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Forest Harvest Plan

PU076164



**ALBERTA
PACIFIC**
FOREST INDUSTRIES INC

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Report

1.0 Introduction

Alberta – Pacific Forest Industries Inc. (Alberta–Pacific) has prepared a Forest Harvest Plan (FHP) for the harvest of stands within Planning Unit 076164.

The Planning Unit is located within Forest Management Unit (FMU) L03 along the west side of Highway 63.

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 a Registered Forestry Professional from Alberta-Pacific.

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

This plan is being submitted for appraisal, for a 5-year FHP approval under the 2021-2022 Alberta-Pacific Annual Operating Plan (AOP).

2.1 Operating Ground Rules

This Planning Unit is designed in accordance with the Northeast Alberta Operating Ground Rules (OGRs). Alberta–Pacific is 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 below outlining the expected volumes of the harvest area.

4.1 Utilization

Deciduous and coniferous stands will adhere to the 15/10 utilization standard.

4.2 Field verification

Field verification was conducted to assess the timber quality, potential sensitive and historical sites, operability of the harvest area, and classification of water courses within the Planning Unit boundary. Where applicable, the findings of the layout team have been noted in the corresponding section of this report.

4.3 Understory Assessment

White Spruce understory within deciduous landbase will be protected utilizing high effort understory protection in stands identified as greater than 600 stems/ha by the Alberta Vegetation Inventory (AVI), as well as any potential areas found to have understory present that is not identified by the AVI. Any deciduous blocks found to have understory amounting to between 400 stems/ha and 600 stems/ha will be protected utilizing the avoidance method.

Blocks requiring understory protection or understory avoidance are noted within the *Block Summary Table*.

Block Summary Table

(Values rounded to whole numbers)

Table 1: Block Summary Table

This table provides a brief description of the proposed harvest blocks within the Planning Unit.

Deciduous Blocks						
<i>Source ID</i>	Opening Number	Harvest Season (Frozen/ Non-Frozen)	Area (ha)	Deciduous Volume (m³)	Incidental Conifer Volume (m³)	Total Volume (m³)
FC07615420861	4150762086	Frozen	43	6,851	2,744	9,595
FC07615423171	4150762317	Frozen	25	6,186	1,227	7,413
FC07615427201	4150762720	Frozen	98	25,113	6,247	31,360
FC07615427281	4150762728	Frozen	71	19,884	2,897	22,781
FC07615428321	4150762832	Frozen	173	43,928	7,775	51,703
FC07615429751	4150762975	Frozen	5	1,346	98	1,444
FC07615429871	4150762987	Frozen	12	2,394	560	2,954
FC07615433341	4150763334	Frozen	19	4,864	810	5,674
FC07615433611	4150763361	Frozen	12	3,189	370	3,559
FC07615434541	4150763454	Frozen	16	2,886	915	3,801
FC07615435041	4150763504	Frozen	20	4,234	1,169	5,403
FC07615435371	4150763537	Frozen	36	10,784	1,609	12,393
Totals			530	131,660	26,421	158,081

*Understory Block: White Spruce understory within deciduous landbase will be protected utilizing high effort understory protection in stands identified as greater than 600 stems/ha.

Any blocks found to have understory amounting to between 400 stems/ha and 600 stems/ha will be protected utilizing the avoidance method.

Coniferous Blocks						
<i>Source ID</i>	Opening Number	Harvest Season	Area (ha)	Conifer Volume (m³)	Incidental Deciduous Volume (m³)	Total Volume (m³)
FC07615426441	4150762644	Frozen	30	1,894	4,067	5,961
FC07615427271	4150762727	Frozen	11	964	1,053	2,017
FC07615427701	4150762770	Frozen	23	1,160	2,372	3,532
FC07615427851	4150762785	Frozen	4	241	39	280
FC07615427991	4150762799	Frozen	16	1,340	1,360	2,700
FC07615433561	4150763356	Frozen	33	2,408	3,618	6,026
FC07615433881	4150763388	Frozen	6	515	23	538
FC07615433951	4150763395	Frozen	15	1,164	577	1,741
FC07615436021	4150763602	Frozen	44	3,130	7,344	10,474
FC07715403121	4150770312	Frozen	35	2,204	4,894	7,098
Totals			217	15,020	25,347	40,367

4.4 Structure Retention

For Alberta-Pacific and Commercial Timber Permits, an average of 5% representative of all harvested area at the FMU level by stewardship reporting period will be retained. A harvest area may have zero structure but the FMU average shall be 5%. Non merchantable structure is not to be tracked as part of the 5%. Structure retention will be left in the following methods:

- Laid out patches
- Individual trees
- Small clumps left at the operators' discretion

4.5 Debris Management

The Planning Unit is situated within Alberta's Fire Control Zone number 42 as identified by Alberta Agriculture and Forestry (AAF).

