



30-Jun-20

Forest Harvest Plan

Planning Unit 080015



**ALBERTA
PACIFIC**
FOREST INDUSTRIES INC

Forest Harvest Plan

Planning Unit 080015

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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 080015. Alberta-Pacific holds the active timber disposition FMA9100029.

Planning Unit 080015 is located along Alberta-Pacific's North 'C' Road within Forest Management Unit (FMU) S18.

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, roads and water crossings within the Planning Unit.

This plan is being submitted for appraisal, for a 5-year FHP approval under the 2020-2021 Alberta-Pacific Annual Operating Plan (AOP).

2.1 Operating Ground Rules

Planning Unit 080015 has been designed in accordance with the Northeast Alberta Operating Ground Rules (OGRs) revised 2018. 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 has 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.

4.1 Field verification

The proposed blocks were ground verified by a field layout team during the winter and spring of 2020. 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 findings of the layout team have been noted in the corresponding section of this report.

4.2 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						
Source ID	Opening Number	Harvest Season (Frozen/Non-Frozen)	Area (ha)	Deciduous Volume (m ³)	Incidental Conifer Volume (m ³)	Total Volume (m ³)
FC08001519951	5010801995	Frozen	42	12,203	843	13,046
FC08001520641	5010802064	Frozen	80	22,158	3,138	25,296
FC08001521171	5010802117	Frozen	28	8,205	579	8,784
FC08001521931	5010802193	Frozen	24	5,874	964	6,838
FC08001522111	5010802211	Frozen	7	1,710	310	2,021
FC08001522281	5010802228	Frozen	24	5,524	992	6,516
FC08001522811	5010802281	Frozen	25	6,599	831	7,430
FC08001523071	5010802307	Frozen	58	13,757	2,013	15,770
FC08001523151	5010802315	Non-Frozen	28	6,814	997	7,812
FC08001523231	5010802323	Non-Frozen	16	4,433	498	4,932
FC08001523541	5010802323	Frozen	24	6,630	745	7,375
FC08001523811	5010802381	Frozen	23	6,227	586	6,813
FC08001524191	5010802419	Non-Frozen	5	1,374	56	1,429
FC08001524221	5010802422	Non-Frozen	13	3,316	708	4,024
FC08001524481	5010802448	Non-Frozen	16	4,660	448	5,109
FC08001524811	5010802481	Frozen	10	2,100	1,128	3,227
FC08001524861	5010802486	Frozen	34	7,865	2,048	9,913
FC08001529611	5010802961	Frozen	93	27,692	1,704	29,396
FC08001529771	5010802977	Frozen	86	23,937	2,829	26,767
FC08001530811	5010803081	Frozen	24	5,732	1,340	7,072
		Total	661.0	176,810.8	22,758.4	199,569.1

*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 and meet operational criteria.

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

4.3 Structure Retention

Alberta- Pacific will leave an average of 5% merchantable volume for structure retention throughout the FMU. Structure retention will be left in the following methods:

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

4.4 Debris Management

Planning Unit 080015 is situated within Alberta's Fire Control Zone number 46 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. Due to the proximity to the community of Wabasca, portions of this Planning Unit fall within the Firesmart Community Zone, and debris will be disposed of through piling and burning in safe conditions to reduce the hazards of fuel loading.

4.5 Camp Location

The companies have identified camp locations 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).

