



McLeod Lake Mackenzie Community Forest

Community Forest Agreement K2M

Forest Stewardship Plan #3
2021-2026

July 13th 2021

McLeod lake Mackenzie Community Forest Development Units
Mackenzie Natural Resource District

McLeod Lake Mackenzie Community Forest
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1.0 INTRODUCTION

This Forest Stewardship Plan (FSP) was prepared for the McLeod Lake Mackenzie Community Forest Limited Partnership (MLMCF), a partnership between the McLeod Lake Indian Band and the District of Mackenzie which holds Community Forest Agreement K2M. The McLeod Lake Mackenzie Community Forest is located within the Mackenzie Natural Resource District, and is comprised of six geographically distinct operating areas, which have been named after existing landscape features. From the southernmost to the northernmost operating areas, these are the Parsnip, Highway 39 Corridor, Gagnon, Morfee, Dastaiga, and the Cut Thumb (See overview map in Appendix 1). The gross area of the community forest is approximately 26,250 hectares (ha).

The FSP is the primary referral process for notifying the public, First Nations, and government agencies to the location of Forest Development Units (FDUs) and operating areas, as well as the results and strategies for management that apply to these areas. It is the only legislative planning approval mechanism for forest harvesting and related activities under the *Forest and Range Practices Act* (FRPA) regime.

Results and strategies are used to describe management intent. The FSP states measurable, enforceable results and strategies that must be consistent with the objectives set by government for a variety of values including fish, water, wildlife, cultural heritage resources, and biodiversity.

2.0 INTERPRETATION

2.1 Definitions and Abbreviations

The following definitions and abbreviations apply to this FSP:

Agreement Area is the area under the community forest license K2M; the McLeod Lake Mackenzie Community Forest. In this FSP, the terms Community Forest and Agreement Area are interchangeable.

Agreement Holder is the McLeod Lake Mackenzie Community Forest Limited Partnership (the licensee).

Biodiversity Emphasis Option (BEO) has the same meaning as in the Ministerial Order for the Non-Spatial Landscape Biodiversity Objectives in the Mackenzie Forest District effective April 8th, 2009 and amended September 30th, 2010.

CFLB means Crown Forested Land Base, and is defined as the area of productive forested Crown land in a defined area.

Community Forest means the McLeod Lake Mackenzie Community Forest, and refers to the area under the K2M agreement.

Cultural Heritage Resource (CHR): refers solely to those resources that are the focus of traditional use by an aboriginal people that are of continuing importance to that people and not regulated under the *Heritage Conservation Act*.

CWPP means Community Wildfire Protection Plan

FDU means forest development unit.

Field Staff means a person involved in work including but not limited to timber reconnaissance, cutblock layout, riparian assessments, ecotyping assessments, timber cruising, post-harvest assessments, and silviculture surveys. Field Staff typically undertake work on foot.

FRPA means the *Forest and Range Practice Act*.

FPC means the *Forest Practices Code Act* of British Columbia.

FPPR means the *Forest Planning and Practices Regulation*.

FSP means Forest Stewardship Plan.

Fuel Management means the planned manipulation and/or reduction of living or dead forest fuels with the intent of reducing fire hazard.

Fuel Management Specialist – an individual whose education, training and background qualify them to assess fuel hazard as it relates to fire risk and develop treatment prescriptions and plans for hazard mitigation.

GAR means *Government Actions Regulation*.

LRMP means *Land and Resource Management Plan*.

MLMCF means McLeod Lake Mackenzie Community Forest Limited Partnership.

Old Forest has the same meaning as in the Ministerial Order for the Non-spatial Landscape Biodiversity Objectives in the Mackenzie Forest District effective April 8th, 2009 and amended September 30th, 2010.

Old Interior Forest has the same meaning as in the Ministerial Order for the Non-spatial Landscape Biodiversity Objectives in the Mackenzie Forest District effective April 8th, 2009 and amended September 30th, 2010.

Qualified Person(s) is an individual registered and in good standing with their respective, recognized B.C. Association, bound by standards of professional practice. Examples of qualified persons are Registered Archaeologists (RA), Registered Professional Foresters (RPF) and/or Registered Forest Technologists (RFT), Registered Professional Biologists (RPBio), and Registered Professional Agrologists (P. Ag.).

Site Plan (SP) - for any proposed cutblock or road the FSP holder must prepare a site plan detailing where the activity will occur, how the activity will comply with the FSP, and how the results and strategies in the FSP apply to the site.

Wildland Urban Interface (WUI) or Urban Interface is the forested area adjacent to structures and other values.

Unless otherwise expressly indicated, or indicated by context, terms used in this FSP have the definition given to them, as of the date of submission, in FRPA and the *Forest Act* and regulations under them.

2.2 Changes to Legislation and Cancelled Objectives

If legislation referred to in this FSP is renamed or a provision of legislation referred to is renumbered, the reference in this FSP is to be construed as a reference to the provision as renamed or renumbered, as the case may be.

If an established objective for a result or strategy included in this FSP is cancelled, the result or strategy pertaining to that objective is no longer applicable effective on the date of cancellation of the objective.

2.3 Application

This Forest Stewardship Plan is prepared as per required under section 3 of FRPA. It is applicable to the Community Forest Licence K2M, which is located in the vicinity of the community of Mackenzie and in the Mackenzie Natural Resource District.

This FSP does not apply to cutting permits or road permits issued under previous FSP's of the Community Forest. Proposed blocks and roads currently under permit at the time that this FSP is approved will continue under the plans/licences in which they were approved.

2.4 Agreement Holder

The agreement holder of this licence is the McLeod Lake Mackenzie Community Forest Limited Partnership (MLMCFLP) (the "licensee").

The aforementioned licensee is responsible for carrying out the strategies and achieving the results outlined within this FSP.

3.0 DATE OF IMPLEMENTATION AND TERM

3.1 Implementation and Term

The implementation date of this plan is to be the date of approval, _____ 2021.

This FSP will be in effect for 5 years beginning on the date of approval.

This FSP may be terminated prior to the term end date should the McLeod Lake Mackenzie Community Forest Limited Partnership elect to replace it with another approved FSP. This FSP may be extended so long as it is compliant with FRPA and/or its regulations.

4.0 FOREST DEVELOPMENT UNITS

4.1 Forest Development Units in Effect on the Date of Approval

The area covered in this FSP is broken into 4 FDUs, each with a different management focus.

Table 1. Existing Forest Development Units (FDUs) for the McLeod Lake Mackenzie Community Forest.

FDU	MANAGEMENT EMPHASIS	APPLICABLE OPERATING AREAS	APPLICABLE LRMP RESOURCE MANAGEMENT ZONE ¹ (RMZ)
1	Timber and non-timber forest resource development and management.	Parsnip, Gagnon, Morfee, Dastaiga, Cut Thumb	RMZ 37, 38, 40, 43
2	Wildland urban interface management; fuel hazard reduction and abatement	Morfee (Mackenzie District Proper and Gantahaz)	RMZ 40, 43
3	Watershed protection for water quality and biodiversity maintenance	Morfee (watershed areas that drain into Morfee Lake)	RMZ 43
4	Compliance with the Sensitive Area Plan for Mugaha Marsh (January 2002).	Morfee (solely the Mugaha Marsh Sensitive Area)	RMZ 38, 43

¹Refers to the Mackenzie Land and Resource Management Plan (November 2000) and the Resource Management Zones described therein.

4.2 K2M Area Expansion

There are three additions to the MLMCF area with this FSP; two unallocated woodlot parcels (referred to as W1991 and W1992), and a set of polygons adjacent to Highway 39 from the Mackenzie townsite to Highway 97 collectively referred to as the Highway 39 corridor. These expansions will serve to benefit the community of Mackenzie through a long term streamlined approach to managing wildfire hazards, increased employment opportunities, and more sustainable profitability and profit sharing for the MLMCF. Maps of the operating areas associated with these expansions can be seen in appendix 2.

W1991 (Dastaiga)

W1991 had been set aside as a potential woodlot, but was never developed further. The unit lies along the northern extent of the original MLMCF Dastaiga operating area and straddles the Finlay forest service road, extending east to the shore of the Williston reservoir. Much of the woodlot area has been recently harvested by Canfor and Conifex to address forest health concerns from spruce beetle infestation. This area will be added into the Dastaiga operating area and FDU 1.