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

4.6 Camp Location

The companies have identified a camp location for logging operations within this Planning Unit. 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).

SourceID	Opening Number	GRID	LATITUDE	LONGITUDE
FC07615428321	4150762139	55.6044	-112.273	FC07615428321
FC07615428321	4150762832	55.61383	-112.275	FC07615428321

5.0 Watercourse Protection

During the potential watercourses were identified during preliminary planning using wet areas mapping, LiDAR data, aerial imagery, as well as the available AVI data.

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.

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.

Watercourse Crossing Summary Table

Table 2: Watercourse Crossing Summary

A list of road crossings over field verified watercourses within the Planning Unit.

<i>Road ID</i>	<i>Crossing ID (Road Crossing Number)</i>	<i>Watercourse Classification</i>
LOC960237	2135	Ephemeral
LOC960237	2175	Ephemeral
RC07615420861	2066	Ephemeral
RC07615426441	2643	Ephemeral
RC07615427201	2741	Ephemeral
RC07615427201	2742	Ephemeral
RC07615427271	2747	Ephemeral
RC07615427281	2718	Ephemeral
RC07615427281	2748	Ephemeral
RC07615427281	2857	Transitional
RC07615427281	3460	Ephemeral
RC07615427701	2278	Ephemeral
RC07615427701	2763	Ephemeral
RC07615427991	2799	Beaver Pond
RC07615427991	3470	Ephemeral
RC07615428321	2137	Ephemeral
RC07615428321	2702	Ephemeral
RC07615428321	2844	Ephemeral
RC07615428321	2856	Intermittent
RC07615428321	2862	Ephemeral
RC07615428321	2866	Ephemeral

<i>Road ID</i>	<i>Crossing ID (Road Crossing Number)</i>	<i>Watercourse Classification</i>
RC07615429871	2999	Ephemeral
RC07615433341	3323	Ephemeral
RC07615433341	3335	Ephemeral
RC07615433561	3336	Ephemeral
RC07615433561	3340	Ephemeral
RC07615433561	3346	Ephemeral
RC07615433561	3367	Ephemeral
RC07615433561	3374	Transitional
RC07615433561	3375	Transitional
RC07615433561	3376	Ephemeral
RC07615433951	3383	Ephemeral
RC07615434541	3412	Ephemeral
RC07615434541	3463	Ephemeral
RC07615434541	3465	Ephemeral
RC07615436021	2676	Ephemeral
RC07615436021	2698	Ephemeral
RC07615436021	3594	Ephemeral

6.0 Road Information

Overview maps have been attached showing roads in accordance with Section 3.4.7. 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, Section 11.3.4.3 and Section 11.3.4.4 of the OGRs. To enable for silviculture activities, all-terrain vehicle (ATV) access may be left throughout the harvest area.

Road Attributes Table

(Values rounded to whole numbers)

Table 3: Road Attributes

Summary of the proposed in-block roads of the Planning Unit.

<i>Road ID</i>	Road Classification	Haul Season	Length, m
LOC960237	Temp	Frozen	1,534
MSL962986	Temp	Frozen	101
RC07615420861	Temp	Frozen	4,942
RC07615423171	Temp	Frozen	2,344
RC07615426441	Temp	Frozen	1,749
RC07615427201	Temp	Frozen	4,204
RC07615427271	Temp	Frozen	1,038
RC07615427281	Temp	Frozen	2,550
RC07615427281	Temp	Frozen	163
RC07615427701	Temp	Frozen	2,129
RC07615427991	Temp	Frozen	1,336
RC07615428321	Temp	Frozen	4,680
RC07615429751	Temp	Frozen	359
RC07615429871	Temp	Frozen	1,723
RC07615433341	Temp	Frozen	1,242
RC07615433561	Temp	Frozen	3,118
RC07615433611	Temp	Frozen	1,015
RC07615433881	Temp	Frozen	511
RC07615433951	Temp	Frozen	911
RC07615434541	Temp	Frozen	1,934

Road ID	Road Classification	Haul Season	Length, m
RC07615435041	Temp	Frozen	1,587
RC07615435371	Temp	Frozen	876
RC07615436021	Temp	Frozen	2,859
RC07715403121	Temp	Frozen	977

7.0 Land Use Information

A search of the Geographic Land Information Management and Planning System (GLIMPS) and Digital Integrated Dispositions (DIDs) yielded active dispositions within the FHP. 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 will restrict harvest operations in the FHP.

