



29 July 2021

Forest Harvest Plan

PU079094



**ALBERTA
PACIFIC**
FOREST INDUSTRIES INC



Table of Contents

1.0 Introduction	5
2.0 General Planning Unit Information /Design Considerations	5
2.1 Operating Ground Rules	5
3.0 Maps	6
4.0 Block Information.....	6
4.1 Utilization	6
4.2 Field verification	6
4.3 Understory Assessment.....	6
Table 1: Block Summary Table	7
4.4 Structure Retention	8
4.5 Debris Management.....	8
4.6 Camp Location	8
5.0 Watercourse Protection	9
Table 2: Watercourse Crossing Summary.....	10
6.0 Road Information	10
Table 3: Road Attributes.....	11
7.0 Land Use Information	11
Table 4: Land Use Summary Table	12
8.0 Integration with Other Forest Users	12
8.1 Integration with Other Harvest Operators	12
8.2 Registered Fur Management Areas (RFMAs).....	12
Table 5: Trapper Areas Table	12
8.3 Wildlife Management Unit(s) (WMU)	12
Table 6: Guide and Outfitters.....	13
8.4 Indigenous Groups	13
8.5 Other Forest Users.....	13
8.6 Forest Aesthetics.....	13

9.0 Species and Areas of Concern 14

 9.1 Woodland Caribou 14

 9.2 Key Wildlife and Biodiversity Zone (KWBZ)..... 14

 9.3 Other Species 14

 9.4 Cultural Sites..... 14

 9.5 Forest Health..... 14

10.0 SHS Information / Variance Summary..... 14

11.0 OGR Deviations..... 15

 Table 7: Road Percent Deviations Table 15

 Additional Variances to note: 15

12.0 Validation by Registered Forest Practitioner..... 16

Appendices

Appendix 1- FHP Block Maps

Appendix 2- FHP Overview Map

Appendix 3- Spatial Harvest Sequence Summary Table

Appendix 4- Spatial Harvest Sequence Summary Map

Report

1.0 Introduction

Alberta – Pacific Forest Industries Inc. (Al-Pac) has prepared a Forest Harvest Plan (FHP) for the harvest of stands within Planning Unit 079094.

The Planning Unit is located within Forest Management Unit (FMU) L11.

Copies of this Forest Harvest Plan are made available on the Al-Pac website, at www.alpac.ca.

2.0 General Planning Unit Information /Design Considerations

This FHP has been validated by a Registered Forestry Professional from Al-Pac.

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 2021-2022 Al-Pac Annual Operating Plan (AOP).

This Planning Unit is located Northwest of Conklin approximately 20km and is accessed by the Waddell Road north of the Leismer Air Port. The Waddell Creek runs through the center of the planned area, and is classed a large permanent. This area is trafficked seasonally for hunting as there is good all season access on the Waddell road, and there are active oilfield leases and pipelines allowing quad access for hunting. There are also a few hunting camp sites beside borrow pits on the Waddell road.

2.1 Operating Ground Rules

This Planning Unit is designed in accordance with the Northeast Alberta Operating Ground Rules (OGRs). Al-Pac 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 sections 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.

In this submission, there were no blocks that warranted high effort understory protection due to the small patch sizes. The alternative tactic was to plan additional structure retention in the higher density areas.

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						
Source ID	Opening Number	Harvest Season (Frozen/Non-Frozen)	Area (ha)	Deciduous Volume (m ³)	Incidental Conifer Volume (m ³)	Total Volume (m ³)
FA07808431421	4080783142	Frozen	58	12,803	1,668	14,471
FA07808431451	4080783145	Non-Frozen	16	3,670	371	4,041
FA07808431701	4080783170	Non-Frozen	88	18,606	3,127	21,733
FA07808431781	4080783178	Frozen	34	7,678	684	8,362
FA07808432091	4080783209	Non-Frozen	53	11,504	1,000	12,504
FA07809423631	4090782363	Non-Frozen	8	1,195	566	1,761
FA07809423641	4090782364	Frozen	10	1,517	743	2,260
FA07809424241	4090782424	Frozen	9	1,782	849	2,631
FA07809424461	4090782446	Frozen	3	570	325	895
FA07809425131	4090782513	Frozen	3	423	13	436
FA07809425331	4090782533	Non-Frozen	11	1,928	60	1,988
FA07809425831	4090782583	Non-Frozen	24	5,334	211	5,545
FA07809425981	4090782598	Frozen	11	2,383	77	2,460
FA07809426131	4090782613	Non-Frozen	13	2,285	427	2,712
FA07809426531	4090782653	Non-Frozen	30	6,269	635	6,904
FA07809426901	4090782690	Non-Frozen	13	2,229	168	2,397
FA07809426941	4090782694	Non-Frozen	13	2,110	639	2,749
FA07809434671	4090783467	Non-Frozen	18	3,757	1,034	4,791
FA07908404181	4080790418	Non-Frozen	38	8,050	673	8,723
FA07908405841	4080790584	Non-Frozen	85	18,778	1,629	20,407
FA07909402021	4090790202	Non-Frozen	21	4,706	475	5,181
FA07909402301	4090790230	Frozen	6	1,200	247	1,447
FA07909414011	4090791401	Non-Frozen	13	3,066	334	3,400

