 |
| Fisheries | 79 | Section 6.1.2.3 and 6.1.2.6 |
| Logging traffic safety | 77 | Section 4.3 and 10.0. Site level planning. |
| Hiking and recreation | 76 | 6.2.2.1 |
| Increased access to public | 75 | Section 4.3 and 10.0 |
| Consultation request when potentially affected | 53 | Section 4.3 and 10.0 |
| Current development plans | 12 | Section 4.3 and 10.0 |
| What is a Forest Stewardship Plan? | 11 | Verbal discussions |
| No concerns | 9 | N/A |
| Forest Development Units | 6 | Section 5.1, appendix A and B |
| First Nation demanding money for consultation | 4 | Section 6.1.2.8 |
| View scape and visual quality | 2 | Section 6.1.1.9, 6.1.2.7, 6.2.1.1 and 10.0 |
| Wants more logging in specific areas | 2 | Section 4.3 and 10.0 |
| Avalanche concerns | 1 | Site level planning and Environmental Management Plan |
| Invasive species | 1 | Section 7.1 |

Note: the summary table is biased due to a petition letter received from the Glade Community to which the respondents are opposed to development in their community watershed.