Land Use Summary Table

Table 4: Land Use Summary Table
Active dispositions in the Planning Unit

Disposition Number	Disposition Holder	Disposition Type
FRD610005	LAC LA BICHE COUNTY	FRD
DLO5996	NORTHLAND FOREST PRODUCTS LTD.	DLO
DLO900949	NORTHLAND FOREST PRODUCTS LTD.	DLO
LOC881309	CANADIAN NATURAL RESOURCES LIMITED	LOC
LOC801794	CANADIAN NATURAL RESOURCES LIMITED	LOC
LOC960237	CANADIAN NATURAL RESOURCES LIMITED	LOC
LOC931631	CANADIAN NATURAL RESOURCES LIMITED	LOC
LOC970145	CANADIAN NATURAL RESOURCES LIMITED	LOC
LOC970704	CANADIAN NATURAL RESOURCES LIMITED	LOC
PLA000203	CANADIAN NATURAL RESOURCES LIMITED	PLA
PLA2467	SUNCOR ENERGY INC.	PLA

Disposition Number	Disposition Holder	Disposition Type
PLA910833	CANADIAN NATURAL RESOURCES LIMITED	PLA
PLA960429	CANADIAN NATURAL RESOURCES LIMITED	PLA
PLA970168	CANADIAN NATURAL RESOURCES LIMITED	PLA
PLA040480	CANADIAN NATURAL RESOURCES LIMITED	PLA
PLA890113	CANADIAN NATURAL RESOURCES LIMITED	PLA
PLA880809	CANADIAN NATURAL RESOURCES LIMITED	PLA
PLA960428	CANADIAN NATURAL RESOURCES LIMITED	PLA
PLA971027	CANADIAN NATURAL RESOURCES LIMITED	PLA
PLA970118	CANADIAN NATURAL RESOURCES LIMITED	PLA
PLA970860	CANADIAN NATURAL RESOURCES LIMITED	PLA
PLA971401	CANADIAN NATURAL RESOURCES LIMITED	PLA
PLA3089	CANADIAN NATURAL RESOURCES LIMITED	PLA
PLA970403	CANADIAN NATURAL RESOURCES LIMITED	PLA
PLA820095	PLAINS MIDSTREAM CANADA ULC	PLA
PLA022757	CANADIAN NATURAL RESOURCES LIMITED	PLA
PLA970830	CANADIAN NATURAL RESOURCES LIMITED	PLA
PLA971057	CANADIAN NATURAL RESOURCES LIMITED	PLA

The FHP design incorporates pipeline crossings, for temporary roads. The agreements will be in place prior to the construction of these crossings.

8.0 Integration with Other Forest Users

8.1 Integration with Other Harvest Operators

This is not an integrated plan between a quota holder and the FMA holder.

8.2 Registered Fur Management Areas (RFMAs)

Notification letter were sent to RFMAs within the FHP who will be affected by operations. Any requests from the RFMA holders have been considered, and, where possible, the harvest design has been planned to accommodate the request.

Trapper Areas Table

Table 5: Trapper Areas Table

RFMA ID	Notification Method
2386	Letter
2916	Letter

8.3 Wildlife Management Unit(s) (WMU)

Planning Unit is located within WMU 512 . The Guides and Outfitters operating within this unit have been sent notification, via registered mail, on the FHP 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. A table with the active Guides and Outfitters in the WMU is included below.

Guide and Outfitters Table

Table 6: Guide and Outfitters

OG ID Number	Date	Contact Method
Ryk Visscher's Hunting Adventures Ltd.	February 2021	Registered Mail
Rough Country Outfitting	February 2021	Registered Mail
Northern Points Outfitting/Guiding Ltd.	February 2021	Registered Mail
Sherwood Outfitters Inc.	February 2021	Registered Mail
Grand Slam Hunting Adventures Ltd.	February 2021	Registered Mail
Groat Creek Outfitters	February 2021	Registered Mail
Northern Alberta Trophy Whitetail Hunts	February 2021	Registered Mail
Avenir Guiding & Outfitting	February 2021	Registered Mail
Tall Timbers Outfitting	February 2021	Registered Mail
Misty River Outfitters Ltd.	February 2021	Registered Mail

8.4 Indigenous Groups

During the General Development Plan (GDP) process, Alberta – Pacific conducts consultations with indigenous groups every year. There have not been any issues identified prior to FHP submission.

