



2021/09/14

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To whom this may concern,

RE: FOREST HARVEST PLAN PU076164a SUBMISSION

On behalf of Northland Forest Products Ltd. and Alberta-Pacific Forest Industries Inc., please find attached the Forest Harvest Plan (FHP) for Planning Unit **076164a**. Northland Forest Products Ltd. and Alberta-Pacific Forest Industries Inc. are submitting this plan for appraisal, for a 5-year FHP approval as well as approval under the 2021 Annual Operating Plan (AOP).

The companies would appreciate a response within 5 days of submission.

We are available for a review of this plan at a mutually agreeable time. If you have questions regarding this plan feel free to contact the undersigned.

ALBERTA-PACIFIC FOREST INDUSTRIES INC.

A handwritten signature in blue ink, appearing to read "Keagan Richardson".

Keagan Richardson, RPF
Woodlands Operations Planner
Alberta Pacific Forest Industries Ltd.
780-213-4204

NORTHLAND FOREST PRODUCTS LTD

A handwritten signature in blue ink, appearing to read "Colin Paranich".

Colin Paranich, RPF
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Northland Forest Products Ltd.
and
Alberta Pacific Forest Industries Inc.

Forest Harvest Plan

Compartment: "East Athabasca River – Lo3-A"

Planning Unit: "076164a"

FMA 9100029 & CTLL030047

Forest Harvest Plan – 076164a(21-26)

Date Submitted: **2021/09/14**

Forest Harvest Plan

PU076164a

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Report

1.0 Introduction

Alberta – Pacific Forest Industries Inc. (Alberta – Pacific) and Northland Forest Products Ltd. (Northland) have prepared a Forest Harvest Plan (FHP) for the harvest of deciduous and coniferous stands within Planning Unit 076164a.

Planning Unit 076164a is comprised of 10 proposed coniferous blocks and 1 proposed deciduous block with a total area of 461 ha, within Forest Management Unit (FMU) L03.

The companies have identified two (2) potential camp locations for logging operations within this Planning Unit. The temporary camps are in blocks NCo7615408234 (55.563787, -112.299302) and NCo7615407304 (55.552182, -112.32687) with areas of 0.5 hectares each and can be viewed in the FHP Overview Map. The campsite will be reclaimed as indicated in Section 11.3.4.4 of the Northeast Alberta Timber Harvesting Planning and Operating Ground Rules (OGRs).

Copies of this Forest Harvest Plan are available on the Alberta – Pacific website, at www.alpac.ca

2.0 General Planning Unit Information /Design Considerations

This FHP has been validated by Registered Forestry Professionals employed by Alberta-Pacific and Northland.

This FHP includes maps and reports that clearly show and document the planned harvest area boundaries, roads and water crossings within the Planning Unit.

This plan is being submitted for appraisal, for a 5-year FHP approval under the 2021-22 Alberta-Pacific and Northland Annual Operating Plan (AOP).

2.1 Operating Ground Rules

Planning Unit 076164a has been designed in accordance with the Northeast Alberta Operating Ground Rules (OGRs), revised 2018. Alberta – Pacific and Northland are requesting certain deviations from the OGRs, due to field verified factors. These requests, along with corresponding information are listed under the section *OGR Deviations*.

3.0 Maps

Individual block maps have been included in the submission package, outlining the information pertinent to these blocks. A Planning Unit overview map and a Spatial Harvest Sequence (SHS) Planning Unit map have been included in the submission package. These maps can be viewed in the *Appendices* of this document.

4.0 Block Information

A *Block Summary Table* has been included in Appendix A outlining the expected volumes of the area.

4.1 Utilization

Alberta – Pacific and Northland adheres to the 15/10 utilization standard for coniferous and deciduous trees, this includes the incidental.

4.2 Field Verification

The proposed blocks were ground verified by a field layout team. The layout team provided planning support to assess timber quality, sensitive and historical sites, operability of the harvest area, and classification of water courses within the Planning Unit boundary. Where applicable, the variance findings of the layout team have been noted in the corresponding section of this report.

4.3 Understory Assessment

For this Planning Unit there was no understory observed during the block and road layout process. If white spruce understory is encountered within deciduous blocks during operations, it will be protected utilizing the avoidance method.