W1992 (Parsnip)

Woodlot W1992 was established in 2007 as a potential woodlot, but remained undeveloped. This unit spans between active woodlot W1575 to the north and the MLMCF Parsnip operating area on all other sides. This area will be added to the Parsnip operating area and FDU 1.

Highway 39 Corridor

The Highway 39 corridor captures forested crown land within 300m on either side of Highway 39 center line. The corridor excludes right of way tenures for Highways, Telus, CN, Fortis and BC Hydro, as well as private land, woodlots, IR parcels, recreation reserves, large wetlands, and some permitted road areas. Only polygons large enough to be operationally managed were included. A 600m width for the corridor was selected based on current fire behavior knowledge and fuel management objectives. The composition of the corridor is a mix of undisturbed forests and harvested openings with a range of plantation ages. The primary management focus for the corridor is for long term and proactive mitigation of wildfire hazards, and will be incorporated into FDU 2.

5.0 EXISTING LEGISLATION AND RELATED PLANS

In creating this FSP, the following plans and legislation were reviewed and considered: the McLeod Lake Mackenzie Community Forest Management Plan #2, the Mackenzie Land and Resource Management Plan (LRMP), the *Forest and Range Practices Act* (FRPA), the *Land Act* (LA), the *Drinking Water Protection Act* (DWPA), the *Government Actions Regulation* (GAR), the *Forest Planning and Practices Regulation* (FPPR), grandfathered sections of the *Forest Practices Code Act of British Columbia* (FPC), the *Heritage Conservation Act*, the Sensitive Area Plan for Mugaha Marsh (SAPMM), Ministerial Order for Designated Mountain Caribou Area, and other pertinent legislation that governs land use in the location of the community forest. It is anticipated that new legislation or orders may be introduced during the term of this FSP, or that existing legislation will change or be replaced. These will be reviewed and if changes affecting how the MLMCF operates on the landscape are caused, the FSP will be amended to reflect them.

Although not officially designated a higher level plan, the Mackenzie LRMP is considered a valuable planning tool created in part by knowledgeable local individuals. The recommendations contained within it will be considered during community forest planning activities.

6.0 RESULTS AND STRATEGIES FOR OBJECTIVES

6.1 Sensitive Area Plan for Mugaha Marsh

Legal Reference(s)

Source	Source Summary
<ul style="list-style-type: none"> FPC Section 5 	Allows for the establishment of sensitive areas
<ul style="list-style-type: none"> FPPR Section 9 	Manage for biodiversity on a landscape level by mimicking natural disturbance
<ul style="list-style-type: none"> Mugaha Marsh Order 	Establishes management objectives within Mugaha Marsh

Application

The Sensitive Area Plan for Mugaha Marsh pertains solely to the boundaries of FDU 4 shown on the FSP map in Appendix 2. These boundaries purposely coincide with FDU 4 under this FSP and therefore the strategy is applicable only to FDU 4.

Results or Strategies

With regards to the Mugaha Marsh Sensitive Area (entirely contained within FDU 4), the holder of this FSP will conduct planning and forest operations consistent with the objectives set out in the Sensitive Area Plan as it was brought into effect on January 1st, 2002.

6.2 Agricultural Development Areas and Settlement Reserve Areas

Legal Reference(s)

Objective Number in this FSP: 1

Source	Source Summary
<ul style="list-style-type: none"> Order Establishing Land Use Objectives under Section 93.4 of the Land Act – for the purposes of FRPA, November 21, 2006 	Allows minister to establish FRPA objectives by order for the use and management of crown land

Application

This applies to anywhere in the agreement area overlapping with polygons identified as ADA and SRA, these areas are identified on the FSP maps.

Results or Strategies

The Agreement Holder will comply with the “Order Establishing Land Use Objectives Under Section 93.4 of the Land Act for the purposes of the Forest and Range Practices Act” dated November 21, 2006.

6.3 Soils

Legal Reference(s)

Objective Number in this FSP: 2

Source	Source Summary
<ul style="list-style-type: none"> FPPR Section 5 	Conserve the productivity and the hydrologic function of soils.
<ul style="list-style-type: none"> FPPR Section 12.1 (1) 	FSP holder is exempt from specifying results or strategies for FPPR s 5, providing compliance of FPPR s 35 and s 36.
<ul style="list-style-type: none"> FPPR Section 35 	Soil disturbance limits
<ul style="list-style-type: none"> FPPR Section 36 	Permanent access structure limits

Application

The objectives for soils and corresponding strategies apply to all of the FDU’s within the community forest.

Results or Strategies

The holder of this FSP will undertake to comply with Sections 35 and 36 of the FPPR as those sections were on the date this FSP was submitted for approval. As such, and as per Section 12.1 (1) of the FPPR, the holder of this FSP is exempt from specifying results or strategies in relation to the objectives set out in Section 5.0 of the FPPR.

6.4 Wildlife

Legal Reference(s)

Objective Number in this FSP: 3

Source	Source Summary
• FPPR Section 7	Conserve sufficient wildlife habitat in terms of amount of area, distribution of areas and attributes of those areas
• Notice A	Indicators of the Amount, Distribution and Attributes of Wildlife Habitat Required for the Survival of Species at Risk in the Mackenzie Forest District (December 2004)
• Notice B	Indicators of the Amount, Distribution and Attributes of Wildlife Habitat Required for the Winter Survival of Ungulates in the Mackenzie Timber Supply Area (December 2004)
• GAR Order	Ungulate Winter Range #U7-009, Northern Caribou (November 24, 2005).
• GAR Order	Ungulate Winter Range # U7-007, Northern Caribou (June 14th, 2007).
• Ministerial Order M217	Establishes restrictions on development within Mountain Caribou Designated area No1. Unless otherwise ordered, this order will be rescinded June 20 th 2021.

Application

The objectives for wildlife apply to all FDUs within the agreement area.

Results or Strategies

The agreement holder will comply with all applicable legislation and orders relating to wildlife management.

The MLMCF overlaps with Mountain Caribou Designated area No1 in the Cut Thumb and Morfee operating areas, and will comply with the order. The MLMCF is committed to responsible forest stewardship which includes managing for habitat values. Best management strategies for wildlife will be considered for all proposed developments, these practices will be described in the site plan written for each harvest area.

6.5 Water, Fish, Wildlife and Biodiversity within Riparian Areas, including Retention of Trees

Legal Reference(s)

Objective Number in this FSP: 4

Source	Source Summary
• FPPR Section 8	Conserve water quality and aquatic habitat
• FPPR Section 12 (3)	Requirement for strategy to retain trees in riparian management zones
• FPPR Section 12.1 (2)	FSP holder is exempt from specifying results or strategies for FPPR s 8, providing compliance with FPPR s 47-51, 52 (2) and 53.

Results or Strategies

The Agreement Holder will undertake the requirements of Sections 47 to 51, 52(2) and 53 of the FPPR in relation to the objectives for water, fish, wildlife and biodiversity. For the purposes of Section 12(3) of the FPPR, the strategy for the retention of trees in riparian management zones (RMZ) will be the percentage of RMZ total area specified in Table 2. Table 3 summarizes the application of targets established in table 2.

There will be no harvesting in retention areas. Retention within RMZs will be consistent with Table 2 unless one or more of the following conditions exist:

- a) A tree requires action such as stubbing, topping, pruning, or felling because it presents a safety hazard,
- b) A stream crossing is being established,
- c) A tree or trees must be removed to address a forest health agent that would spread if the tree or trees were not removed, and
- d) Specific results or strategies for the retention of trees exist for the Mugaha Marsh Sensitive Area, ungulate winter ranges, wildlife habitat areas, wildlife habitat features or those specified in general wildlife measures which supersede those referred to in this section.

Application

The objectives and corresponding strategies for water, fish, wildlife and biodiversity within riparian areas, including retention areas, apply to all of the FDU’s within the agreement area.

Definitions:

Large S6 stream: A non-fish bearing stream with an average channel width $\geq 1.5m$

Small S6 stream: A non-fish bearing stream with an average channel width $< 1.5m$

Table 2. Riparian classes and their corresponding minimum RMZ area retention requirements.