Table 2: Camp Locations

SOURCE ID	OPENING NUMBER	LATITUDE	LONGITUDE
FC08001523811	5010802381	55.951853	-114.027555
FC08001519951	5010801995	55.949518	-114.135809

5.0 Watercourse Protection

During the preliminary planning of Planning Unit 080015, potential watercourses were identified 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 3: Watercourse Crossing Summary

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

Road ID	Road Crossing Number	Watercourse Classification
RC08001519951	1876	EPHEMERAL
	2025	EPHEMERAL
	2015	EPHEMERAL
	2016	EPHEMERAL
	1977	EPHEMERAL
	1972	EPHEMERAL
	1971	EPHEMERAL
	1985	EPHEMERAL
RC08001520641	2099	EPHEMERAL
	2105	EPHEMERAL
RC08001521171	2137	EPHEMERAL
	2127	EPHEMERAL
	2138	SMALL PERM
RC08001521931	2171	EPHEMERAL
	2192	EPHEMERAL
	1538	EPHEMERAL
	1468	EPHEMERAL
RC08001522111	2221	EPHEMERAL
	2242	SMALL PERM
RC08001522281	2225	EPHEMERAL
RC08001523071	2287	EPHEMERAL
	2399	SMALL PERM
	2379	EPHEMERAL
RC08001524191	2429	EPHEMERAL
RC08001524811	2461	SMALL PERM
RC08001524861	2476	EPHEMERAL
RC08001529611	2903	EPHEMERAL
	2941	EPHEMERAL
	2933	EPHEMERAL
	2026	EPHEMERAL
	2078	EPHEMERAL
	2991	EPHEMERAL
	2036	EPHEMERAL
RC08001529771	2984	EPHEMERAL
	2915	EPHEMERAL
	2965	EPHEMERAL
RC08001530811	2904	EPHEMERAL
	2914	EPHEMERAL
	2925	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 4: Road Attributes

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

Road ID	Road Classification	Haul Season	Length (m)
RC08001519951	Temp, Class 4	Frozen	2,041
RC08001520641	Temp, Class 4	Frozen	2,142
RC08001521171	Temp, Class 4	Frozen	2,480
RC08001521931	Temp, Class 4	Frozen	5,504
RC08001522111	Temp, Class 4	Frozen	1,272
RC08001522281	Temp, Class 4	Frozen	283
RC08001522811	Temp, Class 4	Frozen	1,910
RC08001523015	Temp, Class 4	Non-Frozen	1,114
RC08001523071	Temp, Class 4	Non-Frozen	155
RC08001523071	Temp, Class 4	Frozen	100
RC08001523151	Temp, Class 4	Non-Frozen	1,761
RC08001523541	Temp, Class 4	Frozen	808
RC08001523811	Temp, Class 4	Frozen	646
RC08001524191	Temp, Class 4	Non-Frozen	537
RC08001524221	Temp, Class 4	Non-Frozen	497
RC08001524811	Temp, Class 4	Frozen	669
RC08001524861	Temp, Class 4	Frozen	1,021
RC08001529611	Temp, Class 4	Frozen	3,869
RC08001529771	Temp, Class 4	Frozen	2,647
RC08001529771	Temp, Class 4	Frozen	9
RC08001530811	Temp, Class 4	Frozen	1,577
		Total	31,041

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

Land Use Summary Table

Table 5: Land Use Summary Table
Active dispositions in the Planning Unit

Disposition Number	Disposition Holder	Disposition Type
DPL030695	NOVA GAS TRANSMISSION LTD.	DPL
PLA970508	SEQUOIA RESOURCES CORP.	PLA
DPL961367A	NOVA GAS TRANSMISSION LTD.	DPL
MSL960089	Sequoia	MSL
MSL170144	Husky	MSL
MSL170141	Husky	MSL
ISP990237 (2)	AlPac	ISP
CNT090059	SLAVE LAKE OFFICE - FORESTRY DEPT. OF SUSTAINABLE RESOURCE DEV	CNT

8.0 Integration with Other Forest Users

8.1 Integration with Other Harvest Operators

This plan was not designed to be integrated as there is very little mature coniferous landbase within the planning unit's boundary. This plan has been sent to the respective Quota Holder within FMU S18 (West Fraser Mills Ltd.) for their review and consent.

