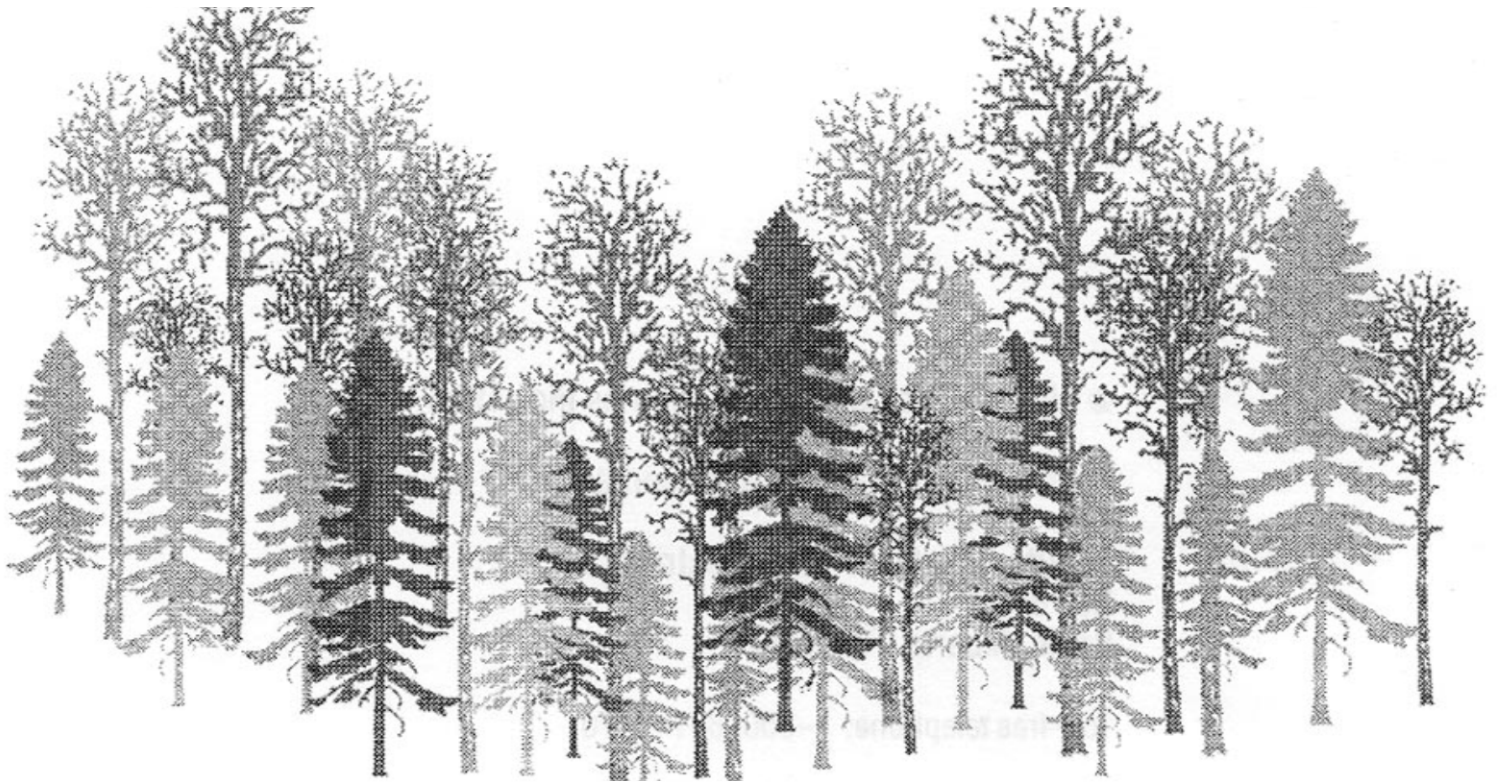


**ALBERTA
PACIFIC**
FOREST INDUSTRIES INC

Forest Harvest Plan



Planning Unit 085045

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Planning Unit 085045 Forest Harvest Plan

1. Introduction

This Forest Harvest Plan (FHP) for Planning Unit 085045 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 2018-19 Alberta-Pacific Forest Industries Inc. (Alberta-Pacific) Annual Operating Plan (AOP).

This FHP has been discussed with Alberta Agriculture and Forestry (AAF).

2. Planning Unit Specific Comments

Planning Unit 085045 is located northwest of the Wabasca Desmarais, and south of Peerless Lake and Trout Lake.

The planning unit is located in Forest Management Unit (FMU) S11. Alberta-Pacific has rights to D as deciduous landbase.

The harvest design utilizes the 2006 Spatial Harvest Sequence (SHS).

The deciduous and coniferous utilization standards will be 15/10.

Integration

Since this FHP is in FMU S11 it has been provided for review to the following forest operator:

S11 Logging Company Ltd.

Alberta-Pacific has received their agreement for this plan on February 28, 2018.

Watershed

Trout river has been surveyed as fish bearing and navigable and will be buffered accordingly.

All unsurveyed channeled creeks have been buffered and crossed as though they were fish bearing.

Stand Structure

An average of 5% of the merchantable volume will be left in stand structure over the FMU. The structure will be left as layout patches, single trees and small clumps of timber at the operators' discretion.

Debris Management

Some of the blocks in this unit are outside FireSmart Community Zones as identified by AAF. One or more of the following debris management strategies apply for blocks within this planning unit:

- Methods described in the Forest and Prairie Protection Act and Regulations, and/or
- Thinly spread slash throughout the block.

Blocks within this planning unit will not utilize the retention of debris piles as a management strategy.

Design Comments

During the layout phase of this operation, Alberta-Pacific looked for signs of insect or disease infestations. No signs of insect or disease were found.