RIPARIAN CLASS	RETENTION OF RIPARIAN MANAGEMENT ZONE ¹ (RMZ)
S1-A, S1-B, S2, S3 Streams W1, W5 Wetlands	$\geq 25\%$ of RMZ
S4, S5	$\geq 20\%$ of RMZ
Large S6	$\geq 25\%$ of the RMZ
Small S6	0% of the RMZ
W3 Wetlands, L3 Lakes	$\geq 20\%$ of RMZ
L1-A	$\geq 25\%$ of RMZ
L1-B	$\geq 25\%$ of RMZ
Total retention on riparian features will be the Riparian Reserve Zone (RRZ) combined with a percentage of the RMZ, as indicated in the table above.	
¹ So long as the RRZ is retained along the entire reach and a rationale is written the SP, the RMZ retention target may be averaged over the length of reach within the development area.	

Table 3. Summary of riparian classes and retention. Final column is RRZ + RMZ retention commitment from table 2.

Riparian Class	Riparian Management Area ¹ (RMA), meters	Riparian Reserve Zone ¹ (RRZ), meters	Riparian Management Zone ¹ (RMZ), meters	MLMCF Retention Target, meters from riparian edge (RRZ + %RMZ)
Streams				
S1-A	100	0	100	25
S1-B	70	50	20	55
S2	50	30	20	35
S3	40	20	20	25
S4	30	0	30	7.5
S5	30	0	30	7.5
Large S6	20	0	20	5
Small S6	20	0	20	5m Machine Free Zone (MFZ)
Non-classifiable Drainage (NCD)	0	0	0	5m Machine Free Zone (MFZ)
Wetlands				
W1	50	10	40	20
W3	30	0	30	6
W5	50	10	40	20
Lakes				
L1-A	0	0	0	0
L1-B	10	10	0	12.5
L3	30	0	30	6
¹ Management areas for RMA, RRZ, and RMZ come from division 3 of the FPPR				

6.6 Wildlife and Biodiversity – Landscape Level

6.6.1 Cutblock Design

Legal Reference(s)

Objective Number in this FSP: 5

Source	Source Summary
<ul style="list-style-type: none"> FPPR Section 9 	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

Application

The following results/strategies, with respect to biodiversity at the landscape level, apply to all FDUs in the agreement area.

Results or Strategies

Pursuant to FPPR Section 9, The agreement holder undertakes to comply with the legislation and Ministerial Orders as laid out in the following sections.

6.6.2 Maximum Cutblock Size and Adjacency

Legal Reference(s)

Objective Number in this FSP: 6

Source	Source Summary
<ul style="list-style-type: none"> • FPPR Section 64 	Defines the maximum allowable net area to be reforested for a cutblock (60 ha) and allowable exemptions.
<ul style="list-style-type: none"> • FPPR Section 65 	Defines cutblock adjacency requirements

Application

The following results/strategies, with respect to biodiversity at the landscape level, applies to all FDUs in the agreement area.

Results or Strategies

The Agreement holder will comply with sections 64 and 65 of the FPPR as those sections were at the time of approval of this plan.

Assessment of compliance with FPPR sec. 64, 65 will be completed before harvesting activities commence. The assessment will compare the proposed harvest area with the objectives in sections 64 and 65 of the FPPR, with the results and rationale documented in the site plan.

In addition, the following strategies apply:

- a) Deviations from the results and strategies referred to in this section are permitted by FPPR sec. 65 (4) in order to address a forest health issue, a forest fuel management concern, or for fire hazard abatement including, but not limited to salvage harvesting of beetle infected or otherwise damaged timber;
- b) The results and strategies referred to in this section only apply when they are not in conflict with the results or strategies identified elsewhere in this FSP; and
- c) Specific results or strategies identified to address established objectives for ungulate winter range, wildlife habitat areas, wildlife habitat features, or those specified in general wildlife measures supersede those referred to in this section.

6.6.3 Non-Spatial Landscape Biodiversity Objectives (Old and Old Interior Forest Retention)

Objective Number in this FSP: 7

Legal Reference(s)

Source	Source Summary
<ul style="list-style-type: none"> Non-spatial Landscape Biodiversity Objectives in the Mackenzie Forest District (April 9th 2008) 	Establishes objectives for retention of old growth forests on the landscape

Application

The objectives and corresponding results/strategies for Non-Spatial Landscape Biodiversity Objectives apply to the Morfee and Dastaiga operating areas. All other MLMCF operating areas overlap with landscape units where the Spatial landscape Biodiversity Objectives Order takes precedence.

Results or Strategies

The Agreement Holder will maintain old forest per the retention requirements of the Non-spatial Landscape Biodiversity Objective Order on the Crown Forest Land Base (CFLB) in its Dastaiga and Morfee operating areas as summarized in Tables 4-5.

Table 4. Biogeoclimatic groups and their respective variants present within the K2M area that are used for Old Forest and Old Interior Forest calculation objectives.

BIOGEOCLIMATIC GROUP	BIOGEOCLIMATIC VARIANTS WITHIN BIOGEOCLIMATIC GROUP
1	ESSFmcp, ESSFmvp2, ESSFmvp3, ESSFmvp4, ESSFwcp3, SWBmks
2	ESSFmc, ESSFmv2, ESSFmv3, ESSmv4, SWBmk
3	ESSFwc3, ESSFwk2
4	SBSmk1, SBSmk2, SBSwk1
5	SBSvk, SBSwk2

This table is adapted from Table 1 in the Ministerial Order for Non-spatial Landscape Biodiversity Objectives in the Mackenzie Forest District.

Table 5. Old forest retention requirements by landscape units present within the K2M area for the Mackenzie Forest District.

Landscape Unit Group	K2M Operating Area	Biogeoclimatic Group	Minimum % of CFLB Retained as Old Forest
Blackwater	Dastaiga	4,5	11
Parsnip	Cut Thumb	All	N/A
Misinchinka, Tudyah B	Gagnon	All	N/A
Misinchinka, Tudyah B	Parsnip	All	N/A
Misinchinka, Tudyah B	Morfee	All	N/A
Morfee	Morfee	3	19
Morfee	Morfee	4	11
Morfee	Morfee	5	9

6.6.4 Spatial Old Growth Objectives

Objective Number in this FSP: 8

Legal Reference

Source	Source Summary
<ul style="list-style-type: none"> Land Act Section 93. 4: Ministerial Order for Spatial Land Use Objectives for Part of the Mackenzie Forest District Area (September 23, 2010) 	Establishes spatially defined Old Growth Management Areas (OGMAs) within several Landscape Units in the Mackenzie Forest District defines the parameters of allowable OGMA entry.

Application

At the time of writing this FSP the Order for Spatial Land Use Objectives apply to the Parsnip, Cut Thumb and Gagnon operating areas as the landscape units they overlap with (Parship, Misinchinka and Tudyah B) have established OGMAs. Spatially defined OGMAs can be found within the Cut Thumb and Gagnon operating areas.

Results or Strategies

All established OGMAs within MLMCF operating areas are identified on FSP maps. The agreement holder will comply with the order. If additional OGMAs are established in the future the MLMCF will comply with the order and update their maps.

6.7 Visual Quality Objectives

Legal References

Objective Number in this FSP: 9

Source	Source Summary
<ul style="list-style-type: none"> FPPR Section 9.2 	Explains what steps are to be taken to manage for visual quality
<ul style="list-style-type: none"> FRPA Section 181 	Grandparents in objectives from the Forest Practices Code

Application

The results and strategies for visual quality objectives apply to all FDUs in the agreement area.

Results and Strategies

The agreement holder’s forest practice activities within known scenic areas will be designed and executed so that the altered forest landscape for the scenic area is consistent with section 9.2 (2) of the FPPR, unless:

- a. forest health factors in the agreement area need to be addressed. In such cases, the cutblock and road systems will be designed, to the extent practicable, to mimic naturally occurring landscape characteristics and exhibit elements of good visual design as per the Integrated Visual Design Procedures and Standards 2008;
- b. it is not practicable due to a fuel management prescription; or
- c. no other option exists for road access to the THLB without significantly increasing environmental impact.