8.2 Registered Fur Management Areas (RFMAs)

The RFMAs within the Planning Unit boundary are listed below and may be affected by operations. Notification letters were sent to the respective RFMA holders, any requests from any RFMA holder have been considered, and, where possible, the harvest design has been planned to accommodate the request.

Trapper Areas Table

Table 6: Trapper Areas Table
RFMA holders affected by harvest operations.

RFMA ID	Notification Method
50	Letter and Phone
319	Letter

8.3 Wildlife Management Unit(s) (WMU)

Planning Unit 080015 is located within WMU #542. The Guides and Outfitters operating within this unit have been sent notification, via registered mail, on the Planning Unit Boundary, as well as a timeline for the commencement of harvest operations. Any requests from Guides and Outfitters will be considered, and, where possible, the harvest design has been or will be planned to accommodate any request.

Guide and Outfitters Table

Table 7: Guide and Outfitters

List of Guide and Outfitters active in WMU #542.

Company Name	Notification Method
Wide North Outfitters Ltd.	Registered Mail
Blue Bronna Outfitting	
Northern Adventure Hunts	
Huellbusch, Jason	
Three Rivers Adventures	
Northern Edge Outfitting Ltd	
Grizzly Mountain Outfitters	
North Alberta Outfitters	
Northern Wilderness Outfitters	

8.4 Indigenous Groups

During the General Development Plan (GDP) process, Alberta – Pacific conducts consultations with indigenous groups every year. Al-Pac's 2020-2021 GDP has been approved which included this Planning Unit. Any site specific concerns will be verified and mitigated accordingly should they arise.

8.5 Other Forest Users

There are no forest user groups identified 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. Large buffers were maintained between Weaver, McLeod, and Sanders Lakes, and from the water, harvest areas will not be visible. 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 080015 is not located within caribou range.

There were no rare plants, including signs of terrestrial lichen found within the Planning Unit.

9.2 Key Wildlife and Biodiversity Zone (KWBZ)

Planning Unit 080015 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 Historical Resources

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.

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

9.5 Forest Health

During the Pre-Harvest Assessments, there were no forest health/protection concerns identified as outlined in Section 10 of the OGRs.

If any sites are identified post submission, Alberta – Pacific will take the appropriate action in cooperation with other users and the Government of Alberta.

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 8: Road Percent Deviations Table

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

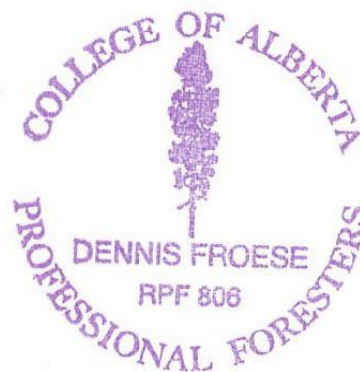
Source ID	Opening Number	Block Area (ha)	Road Percentage	Road Percentage Reason
FC08001530811	5010803081	24	5.4	Limited Decking Along Main Access
FC08001524861	5010802486	34	4.5	Limited Decking Along Main Access
FC08001524811	5010802481	10	6.8	Narrow Block Shape
FC08001524221	5010802422	13	7.7	Limited Decking Along Main Access
FC08001523811	5010802381	23	5.2	Limited Decking Along Main Access
FC08001523151	5010802315	28	5.3	Limited Decking Along Main Access
FC08001522811	5010802281	25	8.5	Limited Decking Along Main Access
FC08001522281	5010802228	24	4.8	Narrow Block Shape
FC08001522111	5010802211	7	10.0	Limited Decking Along Main Access
FC08001521931	5010802193	24	6.0	Limited Decking Along Main Access
FC08001521171	5010802117	28	4.9	Limited Decking Along Main Access
FC08001520641	5010802064	80	4.5	Limited Decking Along Main Access

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.