4.4 Structure Retention

Alberta – Pacific will leave an average of 5% merchantable volume as structure retention throughout the FMU and Northland will leave an average of 3%. This retention will be left in the following methods:

- Laid out patches
- Mapped patches (planned with GIS desktop)
- Individual trees
- Small clumps left at the operators' discretion

4.5 Debris Management

Debris management of the Planning Unit will be accomplished in a manner consistent with Section 7.3 of the OGRs.

5.0 Watercourse Protection

Where harvest blocks are in proximity to any potential watercourses, the field layout team conducted field assessments utilizing the methodology and classification standards outlined in Section 6.0 of the OGRs. Any confirmed watercourses have been buffered in accordance with the OGRs Section 6.0, Table 2.

Any deviations from the OGRs in relation to the watercourse buffers are noted in this report; please refer to the *OGR Deviations* section of the report for further information. The list of watercourse crossings can be found in Appendix B – *Watercourse Crossing Summary Table*.

6.0 Road Information

Overview maps have been attached showing roads in accordance with Section 3.4.6. of the OGRs; all spatial data requirements have also been included with this submission.

Roads will be constructed, maintained, and reclaimed in a manner consistent with Section 11.3 of the OGRs.

When new access is necessary, reclamation processes will adhere to Section 11.3.4 of the OGRs. To enable for silviculture activities, all-terrain vehicle (ATV) access may be left throughout the harvest area. The list of roads can be found in Appendix C – *Road Attributes Table*.

7.0 Land Use Information

A search of the Geographic Land Information Management Planning System (GLIMPS) and Digital Integrated Dispositions (DIDs) yielded active dispositions within the FHP harvest area. Any necessary agreements with the disposition holder will be in place prior to the commencement of harvest operations. None of the dispositions within the FHP harvest area will restrict harvest operations in the FHP.

The FHP design incorporates pipeline crossings for temporary class 4 roads. The agreements will be in place prior to the construction of these crossing. Below is a land use table with the various disposition holders in the area.

Land Use Summary Table

Disposition Number	Disposition Holder	Disposition Type
PLA900907	CANADIAN NATURAL RESOURCES LIMITED	PLA
PLA970984	CANADIAN NATURAL RESOURCES LIMITED	PLA
PLA900907	CANADIAN NATURAL RESOURCES LIMITED	PLA
PLA970623	CANADIAN NATURAL RESOURCES LIMITED	PLA
PLA770098	SIMMONS EDECO INC.	PLA
LOC850331	CANADIAN NATURAL RESOURCES LIMITED	LOC
FRD610005	LAC LA BICHE COUNTY	FRD
RRD1421597	ALBERTA TRANSPORTATION	RRD

8.0 Integration with Other Forest Users

8.1 Integration with Other Harvest Operators

This is an integrated plan between the FMA holder and CTL holder; both companies have validated the plan.

8.2 Registered Fur Management Areas (RFMAs)

There are two RFMAs within the FHP who may be impacted by operations. Notification letters were sent to the respective RFMA holders, any requests from the RFMA holder have been considered, and, where possible, the harvest design has been planned to accommodate the request.

Registered Fur Management Areas Table

RFMA ID	Notification Method	Contact Method
2916	Letter	Mail
2386	Letter	Mail

8.3 Wildlife Management Unit(s) (WMU)

Planning Unit 076164a is location within WMU 512. The Guides and Outfitters operating within this unit have been sent notification, via registered mail, on the PHP design, as well as a timeline for the commencement of harvest operations. Any requests from Guides and Outfitters have been considered, and, where possible, the harvest design has been planned to accommodate the request.

8.4 Indigenous Groups

During the General Development Plan (GDP) process, Alberta – Pacific and Northland completes consultation with indigenous groups every year. There have not been any issues identified for the Planning Unit 076164a.

8.5 Other Forest Users

No active recreation groups, or stakeholders have been identified.

8.6 Forest Aesthetics

As outlined in Section 5.5. of the OGRs, Alberta – Pacific and Northland follow the objective to mitigate the impact of timber operations on the visual quality of the forest landscape. This FHP is not adjacent to any park or recreational areas, and no other aesthetics concerns have been noted to date by other forest users. Alberta – Pacific and Northland will strategically locate retention areas adjacent to Class I, II, and III roads, minimizing line of sight where possible.