CONIFEROUS BLOCKS						
Source ID	Opening Number	Harvest Season (Frozen/ Non-Frozen)	Area (ha)	Conifer Volume (m ³)	Incidental Deciduous Volume (m ³)	Total Volume (m ³)
FA07809423391	4090782339	Frozen	25	3,033	3,187	6,220
FA07809424171	4090782417	Frozen	9	1,840	790	2,630
FA07908409101	4080790910	Non-Frozen	28	2,943	4,036	6,979

*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.

4.4 Structure Retention

For Al-Pac, 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). The planned harvest areas are **not** within a 10km community FireSmart Zone.

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).

CAMP LOCATION			
SOURCE ID	OPENING #	LAT	LONG
FA07808431701	4080783170	55.771	-111.283
FA07809423391	4090782339	55.780	-111.293

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 1: Watercourse Crossing Summary

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

WATERCOURSE CROSSINGS			WATERCOURSE CROSSINGS		
Road ID	Road Crossing Number	Stream Class	Road ID	Road Crossing Number	Stream Class
RA07808431421	3111	Ephemeral	RA07809423631	2374	Ephemeral
RA07808431421	3122	Ephemeral	RA07809423631	2394	Ephemeral
RA07808431421	3151	Ephemeral	RA07809425331	2524	Ephemeral
RA07808431421	3154	Ephemeral	RA07809425331	2533	Intermittent
RA07808431421	3165	Ephemeral	RA07809425831	2563	Ephemeral
RA07808431451	3157	Ephemeral	RA07809426531	2613	Intermittent
RA07808431451	3166	Ephemeral	RA07809426531	2633	Ephemeral
RA07808431701	3014	Ephemeral	RA07809426531	2663	Ephemeral
RA07808431701	3044	Ephemeral	RA07809426531	2671	Intermittent
RA07808431701	3054	Large Permanent	RA07809434671	3456	Ephemeral
RA07808431701	3161	Ephemeral	RA07809434671	3457	Ephemeral
RA07808431701	3162	Ephemeral	RA07809434671	3469	Ephemeral
RA07808431701	3172	Ephemeral	RA07908404181	0416	Ephemeral
RA07808431701	3174	Ephemeral	RA07908405841	0551	Transitional
RA07808431701	3185	Ephemeral	RA07908405841	0561	Ephemeral
RA07808432091	0560	Transitional	RA07908405841	0597	Ephemeral
RA07808432091	3196	Ephemeral	RA07909402021	0202	Ephemeral
RA07808432091	3199	Ephemeral	RA07909402021	0211	Ephemeral
RA07808432091	3208	Ephemeral	RA07909402021	0212	Ephemeral
RA07808432091	3209	Ephemeral	RA07909402021	1348	Ephemeral
RA07809423391	2319	Ephemeral	RA07909402301	0230	Transitional
RA07809423391	2328	Ephemeral	RA07909402301	0232	Ephemeral
RA07809423391	2610	Ephemeral	RA07909402301	0233	Ephemeral
RA07809423391	2662	Ephemeral	RA07909402301	0234	Ephemeral
RA07809423631	2341	Ephemeral	RA07909402301	0244	Transitional
RA07809423631	2354	Transitional	RA07909402301	1461	Ephemeral
RA07809423631	2364	Small Permanent	RA07909402301	3479	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 2: Road Attributes
Summary of the proposed main roads of the Planning Unit.