If management of visual quality is altered for the above reasons, a rationale for why will be included in the relevant site plan.

All known scenic areas and their associated visual quality classes pertaining to this FSP are shown on the FSP Content Maps.

6.8 Cultural Heritage Resources

Legal Reference

Objective Number in this FSP: 10

Source	Source Summary
<ul style="list-style-type: none"> ▪ FPPR Section 10 	Establishes the objective to manage for cultural heritage resources

Application:

Management of Cultural Heritage Values applies to all FDUs in the agreement area.

Strategy

The holder of this FSP adopts the following strategies:

- A. The Agreement Holder will refer all planned road and cutblock development to affected First Nations when the FSP is up for approval, the cutting authority is up for renewal, or whenever a request is made to share such information.
- B. Prior to the harvest of a cut block or construction of a road, a CHR assessment will be conducted within areas where:
 - a) an existing archaeological overview assessment has identified CHRs, or
 - b) Where site specific information regarding cultural heritage resources is brought forward or made available by an aboriginal people or government or qualified field staff.
- C. If a previously unidentified CHR is encountered during forest operations; operations will cease to the extent necessary to ensure its protection until a CHR assessment can be carried out by a qualified person(s).
- D. Forest operations activities will be consistent with the recommendations following from the CHR assessment.

6.9 Recreation Objectives

Legal Reference

Objective Number in this FSP: 11

Source	Source Summary
<ul style="list-style-type: none"> ▪ FRPA Section 181 	Grandparents in objectives from the Forest Practices Code

Application

Management for resources strategies apply to all FDUs in the agreement area.

Strategies

1. There are currently no recreation sites or trails with established objectives in or near to the MLMCF.
 - a) If objectives are established, harvesting or road construction within 100m of the recreation feature will be conducted in compliance with such objectives.
 - b) In the absence of an established objective for a recreation site, interpretative forest site or trail, the Agreement Holder will partner with an appropriate recreation officer from the BC Ministry of Forests, Lands and Natural Resource Operations to develop site plans or prescriptions which will ensure site specific harvesting objectives are met and recreation values are maintained.
 - c) Any damage to a recreation feature with established objectives, that results from forest operations by the holder of this FSP, will be repaired within six months or mitigated to the satisfaction of the Ministry of Forests, Lands and Natural Resource Operations representative.

2. Recreation values and infrastructure without provincially established objectives do exist within the agreement area. The MLMCF will commit to:
 - a) Actively participate with recreation groups to maintain or enhance recreation opportunities within the agreement area.
 - b) Communication with the public in regards to recreation will be recorded and archived
 - c) All known recreation sites, interpretative forest sites or trails are presented on the FSP Content Maps.

7.0 STOCKING STANDARDS

Legal Reference

Source	Source Summary
FRPA Section 29	Requirement to establish a free growing stand in harvested areas
FPPR Section 16, 29, 44 and 45	16 – requires the presence of stocking standards in an FSP 29 – amendments requiring approval 44, 45 – Defining free growing obligations and related activities or considerations

Standards

Where the Agreement Holder is required under the Act and regulations to establish a free growing stand as a result of timber harvesting conducted under this FSP, and harvesting activity is conducted using “clear-cut” and “clear-cut with reserves” systems, the Agreement Holder will do so in accordance with Table A3-1 in Appendix 3.

Where the Agreement Holder undertakes activities to reduce fuel loading and fire risk in FDU 2, and where those activities result in a reforestation obligation, the agreement holder will apply the stocking standards in Table A3-2 of Appendix 3.

Where the Agreement Holder undertakes harvesting under un-even-aged management regimes such as “single tree selection systems” or harvesting for salvage/sanitation purposes in areas which are not traditionally managed for timber objectives (such as riparian reserve zones) the Agreement Holder will apply the stocking standards in Table A3-3 of Appendix 3.

The Agreement Holder will also adopt the following strategies with regards to stocking standards:

1. Regeneration delay of 4 years may be extended to 7 years where natural ingress is used to achieve regeneration standards for minimum preferred and acceptable stocking, and minimum preferred only stocking. A rationale supporting a regeneration delay beyond the default 4 years will be provided in the site plan for the affected SU.
2. If forest health issues have been identified or are anticipated, planting density will be increased to a minimum of 1400sph, a mix of ecologically suitable species will be planted, and advanced regeneration will be retained if appropriate.
3. Maximum density may exceed 10,000 stems per hectare within a site plan standard unit (SU) if, as a result of forest health or stand damage considerations, it is determined that a higher density is appropriate to maintain stocking levels beyond 20 years. A rationale supporting an increase in maximum density will be provided in the site plan for the affected SU.
4. The minimum inter-tree distance (MITD) may be reduced to 1.0 metre in certain SUs where certain site factors limit available plantable microsities. In that circumstance, a rationale for the reduced MITD in the particular SU will be provided in the site plan. Site limiting factors that may warrant a reduction of the MITD include, but not be limited to:
 - i. Hygric or wetter soil moisture regimes,

- ii. Soils containing greater than 25% coarse fragment content (particles >2mm in diameter),
 - iii. Slopes greater than 25%, where seedling establishment is dependent on microsites protected from snow press,
 - iv. Sites with a minimum of 40 dispersed wildlife trees per hectare,
 - v. Riparian areas with a high residual component,
 - vi. Sites where a stump avoidance strategy is employed to manage root rot,
 - vii. Cluster planting (when used as a best management practice to accommodate management strategies for such things as grizzly bear and wildland-urban interface zones).
5. Douglas Fir (Fd) can be planted and included as a preferred or acceptable tree outside the prescribed stocking standards if it supported by a rationale in the SP for the affected SU. Expanded inclusion of Douglas Fir on appropriate sites is anticipated to help stands within the community forest adapt with the effects of climate change.

8.0 INVASIVE PLANT MEASURES

Invasive plants are non-native plant species that have the potential to cause detriment to humans, animals or ecosystems, resulting in negative economic, social, and environmental impacts. In many cases, these plant species are able to establish quickly and easily, particularly on disturbed sites (Invasive Species Council of British Columbia 2013).

Legal Reference

Source	Source Summary
• FRPA Section 47	Requirement to have measures for prevention of introduction and spread of invasive plants
• FPPR Section 17	Requirement to have measures for prevention of introduction and spread of invasive plants
• Invasive Plants Regulation	Defines which plants are considered invasive

Measures

The Agreement Holder will take the following actions with regards to the introduction or spread of invasive plants as specified by the Invasive Plants Regulation (B.C. Reg. 18/2004 effective January 31, 2004):

Assessment

- a. Contact the Northwest Invasive Plant Council (NWIPC) annually (by April 30th) to discuss the invasive plant species most likely to occur within the agreement area.
- b. Ensure that all Field Staff working within the agreement area are aware of their responsibility to identify and report invasive plants. This will be achieved through training and field identification materials.

Reporting

- a. Create and maintain an internal invasive plant tracking system to allow documentation of the presence of these species within the agreement area. This tracking system will be used to coordinate assessment, reporting, and treatment of invasive plants within the agreement area.
- b. Document occurrences of invasive plant species within 14 days of discovery.
- c. Report observed infestations of invasive plants to the NWIPC weed hotline and to the Mackenzie office at the Ministry of Forests, Lands and Natural Resource Operations within 14 days of discovery.
- d. Carry out an annual review of where invasive plants are known to be present (by November 30th) and determine if treatment is required. These assessments will be documented in the agreement holder's tracking system. Assessments will occur under snow-free conditions to provide optimal conditions for the identification of invasive plant species.
- e. A report to the NWIPC will be submitted by Dec. 31st annually, the report will describe activities undertaken regarding invasive plants, as well as updates to locations and identification of invasive plants in the agreement area over the past year.