9.0 Species and Areas of Concern

9.1 Woodland Caribou

Four of the blocks (and associated roads) in this plan are within East Side Athabasca range (Waiu Subunit) for mapped caribou zones. Blocks located within the caribou range will be targeted for harvest operations early in the winter to avoid mid to late winter operations as much as possible. No evidence of woodland caribou was noted during layout operations or field reconnaissance.

9.2 Key Wildlife and Biodiversity Zone (KWBZ)

None of the planned blocks are within the KWBZ.

9.3 Other Species

All known sensitive wildlife sites have been buffered in accordance with Section 7.7.5.2 of the OGRs.

9.4 Sensitive Sites

A review of the block design and landscape of the FHP was completed by professional archaeologists. Any sites identified as being of high or moderate historical significance (historical resource sites), have been removed from the harvest design.

Upon completion of blocks and road layout, a second review of the harvest blocks, and temporary class 4 roads is completed to identify potential conflicts, and to determine if any further changes are required to the Planning Unit.

There were no signs of rare plants, or diseases identified, including signs of terrestrial lichen.

If any sites are identified post submission, Alberta – Pacific and Northland will take the appropriate action to protect these sites.

9.5 Forest Health

During the layout stage and field verification stage, a team evaluated the current state of the forest health in the FHP area and found nothing of significance, as outlined in Section 10.1 of the OGRs.

If any sites are identified post submission, Alberta – Pacific and Northland will take the appropriate action to protect these sites.

10.0 SHS Information / Variance Summary

Variances from the Spatial Harvest Sequence (SHS) within the Planning Unit boundary are shown in Appendix D – *SHS Variance Summary Table*.

11.0 Silviculture Information

No watercourse crossings will be left in for silviculture.

12.0 OGR Deviations

12.1 Road Deviations

The first of the following tables outlines the blocks which are greater than 7 hectares, with potentially more than 5% road disturbance.

Road Percent Deviations Table

Source ID	Opening Number	Block Area (ha)	Harvest Season (Frozen/ Non-Frozen)	Road Percentage	Road Percentage Reason
FC07615418981	4150761898	8.9	Frozen	5.0	Narrow/irregular block
NC07615407864	4150760786	11.8	Frozen	5.8	Narrow/irregular block
NC07615408234	4150760823	49.5	Frozen	5.6	Narrow/irregular block
NC07615415044	4150761504	20.4	Frozen	9.0	Narrow/irregular block
NC07615416844	4150761684	13.8	Frozen	6.9	Access to other blocks
NC07615417454	4150761745	35.3	Frozen	4.9	Narrow/irregular block
NC07615418924	4150761892	10.8	Frozen	4.9	Access to other blocks

13.0 Validation by Registered Forest Practitioner

Plan prepared and submitted on behalf of Alberta-Pacific and Northland.



Keagan Richardson, RPF

ALBERTA-PACIFIC FOREST INDUSTRIES INC.

Colin Paranich, RPF

NORTHLAND FOREST PRODUCTS LTD

Appendix A: Block Summary Table

Deciduous Blocks - Al-Pac						
Source ID	Opening Number	Harvest Season (Frozen/Non-Frozen)	Area (ha)	Deciduous Volume (m ³)	Incidental Conifer Volume (m ³)	Total Volume (m ³)
FC07615408981	4150760898	Frozen	4.9	814	173	988
AlPac Blocks		Total	4.9	814	173	988

Appendix A: Block Summary Table

Coniferous Blocks - NFPL							
Source ID	Opening Number	Harvest Season (Frozen/ Non-Frozen)	Area (ha)	Conifer Volume (m ³)	Aris Code	Incidental Deciduous Volume (m ³)	Total Volume (m ³)
NC07615407304	4150760730	Frozen	265.5	40,759	White Spruce	10,832	51,590
NC07615407864	4150760786	Frozen	11.8	1,063	Black Spruce	241	1,304
NC07615408234	4150760823	Frozen	49.5	4,176	Black Spruce	1,588	5,765
NC07615415044	4150761504	Frozen	20.4	2,074	Black Spruce	434	2,508
NC07615416724	4150761672	Frozen	5.9	535	Black Spruce	146	681
NC07615416844	4150761684	Frozen	13.8	1,046	Black Spruce	686	1,732
NC07615417454	4150761745	Frozen	35.3	1,775	Black Spruce	880	2,655
NC07615418924	4150761892	Frozen	10.8	1,069	Black Spruce	338	1,407
NFPL Blocks		Total	412.9	52,497		15,145	67,642