MAIN ROAD LENGTHS				
Road ID	Road Classification	Class	Haul Season	Length (m)
LOC910360	DLO	Temp	Non-Frozen	45
LOC910360	DLO	Temp	Frozen	569
RA07808431421	MAIN	Temp	Frozen	2,613
RA07808431451	MAIN	Temp	Non-Frozen	943
RA07808431701	MAIN	Temp	Non-Frozen	3,642
RA07808432091	MAIN	Temp	Non-Frozen	1,118
RA07809423391	MAIN	Temp	Frozen	1,651
RA07809423631	MAIN	Temp	Non-Frozen	1,983
RA07809423641	MAIN	Temp	Frozen	31
RA07809424171	MAIN	Temp	Frozen	177
RA07809424461	MAIN	Temp	Frozen	521
RA07809425331	MAIN	Temp	Non-Frozen	1,131
RA07809425831	MAIN	Temp	Non-Frozen	1,184
RA07809425981	MAIN	Temp	Frozen	529
RA07809426131	MAIN	Temp	Frozen	852
RA07809426531	MAIN	Temp	Non-Frozen	1,617
RA07809426901	MAIN	Temp	Non-Frozen	1,157
RA07809434671	MAIN	Temp	Non-Frozen	755
RA07908404181	MAIN	Temp	Non-Frozen	1,082
RA07908405841	MAIN	Temp	Non-Frozen	1,543
RA07909402021	MAIN	Temp	Non-Frozen	1,596
RA07909402301	MAIN	Temp	Non-Frozen	2,085
RA07909414011	MAIN	Temp	Non-Frozen	16

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 3: Land Use Summary Table
Active dispositions impacted by Harvest Plan:

LANDUSE SUMMARY		
Disposition Number	Disposition Holder	Disposition Type
LOC910360	Athabasca Oil Corporation	License of Occupation
LOC931332	Athabasca Oil Corporation	License of Occupation
PLA982465	Sequoia	Pipeline
DPL931031	Nova	Pipeline

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

8.0 Integration with Other Forest Users

8.1 Integration with Other Harvest Operators

This plan is not integrated with other Quota Holders or Permittees, and effort was taken to avoid other's landbase (AFI's sequenced conifer).

8.2 Registered Fur Management Areas (RFMAs)

Notification letters 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 4: Trapper Areas Table

RFMA HOLDERS	
RFMA ID	Contact Method
1474	Registered Mail
1267	Registered Mail
1523	Registered Mail

8.3 Wildlife Management Unit(s) (WMU)

Planning Unit is located within WMU 515. 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 5: Guide and Outfitters

GUIDE & OUTFITTERS		
OG Company	Date	Contact Method
Buckbrush Outfitters	January 29th, 2021	Letter
Northern Alberta's Whitetail Camp	January 29th, 2021	Letter
Northern Alberta Trophy Whitetail Hunt	January 29th, 2021	Letter
Northern Points Outfitting/Guiding Ltd	January 29th, 2021	Letter
Triple L Outfitters Ltd.	January 29th, 2021	Letter
Misty River Outfitters Ltd.	January 29th, 2021	Letter
Sherwood Outfitters Inc.	January 29th, 2021	Letter
Groat Creek Outfitters	January 29th, 2021	Letter
Avenir Guiding & Outfitting	January 29th, 2021	Letter
Grand Slam Hunting Adventures Ltd.	January 29th, 2021	Letter
Tall Timbers Outfitting	January 29th, 2021	Letter
Ryk Visscher's Hunting Adventures Ltd.	January 29th, 2021	Letter
Wayne Zaft Hunting Adventures Ltd.	January 29th, 2021	Letter

8.4 Indigenous Groups

During the General Development Plan (GDP) process, Al-Pac conducts consultations with indigenous groups every year. Al-Pac works with First Nations to address concerns on an ongoing basis, and considerations are incorporated into the planning process.

8.5 Other Forest Users

There are no other forest user groups identified within the Planning Unit area.

8.6 Forest Aesthetics

As outlined in Section 5.5. of the OGRs, Al-Pac 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. No specific strategies were employed for aesthetics.

9.0 Species and Areas of Concern

9.1 Woodland Caribou

Planning Unit 079094 is located within a Woodland Caribou Range. The caribou range overlaps the northeast part of the planning unit. 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 079094 is **not** within a Key Wildlife and Biodiversity Zone.

9.3 Other Species

All known sensitive wildlife sites have been buffered in accordance with Section 7.7.5 of the OGRs.

9.4 Cultural 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.

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. No forest health concerns were identified.

If any sites are identified post submission, Al-Pac 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*.