Prevention of Introduction

- a. Minimize soil disturbance in riparian areas by adhering to Section 6.3 of this Forest Stewardship Plan. Such action is intended to maintain riparian areas in a state that is less suitable for the establishment of invasive plants.
- b. Where safe and practicable, retain natural regeneration and understory vegetation at all stages of forest operations to prevent the creation of openings suitable for the establishment of invasive plants.
- c. Where exposed soil is created through road construction, seed the exposed soil within 2 years of completion of forest operations. Road running surface will be included in the area requiring seeding unless further use of the road is planned within 12 months of seeding operations. This action is intended to reduce the area of ground suitable for colonization by invasive plants.
- d. Use seed which meets or exceeds Canada Common No.1 Forage Mix specifications stated in the Canada Seeds Act to ensure that invasive species are not introduced through seeding activities.
- e. Request a Certificate of Seed Analysis for all seed mixes purchased to ensure these mixes are free of invasive plant material.
- f. Track seed stock used and the timing of seeding activities in order to monitor the success of seeding programs.

Prevention of Spread

- a) The MLMCF will consult with the NWIPC prior to treating invasive plants to ensure the proposed methodology will be effective at removing the invasive plant.
- b) Manual treatments for invasive plants will not be pursued where an assessment indicates that such activities are likely to accelerate the spread of these species. An alternative treatment will be prescribed in these areas.
- c) Seed treated areas within 1 year of harvest completion to reduce the likelihood of future colonisation by invasive plants.
- d) Keep accurate records of the removal of invasive plants

- e) Monitor and report on treated areas on an annual basis (by November 30th) for at least 3 years following treatment to ensure that measures have been successful. If invasive plants are present at the end of monitoring, the area will be re-treated and the process will begin again. Monitoring activities will occur under snow-free conditions to provide optimal conditions for the identification of invasive plant species.
- f) Dispose of invasive plant matter in a manner that reduces the likelihood of spread. Such methods may involve, but are not limited to, burning invasive plant material on site, or placing the material in sealed bags and incinerating it off site.
- g) Take precautions to prevent the spread of invasive plants if such species are identified on a worksite. Such precautions may include, but are not limited to, changing the season of operation, cleaning equipment (with or without water) following completion of work, and to avoid setting up landings or storage areas where invasive plants are present.

Application

The above invasive plant strategies apply to all FDUs in the agreement area.

9.0 Natural Range Barriers

Legal Reference

Source	Source Summary
FPPR section 18	Establishes obligation to manage for natural range barriers

Measures

There are currently no range tenures within or adjacent to the Agreement Area. Should a range tenure be established within or adjacent to the Agreement area, the FSP will be amended within 2 years with results and strategies identified to meet objectives set by government.

10.0 Signatures of Personnel Required to Prepare the Plan

McLeod Lake Mackenzie Community Forest

PO Box 579, Mackenzie, B.C. V0J 2C0

Authorized Licensee Signatory: _____

Director

Authorized Licensee Signatory: _____

Director

Preparing Forester: _____

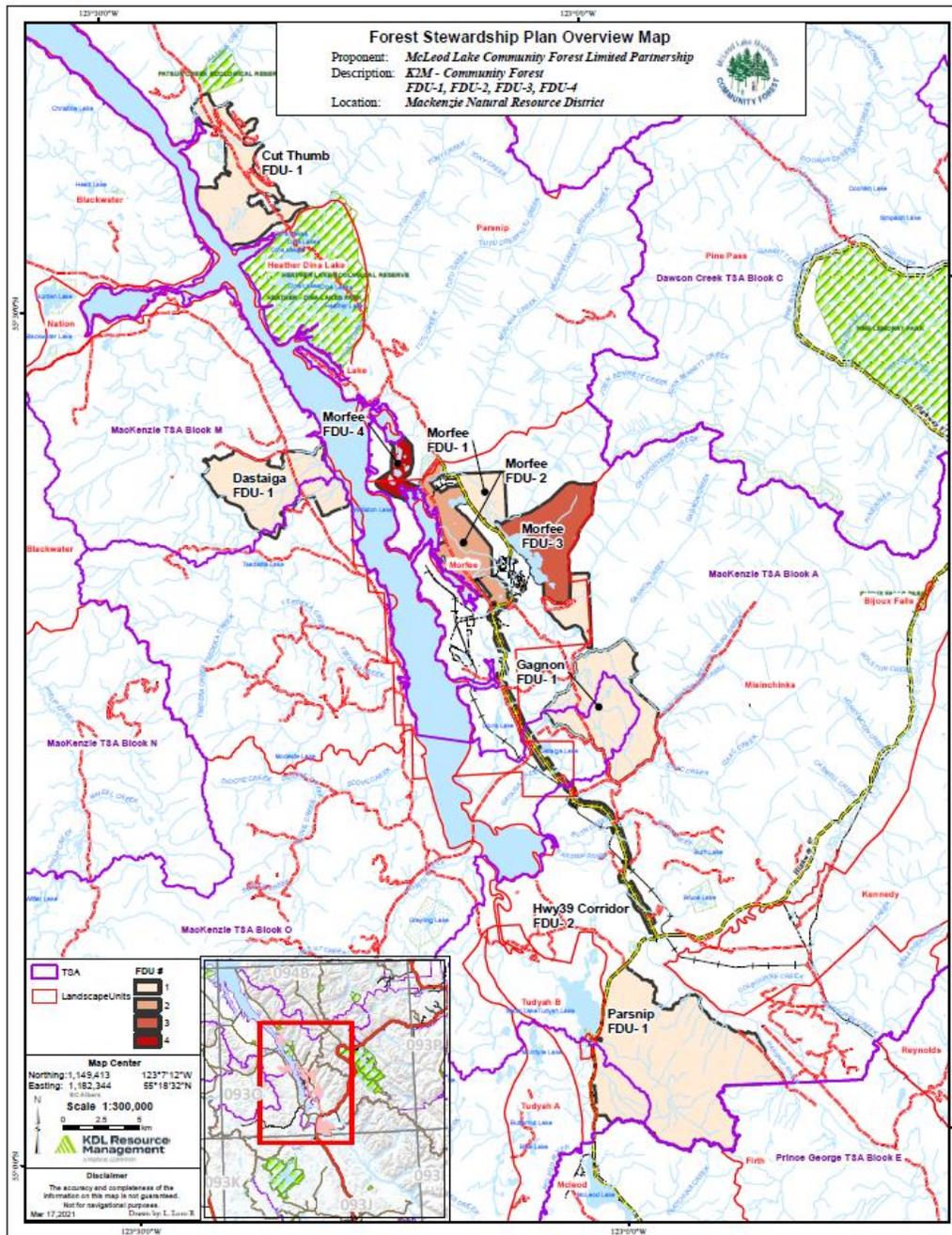
SEAL

FSP #1 was prepared by Patience Rakochy, RPF, FSP #2 was prepared by David Kim, RPF. I have reviewed and revised the FSP and supporting documentation and certify that this FSP conforms with the requirements of Section 5 of the Forest and Range Practices Act as of the date that the FSP was formally submitted for review.