Dennis Froese, RPF



Operator: Al-Pac

PD 1, Year 1-10

03/31/2020

Harvest Profile					Planned for Harvest (ha)										Asbuilts							Combined As-Built & Planned							Unplanned					
										Variance					Harvested (ha)					SHS Assessment (Excluding Slivers)			Variance			SHS Assessment (Excluding Slivers)								
										Substantial			Slivers										Substantial			SHS Assessment (Excluding Slivers)								
Compartment	Company Specific Yield Strata	Provincial Yield Strata	Approved DFA 10 Year SHS	Operator Approved FMP 10 Year SHS	SHS 1-10yr	SHS 11-20yr	Contributing Landbase Outside SHS	Non-Contributing Landbase	Total	Additions	Deletions	Deferrals	Total	Additions	Deletions	Deferrals	Total	SHS 1-10yr	SHS 11-20yr	Contributing Landbase Outside SHS	Non-Contributing Landbase	Total	SHS Variance (Additions %)	Difference in Area (Subst. Add. - D&D)	Difference in Area Total Harvested - 10yr FMP SHS	Additions	Deletions	Deferrals	SHS Variance (Additions %)	Difference in Area (Subst. Add. - D&D)	Remaining Available Area (SHS & Non-SHS)	unplanned SHS in Compartment		
S18-A	All	All	12,363	7,591	2,709	-	121	70	2,900	191	342	636	978	258	393	651		1,305	-	84	19	1,408	2.52%	(787)	(6,183)	294	342	636	3.88%	(684)	4,691		2,206	
	Aw/AwU	D	7,591	7,591	2,709.30	-	106.07	70.23	2,885.60	176.3	342.0	636.1	978.1	56.8	393.2	450.0		1,304.5	-	84.5	18.6	1,407.6	2.32%	(802)	(6,183)	279	342	636	3.68%	(699)	3,298		2,206	
	PjMX	DC-P	15	-	-	-	6.17	-	6.17	6.2	-	-	-	2.4	-	2.4		-	-	-	-	-	0.00%	-	-	6	-	-	-	0.00%	-		(6)	-
	AwSx	DC-S	1,084	-	-	-	-	-	-	-	-	-	-	52.3	-	52.3		-	-	-	-	-	0.00%	-	-	-	-	-	-	0.00%	-		-	-
	SxAw	CD-SW	1,332	-	-	-	-	-	-	-	-	-	-	28.8	-	28.8		-	-	-	-	-	0.00%	-	-	-	-	-	-	0.00%	-		-	-
	PjMx	CD-P	30	-	-	-	-	-	-	-	-	-	-	2.4	-	2.4		-	-	-	-	-	0.00%	-	-	-	-	-	-	0.00%	-		-	-
	SxAw	CD-SB	32	-	-	-	2.54	-	2.54	2.5	-	-	-	3.8	-	3.8		-	-	-	-	-	0.00%	-	-	3	-	-	-	0.00%	-		(3)	-
	Sw	C-SW	1,896	-	-	-	3.81	-	3.81	3.8	-	-	-	21.7	-	21.7		-	-	-	-	-	0.00%	-	-	4	-	-	-	0.00%	-		(4)	-
	Pj	C-P	100	-	-	-	-	-	-	-	-	-	-	3.5	-	3.5		-	-	-	-	-	0.00%	-	-	-	-	-	-	0.00%	-		-	-
	SbG	C-SB	282	-	-	-	2.28	-	2.28	2.3	-	-	-	44.5	-	44.5		-	-	-	-	-	0.00%	-	-	2	-	-	-	0.00%	-	(2)	-	
	SBFM	C-SBFM	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	0.00%	-	-	-	-	-	-	0.00%	-	-	-	
	X	NoStrata	-	-	-	-	-	-	-	-	-	-	-	41.8	-	41.8		-	-	-	-	-	0.00%	-	-	-	-	-	-	0.00%	-	-	-	

* Deletions and Deferrals to be provided in shapefile format for next FMP
Values may be affected by rounding

Planning Units submitted with this variance Calculation: 080015, 081055, 081045, 082015