11.0 OGR Deviations

Table 6: Road Percent Deviations Table

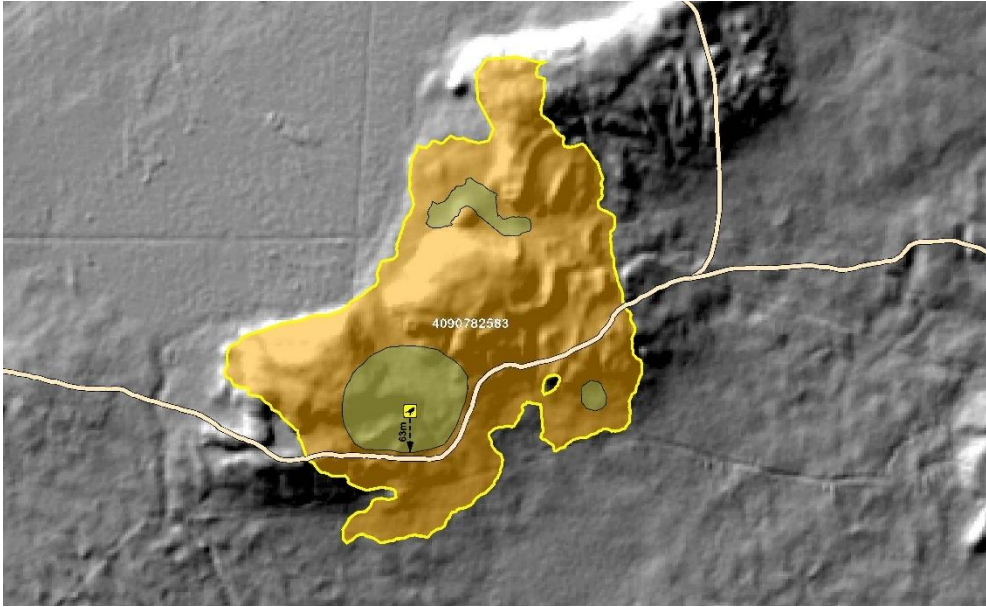
Road deviations which contain blocks that are greater than 7 hectares, with potentially more than 5% road disturbance.

ROAD ATTRIBUTES						
Source ID	Opening Number	Block Area (ha)	Operations (Conifer/Deciduous)	Harvest Season (Frozen/ Non-Frozen)	Road Percentage	Road Percentage Reason
FA07808431451	4080783145	16.4	Deciduous	Non-Frozen	7.1	Access to other blocks
FA07808431701	4080783170	88.1	Deciduous	Non-Frozen	6.0	Access to other blocks
FA07808432091	4080783209	53.0	Deciduous	Non-Frozen	5.4	Access to other blocks
FA07809423391	4090782339	25.3	Coniferous	Frozen	7.7	Narrow/irregular block
FA07809423631	4090782363	8.3	Deciduous	Non-Frozen	7.9	Access to other blocks
FA07809423641	4090782364	9.9	Deciduous	Frozen	4.8	Access to other blocks
FA07809425331	4090782533	11.3	Deciduous	Non-Frozen	10.2	Access to other blocks
FA07809425831	4090782583	23.9	Deciduous	Non-Frozen	6.0	Access to other blocks
FA07809426131	4090782613	12.6	Deciduous	Non-Frozen	10.3	Narrow/irregular block
FA07809426531	4090782653	30.4	Deciduous	Non-Frozen	7.4	Narrow/irregular block
FA07809426901	4090782690	13.0	Deciduous	Non-Frozen	8.6	Narrow/irregular block
FA07809426941	4090782694	13.1	Deciduous	Non-Frozen	6.9	Narrow/irregular block
FA07809434671	4090783467	18.4	Deciduous	Non-Frozen	7.7	Narrow/irregular block
FA07908404181	4080790418	38.0	Deciduous	Non-Frozen	5.3	Access to other blocks
FA07908405841	4080790584	84.6	Deciduous	Non-Frozen	4.6	Access to other blocks
FA07909402021	4090790202	20.8	Deciduous	Non-Frozen	10.7	Access to other blocks
FA07909414011	4090791401	12.8	Deciduous	Non-Frozen	11.1	Access to other blocks

Additional Variances to note:

Other OGR Road Variances			
Source ID	Harvest Season (Frozen/ Non-Frozen)	Buffer	Reason
FA07808431701	Non-frozen	100m	Main haul road gets to 80m of the highwater mark of a small permanent for approximately 200m length.
FA07809423631	Frozen	100m	Main haul road is within 70m of a beaverpond for approximately 100m length.
FA07809425831	Non-frozen	100m	Main haul road comes within a 100m of a stick nest due to operational constraints. Additional explanation provided in write-up.

During Layout of the haul road through Block FA07809425831, a stick nest was found just off the road alignment. In attempts to maintain a 100m buffer, planners explored moving the road but found conditions at the edge of the block would greatly impact the road's construction and operability. It was decided to move the road as far away from the nest as possible while still maintaining an operable alignment through the terrain. This design still maintains 2.5 hectares of protected area around the nest with a reasonable 63m spacing where it is narrowest. No activity was apparent in the nest during the layout period. Please see screenshot inserted below.



12.0 Validation by Registered Forest Practitioner

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

ALBERTA-PACIFIC FOREST INDUSTRIES INC.

Dennis Froese