Appendix 1 MLMCF Overview Map

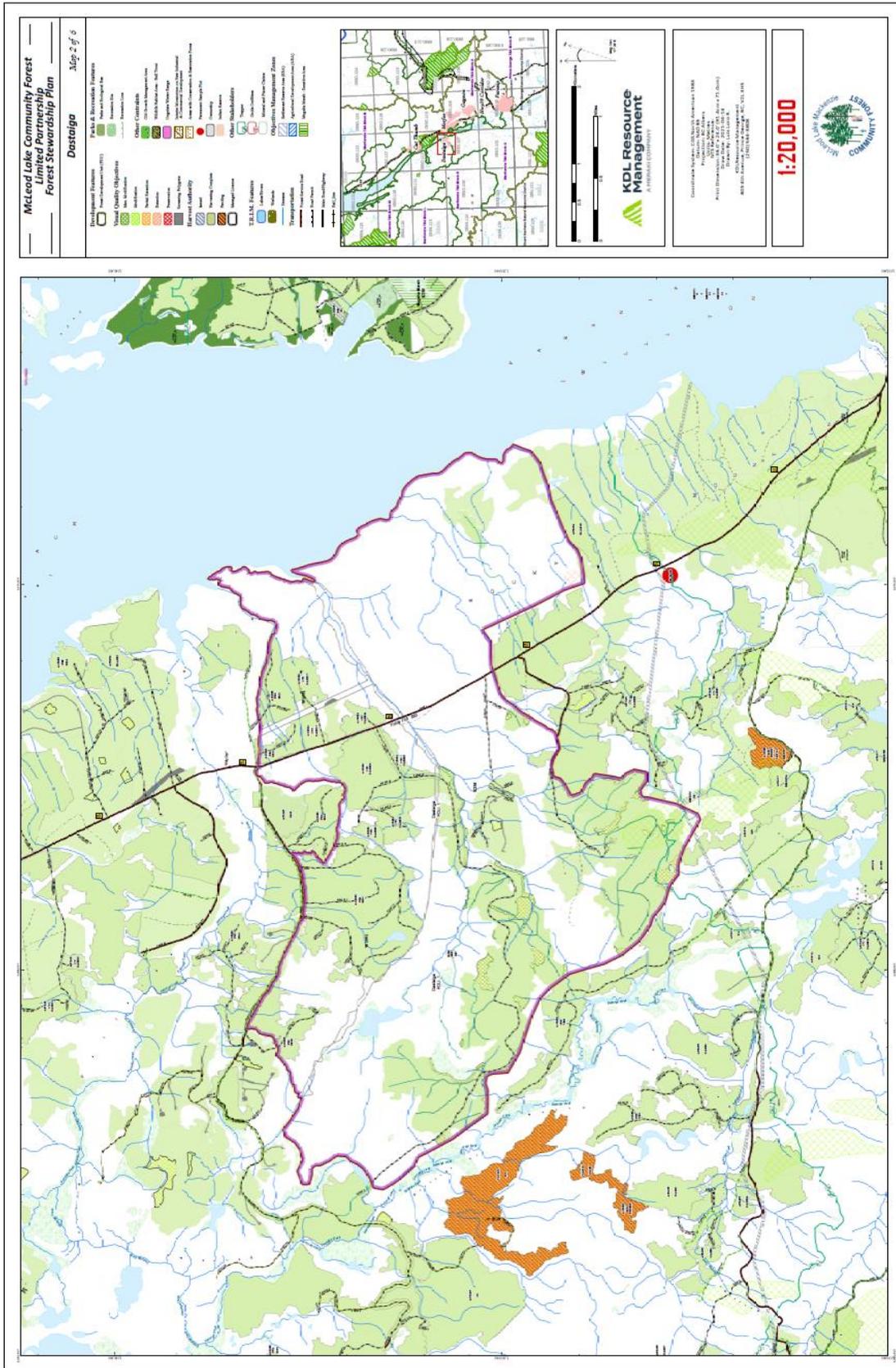
Overview Map of the Forest Development Units in the McLeod Lake Mackenzie Community Forest (Scale Ma-1:300,000). PDF versions of these maps can be made available from the MLMCF.

These map images have been included for rapid reference, and therefore are not high detail. PDF versions of these maps with better resolution are available.

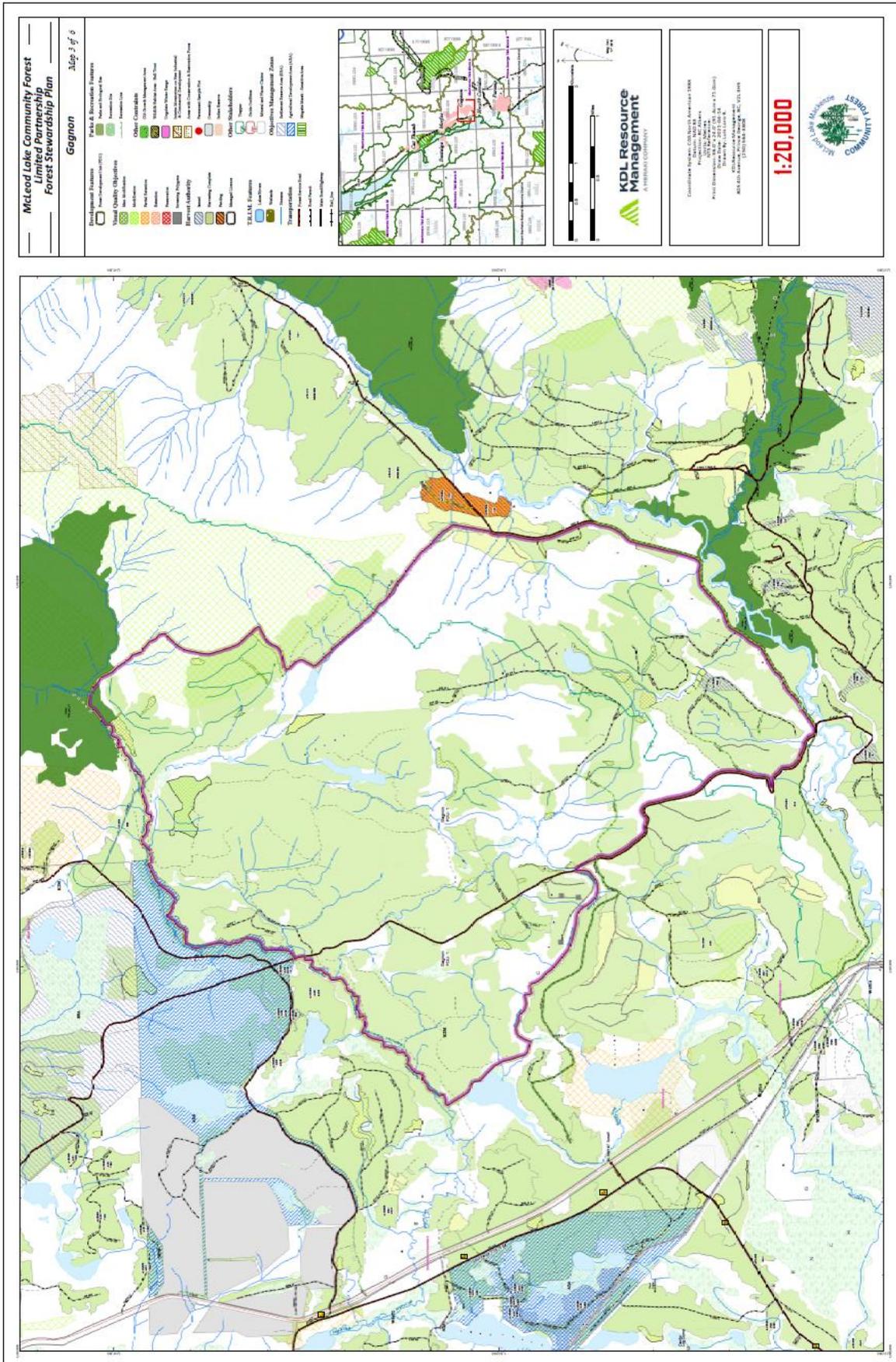


Map 1. MLMCF operating area overview.

Map 3. Dastaiga Operating Area



Map 4. Gagnon Operating Area



Appendix 3 Stocking Standards

General Stocking Standards

Below are the General Stocking Standards that apply to FDU 1, FDU 3, and FDU 4. These stocking standards can also apply to sections of FDU 2 if it is determined they will not create conditions undermining the objective of reducing wildfire risk and intensity.