8.5 Other Forest Users

There are no known forest user groups operating within the Planning Unit area.

8.6 Forest Aesthetics

As outlined in Section 5.5. of the OGRs, Alberta – Pacific follows 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.

9.0 Species and Areas of Concern

9.1 Woodland Caribou

Planning Unit 076164 is partially located within Woodland Caribou Range; all operations within the Woodlands Caribou Zone will be consistent with section 7.7.1 of the OGRs.

9.2 Key Wildlife and Biodiversity Zone (KWBZ)

Planning Unit 076164 is not located within a Key Wildlife and Biodiversity Zone; all operations will be consistent with Section 7.7.5 of the OGRs

9.3 Other Species

All known sensitive wildlife sites have been buffered in accordance with Section 7.7.5 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 historical significance (historical resource sites) have been removed from the harvest design.

Upon completion of cutblock and road layout, a second review of the harvest blocks, and temporary 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, including signs of terrestrial lichen found within the Planning Unit.

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

9.5 Forest Health

During the field verification, a team evaluated the current state of the forest health in the FHP area, as outlined in Section 10.1 of the OGRs.

If any sites are identified post submission, Alberta – Pacific will take the appropriate action to protect these sites as per Section 10.1.2 of the OGRs.

10.0 SHS Information / Variance Summary

Variances from the Spatial Harvest Sequence (SHS) within the Planning Unit boundary are shown in Appendix 3 - *Spatial Harvest Sequence Summary Table*.

Note on Compartment LO3-A SHS Variance: Period 2 conifer (Al-Pac ownership) was planned in this FHP due to proximity to the Period 1 deciduous SHS. This action was done to avoid isolation of the conifer stands and maintain a “one-pass system” in the area. The PjMx and Pj strata exceeded 20% variance in the compartment due to the inclusion of Period 2 Conifer into the plan.

Additionally, an opportunity was identified to include low merchantability black spruce stands that were near and adjacent to the spatial harvest sequence. This has resulted in a variance greater than 20% in the Sb strata. Due to the small and fragmented nature of these strata, it is likely to go unharvested if not included his plan.

11.0 OGR Deviations

Table 7: Road Percent Deviations Table

Road deviations which contain blocks that are greater than 7 hectares, with potentially more than 5% road disturbance.

Source ID	Opening Number	Block Area (ha)	Harvest Season (Frozen/ Non-Frozen)	Road Percentage	Road Percentage Reason
FC07615420861	4150762086	43	Frozen	6.0	Narrow/irregular Block shape
FC07615423171	4150762317	25	Frozen	7.8	Narrow/irregular Block shape
FC07615426441	4150762644	30	Frozen	6.1	Narrow/irregular Block shape
FC07615427271	4150762727	11	Frozen	7.9	Access to other blocks
FC07615427281	4150762728	71	Frozen	5.0	Access to other blocks
FC07615427701	4150762770	23	Frozen	5.9	Access to other blocks
FC07615427991	4150762799	16	Frozen	6.9	Access to other blocks
FC07615429871	4150762987	12	Frozen	11.8	Narrow/irregular Block shape
FC07615433341	4150763334	19	Frozen	6.7	Access to other blocks
FC07615433561	4150763356	33	Frozen	7.2	Access to other blocks

Source ID	Opening Number	Block Area (ha)	Harvest Season (Frozen/ Non-Frozen)	Road Percentage	Road Percentage Reason
FC07615433611	4150763361	12	Frozen	5.2	Access to other blocks
FC07615433951	4150763395	15	Frozen	5.8	Access to other blocks
FC07615434541	4150763454	16	Frozen	5.5	Access to other blocks
FC07615435041	4150763504	20	Frozen	7.9	Narrow/irregular Block shape
FC07615435371	4150763537	36	Frozen	5.6	Narrow/irregular Block shape
FC07615436021	4150763602	44	Frozen	7.5	Narrow/irregular Block shape
FC07715403121	4150770312	35	Frozen	7.1	High volume/large timber

12.0 Validation by Registered Forest Practitioner

This plan is being prepared and submitted on behalf of Alberta-Pacific Forest Industries Inc.

ALBERTA-PACIFIC FOREST INDUSTRIES INC.



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