Coniferous Blocks - Al-Pac							
Source ID	Opening Number	Harvest Season (Frozen/ Non-Frozen)	Area (ha)	Conifer Volume (m ³)	Aris Code	Incidental Deciduous Volume (m ³)	Total Volume (m ³)
FC07615418891	4150761889	Frozen	34.4	2,733	Black Spruce	2,627	5,360
FC07615418981	4150761898	Frozen	8.9	798	Black Spruce	956	1,754
Al-Pac Blocks		Total	43.3	3,531		3,583	7,114

Appendix B: Watercourse Crossing Summary Table

Road ID	Road Crossing Number	Stream Class
RC07615407304	3139	Ephemeral
	0646	Ephemeral
	0658	Ephemeral
	0733	Ephemeral
	0737	Ephemeral
	0649	Ephemeral
	0669	Ephemeral
	1299	Ephemeral
	1864	Ephemeral
RC07615407864	0785	Ephemeral
RC07615408234	0529	Small Permanent
	0689	Beaver Pond
	0696	Ephemeral
	0698	Small Permanent
	0699	Beaver Pond
	0679	Small Permanent
	0509	Intermittent
	0791	Small Permanent
	0792	Small Permanent
	0801	Ephemeral
	0820	Small Permanent
	0821	Ephemeral
	0539	Small Permanent
	0840	Ephemeral
RC07615415044	1695	Ephemeral
	1665	Ephemeral
	1686	Ephemeral
RC07615416844	1664	Ephemeral
	1683	Ephemeral
RC07615417454	1615	Intermittent
	1795	Small Permanent
RC07615418891	1972	Ephemeral
	1973	Ephemeral

Appendix C: Road Attributes Table

Road ID	Road Classification	Haul Season	FCODE	Class	Length, m
RC07615407304	Temp	Frozen	Winter Road	4	12702
	Temp	Frozen	Winter Road	4	
	Temp	Frozen	Winter Road	4	
	Temp	Frozen	Winter Road	4	
	Temp	Frozen	Winter Road	4	
	Temp	Frozen	Winter Road	4	
	Temp	Frozen	Winter Road	4	
	Temp	Frozen	Winter Road	4	
RC07615407864	Temp	Frozen	Winter Road	4	927
RC07615408234	Temp	Frozen	Winter Road	4	3444
	Temp	Frozen	Winter Road	4	
	Temp	Frozen	Winter Road	4	
	Temp	Frozen	Winter Road	4	
	Temp	Frozen	Winter Road	4	
RC07615415044	Temp	Frozen	Winter Road	4	2861
	Temp	Frozen	Winter Road	4	
	Temp	Frozen	Winter Road	4	
RC07615416724	Temp	Frozen	Winter Road	4	21
RC07615416844	Temp	Frozen	Winter Road	4	1505
	Temp	Frozen	Winter Road	4	
RC07615417454	Temp	Frozen	Winter Road	4	2791
	Temp	Frozen	Winter Road	4	
	Temp	Frozen	Winter Road	4	
RC07615418891	Temp	Frozen	Winter Road	4	1775
	Temp	Frozen	Winter Road	4	
RC07615418924	Temp	Frozen	Winter Road	4	768
	Temp	Frozen	Winter Road	4	
RC07615418981	Temp	Frozen	Winter Road	4	437
Total					27,232

Appendix E - FHP Checklist**Forest Harvest Plan (FHP) Checklist**

Planning Unit	076164a	Disposition Number	FMA9100029 & CTLL030047
Company	Northland Forest Products Ltd. Alberta Pacific Forest Industries Inc.	Submission Date	14-Sep-21

APPROVAL ITEM	YES/NO	INITIAL/DATE
*Validated by RFP	Yes	CGP- 20210823
*Deletions and deferrals <20% of SHS area by cover type in the FHP	Yes	CGP- 20210823
*Area does not exceed 100% of SHS by cover type in the FHP	Yes	CGP- 20210823
**Adheres to all Ground Rules (if "NO", see OGR Variance portion of the harvest design report)	Yes	CGP- 20210823
*Compartment assessment not required	Yes	CGP- 20210823
*Plan agreed to in writing by affected forest companies	Yes	CGP- 20210823

*Appraisal of the FHP is required as per 3.4.1 of the OGRs if "No" has been indicated on any of these Approval Items.