Table A3-1: General Stocking Standards

SSID	BEC			Species ¹		Minimum Height at Free Growing				Stocking well spaced				Regen Date	FG Date	Density
	Zone	Subzone / variant	Site Series	Preferred	Acceptable	Douglas-Fir	Pine	All Other Conifer Species	All Deciduous Species	Target stocking p & a (sph)	Min stocking p & a (sph)	Min stocking p only (sph)	Min inter tree distance (m)	years from harvest start date	years from harvest start date	Max stocking (sph)
1043549	ESSF	wc3	01	Bl, Se, Sx	Pli		1.6	0.6		1,200	700	700	1.2	4	20	10,000
1043550	ESSF	wc3	02	Bl, Se, Sx	Pli		1.2	0.6		1,000	500	500	1.2	7	20	10,000
1043551	ESSF	wc3	03	Bl, Se, Sx	Pli		1.5	0.6		400	200	200	1.2	7	20	10,000
1043552	ESSF	wk2	01	Bl, Se, Sx			1.6	0.8		1,200	700	700	1.6	4	20	10,000
1043553	ESSF	wk2	02	Bl, Se, Sx			1.6	0.8		1,200	700	700	1.2	4	20	10,000
1043554	ESSF	wk2	03	Bl, Se, Sx	Pli		1.6	0.8		1,200	700	700	1.5	4	20	10,000
1043555	ESSF	wk2	04	Bl, Se, Sx			1.6	0.8		1,200	700	600	1.5	4	20	10,000
1043556	ESSF	wk2	05	Bl, Se, Sx			1.6	0.8		1,200	700	600	1.5	4	20	10,000
1043557	ESSF	wk2	06	Bl, Se, Sx			1.2	0.6		1,000	500	400	1.5	4	20	10,000
	ESSF	wcp		parkland												
1043558	SBS	mk1	01	Fdi, Pli, Sx	At, Bl, Ep	1.4	2.0	1.0	2.0	1,200	700	600	1.6	7	20	10,000
1043559	SBS	mk1	02	Pli	Sx		2.0	1.0		1,200	700	600	1.6	7	20	10,000
1043560	SBS	mk1	03	Pli	Ep, Sx	1.0	2.0	1.0	2.0	1,200	700	600	1.6	7	20	10,000
1043561	SBS	mk1	04	Fdi, Pli	At, Bl, Ep, Sx	1.4	2.0	1.0	2.0	1,200	700	600	1.6	7	20	10,000
1043562	SBS	mk1	05	Fdi, Pli, Sx	At, Bl, Ep	1.4	2.0	1.0	2.0	1,200	700	600	1.6	7	20	10,000
1043563	SBS	mk1	06	Pli	Sb, Sx		2.0	1.0		1,200	700	600	1.6	7	20	10,000
1043564	SBS	mk1	07	Fdi, Pli, Sx	At, Bl, Ep	1.4	2.0	1.0	2.0	1,200	700	600	1.6	4	20	10,000
1043565	SBS	mk1	08	Pli, Sx	At, Bl, Ep		2.0	1.0	2.0	1,200	700	600	1.6	4	20	10,000
1043566	SBS	mk1	09	Pli, Sx	Act, At, Bl		1.4	0.8	2.0	1,000	500	400	1.6	4	20	10,000
1043567	SBS	mk1	10	Sx	Sb		1.4	0.8		400	200	200	1.6	4	20	10,000
1049914	SBS	mk2	01	Fdi, Pli, Sx	At, Bl, Ep	1.0	2.0	1.0	2.0	1,200	700	600	1.6	7	20	10,000
1049915	SBS	mk2	02	Pli	Sx		2.0	1.0		1,200	700	600	1.6	7	20	10,000
1049916	SBS	mk2	03	Fdi, Pli, Sx	At, Bl, Ep	1.0	2.0	1.0	2.0	1,200	700	600	1.6	7	20	10,000
1049917	SBS	mk2	04	Pli	Bl, Sx		2.0	1.0		1,200	700	600	1.6	7	20	10,000

1049918	SBS	mk2	05	Pli, Sx	At, Bl, Ep		2.0	1.0	2.0	1,200	700	600	1.6	4	20	10,000
1049919	SBS	mk2	06	Sx	Act, At, Bl, Pli			0.8	2.0	1,000	500	400	1.6	4	20	10,000
1043574	SBS	vk	01	Sx	At, Bl, Ep, Pli	1.4	2.0	1.0	2.0	1,200	700	600	1.6	4	20	10,000
1043575	SBS	vk	02	Pli	Bl, Sx		2.0	1.0		1,200	700	600	1.6	7	20	10,000
1043576	SBS	vk	03	Fdi, Sx	Bl, Ep, Pli	1.4	2.0	1.0	2.0	1,200	700	600	1.6	7	20	10,000
1043577	SBS	vk	04	Sx	At, Bl, Ep, Pli	1.4	2.0	1.0	2.0	1,200	700	600	1.6	4	20	10,000
1043578	SBS	vk	05	Sx	At, Bl, Ep, Pli		2.0	1.0	2.0	1,200	700	600	1.6	4	20	10,000
1043579	SBS	vk	06	Sx	Act, At, Bl, Ep, Pli		1.4	0.8	2.0	1,000	500	400	1.6	4	20	10,000
1043580	SBS	vk	07	Sx	Bl, Pli		2.0	1.0		1,200	700	600	1.6	4	20	10,000
1043581	SBS	vk	08	Pli, Sx	Act, Bl, Sb		1.4	0.8	2.0	1,000	200	200	1.6	4	20	10,000
1043582	SBS	vk	09	Pli	Bl, Sx		1.4	0.8		1,000	500	400	1.6	7	20	10,000
1043583	SBS	vk	10	Bl, Sx				0.8		1,000	500	500	1.6	4	20	10,000
	SBS	vk	11	non-forested												
1043584	SBS	wk1	01	Fdi, Pli, Sx	At, Bl, Ep	1.4	2.0	1.0	2.0	1,200	700	600	1.6	4	20	10,000
1043585	SBS	wk1	02	Fdi, Pli	Bl, Ep, Sx	0.8	1.4	0.8	2.0	1,000	500	400	1.6	7	20	10,000
1043586	SBS	wk1	03	Fdi, Pli	Bl, Ep, Sx	1.4	2.0	1.0	2.0	1,200	700	600	1.6	7	20	10,000
1043587	SBS	wk1	04	Fdi, Pli, Sx	Bl, Ep	1.4	2.0	1.0	2.0	1,200	700	600	1.6	7	20	10,000
1043588	SBS	wk1	05	Fdi, Pli, Sx	At, Bl, Ep	1.4	2.0	1.0	2.0	1,200	700	600	1.6	7	20	10,000
1043589	SBS	wk1	06	Pli, Sx	At, Bl, Ep, Sb		2.0	1.0	2.0	1,200	700	600	1.6	4	20	10,000
1043590	SBS	wk1	07	Pli, Sx	At, Bl, Ep		2.0	1.0	2.0	1,200	700	600	1.6	4	20	10,000
1043591	SBS	wk1	08	Sx	At, Bl, Ep, Pli		2.0	1.0	2.0	1,200	700	600	1.6	4	20	10,000
1043592	SBS	wk1	09	Sx	Act, At, Bl, Pli		1.4	0.8	2.0	1,000	500	400	1.6	4	20	10,000
1043593	SBS	wk1	10	Sx	Act, Bl, Pli		1.4	0.8	2.0	1000	500	400	1.6	4	20	10,000
1043594	SBS	wk1	11	Pli	Bl, Sb, Sx		1.4	0.8		400	200	200	1.6	4	20	10,000
1043595	SBS	wk1	12	Pli	Sb, Sx		2.0	1.0		400	700	600	1.6	7	20	10,000
1043596	SBS	wk2	01	Pli, Sx	At, Bl, Ep	1.0	2.0	1.0	2.0	1,200	700	600	1.6	4	20	10,000
1043597	SBS	wk2	02	Pli	Bl, Sx		1.4	0.8		1,000	500	400	1.6	7	20	10,000
1043598	SBS	wk2	03	Pli, Sx	At, Bl, Ep	1.0	2.0	1.0	2.0	1,200	700	600	1.6	7	20	10,000
1043599	SBS	wk2	04	Pli	Sb, Sx		2.0	1.0		1,200	700	600	1.6	7	20	10,000
1043600	SBS	wk2	05	Bl, Sx	At, Ep, Pli		2.0	1.0	2.0	1,200	700	600	1.6	4	20	10,000
1043601	SBS	wk2	06	Bl, Sx	Act, At, Pli		1.4	0.8	2.0	1,000	500	400	1.6	4	20	10,000

¹ Deciduous species are acceptable up to 25% of target stocking providing preferred conifer contribution meets or exceeds the minimum stocking standard.

Wildfire Management Stocking Standards

The stocking standards below are applicable to FDU 2. The intent of these stocking standards is to promote the growth of a forest with low intensity wildfire behavior.

Table A3-2: Stocking Standards - FDU 2

SSID	BEC			Species ^{1, 2}		Minimu m Height at FG	stocking (well-spaced/ha)				Regen Date	Late FG Date	Density ³	
	Zone	Subzone Variant	Site Series	Preferred	Acceptable		Coniferous and Deciduous Species	TSSpa	Min stocking p & a (sph)	Min stocking p only (sph)			Min. inter-tree Distance (m)	Years from harvest
1049914	SBS	mk2	01	At, Act, Ep, Fd, Sx	Pl, Bl	Decid: 2.0m, Pl: 2.0m, Other Conifer: 1.0m	1,200	700	600	2.0	7	20	No Limit	800
1049915	SBS	mk2	02	At, Act, Ep, Pl	Sx, Bl	Decid: 2.0m, Pl: 2.0m, Other Conifer: 1.0m	1,000	500	400	2.0	7	20	No Limit	800
1049916	SBS	mk2	03	At, Act, Ep, Fd, Sx	Pl, Bl	Decid: 2.0m, Pl: 2.0m, Other Conifer: 1.0m	1,200	700	600	2.0	7	20	No Limit	800
1049917	SBS	mk2	04	At, Act, Ep, Pl	Sx, Bl	Decid: 2.0m, Pl: 2.0m, Other Conifer: 1.0m	1,200	700	600	2.0	7	20	No Limit	800
1049918	SBS	mk2	05	At, Act, Ep, Sx	Pl, Bl	Decid: 2.0m, Pl: 2.0m, Other Conifer: 1.0m	1,200	700	600	2.0	7	20	No Limit	800
1049919	SBS	mk2	06	At, Act, Ep	Sx, Bl	Decid: 2.0m, Pl: 1.4m, Other Conifer: 0.8m	1,000	500	400	2.0	7	20	No Limit	800
1043558	SBS	mk1	01	At, Act, Ep, Fd, Sx	Pl, Bl	Decid: 2.0m, Pl: 2.0m, Fd: 1.4m, Sx,/Bl: 1.0m	1,200	700	600	2.0	7	20	No Limit	800
1043559	SBS	mk1	02	At, Act, Ep, Pl	Sx, Fd, Bl	Decid: 2.0m, Pl: 2.0m, Fd: 1.4m, Sx,/Bl: 1.0m	1,000	500	400	2.0	7	20	No Limit	800
1043560	SBS	mk1	03	At, Act, Ep, Fd, Pl	Sx, Bl	Decid: 2.0m, Pl: 2.0m, Other Conifer: 1.0m	1,000	500	400	2.0	7	20	No Limit	800
1043561	SBS	mk1	04	At, Act, Ep, Fd, Pl	Sx, Bl	Decid: 2.0m, Pl: 2.0m, Fd: 1.4m, Sx,/Bl: 1.0m	1,000	500	400	2.0	7	20	No Limit	800
1043562	SBS	mk1	05	At, Act, Ep, Fd, Sx	Pl, Bl	Decid: 2.0m, Pl: 2.0m, Fd: 1.4m, Sx,/Bl: 1.0m	1,200	700	600	2.0	7	20	No Limit	800
1043563	SBS	mk1	06	At, Act, Ep, Pl	Sx, Bl, Sb	Decid: 2.0m, Pl: 2.0m, Other Conifer: 1.0m	1,200	700	600	2.0	7	20	No Limit	800

1043564	SBS	mk1	07	At, Act, Ep, Fd, Sx	Pl, Bl	Decid: 2.0m, Pl: 2.0m, Fd: 1.4m, Sx,/Bl: 1.0m	1,200	700	600	2.0	7	20	No Limit	800
1043565	SBS	mk1	08	At, Act, Ep, Sx	Pl, Bl	Decid: 2.0m, Pl: 2.0m, Other Conifer: 1.0m	1,200	700	600	2.0	7	20	No Limit	800
1043566	SBS	mk1	09	At, Act, Ep, Sx	Pl, Bl	Decid: 2.0m, Pl: 1.4m, Other Conifer: 0.8m	1,000	500	400	2.0	7	20	No Limit	800
1043567	SBS	mk1	10	At, Act, Ep, Sx	Pl, Bl, Sb	Decid: 2.0m, Pl: 1.4m, Other Conifer: 0.8m	400	200	200	2.0	7	20	No Limit	800
1043596	SBS	wk2	01	At, Act, Ep, Fd, Sx	Pl, Bl	Decid: 2.0m, Pl: 2.0m, Other Conifer: 1.0m	1,200	700	600	2.0	7	20	No Limit	800
1043597	SBS	wk2	02	At, Act, Ep, Pl	Sx, Bl, Fd	Decid: 2.0m, Pl: 1.4m, Other Conifer: 0.8m	1,000	500	400	2.0	7	20	No Limit	800
1043598	SBS	wk2	03	At, Act, Ep, Fd	Sx, Bl	Decid: 2.0m, Pl: 2.0m, Other Conifer: 1.0m	1,200	700	600	2.0	7	20	No Limit	800
1043599	SBS	wk2	04	At, Act, Ep, Pl	Sx, Bl, Sb	Decid: 2.0m, Pl: 2.0m, Other Conifer: 1.0m	1,200	700	600	2.0	7	20	No Limit	800
1043600	SBS	wk2	05	At, Act, Ep, Sx	Pl, Bl, Fd	Decid: 2.0m, Pl: 2.0m, Other Conifer: 1.0m	1,200	700	600	2.0	7	20	No Limit	800
1043601	SBS	wk2	06	At, Act, Ep, Sx, Bl	Pl	Decid: 2.0m, Pl: 1.4m, Other Conifer: 0.8m	1,000	500	400	2.0	7	20	No Limit	800
<p>¹ While it is not realistic to assume that all deciduous species listed will establish and grow successfully within each site series it is unreasonable to place constraints on the deciduous species should they naturally and successfully propagate, contributing to reduced fire hazard, biodiversity, and habitat.</p> <p>² Because of its resistance to wildfire, Fd will be considered for planting wherever it can be expected to grow to maturity, or wherever it exists on site before harvest or treatment.</p> <p>³ Maximum conifer density will only be applied at time of free growing assessment. This will ensure any brushing treatments are the most effective at reducing stem density as the stand grows.</p> <p>TSS- target stocking standards pa- preferred and acceptable</p>														

All conifers with a height meeting or exceeding the minimum height at free growing count towards conifer maximum stocking. Brushing, spacing or other similar treatments will be conducted in any units where maximum stocking has been exceeded.

Uneven-aged Stocking Standards

The table below is the uneven aged stocking standards that apply to all FDUs.

All other stocking information not shown in this table will come from the general stocking standards or the wildfire management stocking standards.

Table A3-3: Uneven Aged Stocking Standards – All FDU's

Target from even-aged standards (stems/ha) ¹	Layer ²	Stocking (well-spaced/ha) ³			Target from even-aged standards (stems/ha)	Layer ²	Stocking (well-spaced/ha) ³		
		TSSpa	MSSpa	MSSp			TSSpa	MSSpa	MSSp
1,200	1	600	300	250	800	1	300	150	150
	2	800	400	300		2	400	200	200
	3	1,000	500	400		3	600	300	300
	4	1,200	700	600		4	800	400	400
1,000	1	400	200	200	600	1	300	150	150
	2	600	300	250		2	400	200	200
	3	800	400	300		3	500	300	300
	4	1,000	500	400		4	600	400	400
900	1	400	200	200	400	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

¹Maximum regeneration delay is 7 years. For a 7 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 5 years post-harvest and late free growing is at 15 years.

² **Layer 1** (mature layer) = trees ≥12.5cm dbh; **Layer 2** (pole layer) = trees 7.5cm to 12.4cm dbh; **Layer 3** (sapling layer) = trees ≥ 1.3m in height and up to 7.4cm dbh; **Layer 4** (regeneration layer) = trees ≤ 1.3m in height.

³ **TSS**- target stocking standards **MSS**- minimum stocking standards **pa**- preferred and acceptable **p**-preferred

APENDIX 4 INFORMATION SHARING

The MLMCF will make the FSP available on their website (<http://mlmcf.ca/>), and during the FSP renewal process the draft FSP will be advertised over the Mackenzie radio station CHMM, and in the Macktown Buzzette. Copies of the draft FSP and community forest maps will be made available at the Mackenzie district office as well as at the McLeod Lake Mackenzie Indian Band office. FSP information packages will distributed to local First Nations, as well as Trappers and Guide outfitters with overlapping tenure with the MLMCF.