** Appraisal of deviations is required if "No" has been indicated on this Approval Item.

Company
(Y,N,N/A)

Administrative Considerations

Copies required as per FMA, regional OGR or agreement with ESRD	<u>Y</u>
FHP consistent with approved higher order plans (DFMP, SHS, GDP)	<u>Y</u>
Required disposition has been issued and approved	<u>Y</u>
FHP complete and legible	<u>Y</u>
- maps	<u>Y</u>
- block tables	<u>Y</u>
- blocks requiring detailed block plans identified	<u>Y</u>
- reforestation program	<u>Y</u>

Ground Rule Deviations (see OGR Variance portion of the harvest design report)

All blocks containing ground rule deviations have been identified	<u>Y</u>
Justification provided for all ground rule deviations	<u>Y</u>

Utilization

SHS Variance reported in FHP	<u>Y</u>
Deviations from utilization standards are identified, explained and justified	<u>Y</u>
Utilization standard matches license document (if not, Company has approval documentation for temporary deviation)	<u>Y</u>
	<u> </u>

Integration with Other Users

Trappers have been identified and contacted	<u>Y</u>
Trapper information and concerns, where applicable, have been integrated into the plan	<u>Y</u>
Forest recreation groups identified and contacted	<u>Y</u>
GTA completed and grazing disposition holders have been contacted (Directive 2011-03)	<u>N/A</u>
Historical resources integrated into the plan	<u>Y</u>
Any issues raised by other users or the public have been documented	<u>Y</u>
Potential land use conflicts have been documented and mitigated (PNT, CNT, road use agreements, etc.)	<u>Y</u>

Access Management

Access management, including control measures have been described and identified (location, timing, signage, etc) (7.7.1.7 & 7.7.5.6)	<u>Y</u>
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Sensitive Sites

Aesthetic/recreation concerns addressed	<u>Y</u>
Water source areas identified and potential impacts mitigated	<u>Y</u>

Road Design

Location and design have been identified	<u>Y</u>
List of channeled watercourse crossings including watercourse classification, map identifier, etc	<u>Y</u>
Crossings not exempt under the <i>Water Act</i> are identified	<u>Y</u>
Any proposed permanent access in Caribou zones has been identified	<u>N/A</u>
Access opened for layout under TFA is incorporated into road design	<u>N/A</u>
Existing access and DLOs integrated into the plan are identified (if "N/A", these must be identified in the AOP)	<u>Y</u>
Removal and reclamation of old crossings is identified (if "N/A", this must be identified in the AOP)	<u>N/A</u>

Wildlife

Wildlife zones within the planning area are identified and addressed	<u>Y</u>
FWMIS search completed and the issues identified have been addressed	<u>Y</u>
Harvest areas with timing restrictions identified	<u>Y</u>
For Woodland Caribou zone, areas of concentrated terrestrial lichen growth have been delineated and DBPs are proposed	<u>N/A</u>
All known sensitive wildlife sites have been addressed (mineral licks, raptor nests, den sites, etc)	<u>Y</u>

Insect, Disease & Fire

Firesmart tactics are identified and described	<u>Y</u>
Known infestations of insect and disease are identified and mitigation is described	<u>Y</u>
Debris disposal methods identified	<u>Y</u>

Silviculture

Pre-harvest strata declaration is included	<u>Y</u>
Watercourse crossings maintained for silviculture purposes are identified (if "N/A", these crossings must be identified in the AOP)	<u>N/A</u>

-FHP's are approved through acceptance and will be considered approved on the date Alberta acknowledges receipt of the work.

-Alberta shall notify the organization by acknowledging receipt within 5 working days of submission.

-The notification date will be documented by Alberta as the start date for FHP approval.

-Alberta shall periodically check the work and supporting documentation to verify its accuracy.

-At any time, approval can be revoked where Alberta learns the FHP is inaccurate or deficient in content

Company Sign Off

RFP #1773

Submitting RFP Validation

Northland Forest Products Ltd.

Company

14-Sep-21

Date

RFP #1946

Submitting RFP Validation

(for integrated plans)

Alberta-Pacific Forest Industries Ltd.

Company

14-Sep-21

Date

AAF Sign Off

Reviewing RFP Validation

Date