3. Block Information

The following table summarizes the volumes within Alberta-Pacific's FHP blocks.

Landbase Volume Summary

Company	Area (ha)	Decid (m3)	Conif (m3)	Inc Conif (m3)	Total (m3)
Alberta-Pacific	1,346	269,021	0	17,043	286,064

Alberta-Pacific Deciduous First Entry Block Listing

(Values Affected by Rounding)

Source Id	Opening Num	Harv Season	Conif Charge	Detail Plan	Area (ha)	Decid (m3)	Conif (m3)	Inc Conif (m3)	Total (m3)
08503530441	5030853044	F	INC		20	2,982	0	142	3,123
08503530681	5030853068	F	INC		18	2,989	0	353	3,343
08503531481	5030853148	N	INC		15	3,362	0	287	3,649
08503531641	5030853164	F	INC		30	5,131	0	446	5,577
08504513281	5040851328	F	INC		4	555	0	52	606
08504515481	5040851548	F	INC		25	4,148	0	204	4,352

**Alberta-Pacific Deciduous First Entry Block Listing
(Cont.)**

(Values Affected by Rounding)

Source Id	Opening Num	Harv Season	Conif Charge	Detail Plan	Area (ha)	Decid (m3)	Conif (m3)	Inc Conif (m3)	Total (m3)
08504518491	5040851849	F	INC		12	2,021	0	83	2,104
08504518651	5040851865	F	INC		58	10,203	0	340	10,543
08504519821	5040851982	F	INC		37	6,181	0	238	6,418
08504520641	5040852064	F	INC		4	608	0	19	627
08504521621	5040852162	F	INC		34	5,811	0	197	6,008
08504525661	5040852566	F	INC		13	2,345	0	99	2,444
08504525821	5040852582	F	INC		20	3,126	0	335	3,461
08504525881	5040852588	F	INC		103	18,154	0	1,490	19,644
08504526161	5040852616	N	INC		7	1,229	0	54	1,283
08504527851	5040852785	N	INC		40	6,568	0	367	6,935
08504528481	5040852848	F	INC		38	6,718	0	239	6,958
08504530241	5040853024	F	INC		8	1,202	0	57	1,259
08504533191	5040853319	N	INC		6	1,123	0	40	1,163
08504533281	5040853328	N	INC		20	4,062	0	264	4,326
08504534281	5040853428	F	INC		14	3,505	0	148	3,652
08504534421	5040853442	N	INC		31	7,722	0	265	7,987
08504534591	5040853459	N	INC		35	8,610	0	520	9,130
08504534981	5040853498	N	INC		61	14,728	0	1,245	15,973
08504535241	5040853524	N	INC		1	182	0	6	188
08504535421	5040853542	F	INC		33	5,422	0	446	5,868
08504536371	5040853637	N	INC		53	12,969	0	875	13,845
08504536771	5040853677	N	INC		49	10,813	0	890	11,703
08505513871	5050851387	F	INC		52	9,176	0	389	9,565
08505524681	5050852468	F	INC		16	3,818	0	177	3,995
08505524731	5050852473	F	INC		71	15,337	0	654	15,991
08505525851	5050852585	F	INC		73	13,157	0	813	13,969
08603506261	5030860626	F	INC		3	558	0	53	611
08603506481	5030860648	F	INC		4	832	0	31	862
08604501361	5040860136	N	INC		64	16,079	0	657	16,736
08604501731	5040860173	F	INC		21	4,593	0	471	5,064
08604501771	5040860177	F	INC	U	44	10,390	0	359	10,749
08604501861	5040860186	F	INC		6	1,253	0	161	1,414
08604502441	5040860244	F	INC		3	576	0	22	598
08604502641	5040860264	F	INC		15	3,453	0	432	3,885
08604502811	5040860281	N	INC		34	7,137	0	641	7,779
08604503461	5040860346	F	INC		9	2,179	0	276	2,455
08604503581	5040860358	F	INC		40	8,761	0	875	9,636
08604504281	5040860428	F	INC		3	473	0	141	613
08604504421	5040860442	F	INC		20	4,154	0	159	4,313

**Alberta-Pacific Deciduous First Entry Block Listing
(Cont.)**

(Values Affected by Rounding)

Source Id	Opening Num	Harv Season	Conif Charge	Detail Plan	Area (ha)	Decid (m3)	Conif (m3)	Inc Conif (m3)	Total (m3)
08604504861	5040860486	F	INC		25	4,288	0	173	4,461
08604505621	5040860562	F	INC		2	359	0	18	377
08604505681	5040860568	F	INC		13	2,274	0	173	2,447
08604505821	5040860582	N	INC		11	1,815	0	78	1,893
08604509441	5040860944	F	INC		7	1,497	0	260	1,757
08604509821	5040860982	F	INC		12	1,984	0	98	2,082
Total					1,334	266,609	0	16,811	283,420

Retention Area Listing

(Values Affected by Rounding)

Retention Id	Area (ha)	Decid (m3)	Conif (m3)	Inc Conif (m3)	Total (m3)
08504519289	2	363	0	40	404
08504528589	2	276	0	27	303
08505524679	2	549	0	61	610
08604501849	4	565	0	30	595
08604503359	3	658	0	73	731
Total		12	2,412	0	232
					2,644

4. Access and Road Information

Landuse agreements will be in place prior to any third party dispositions being used.

Existing access has been utilized where possible to minimize the clearing of new Right of Way (RoW).

New access and channelled watercourse crossings will be reclaimed in order to restrict access. All terrain vehicle (ATV) access may be left to facilitate silviculture activities.

New access and channelled watercourse crossings will be reclaimed as per Section 11.3.4 of the OGRs. Road reclamation and abandonment details are listed in the AOP when the blocks and roads are scheduled.

This planning unit contains terrain with long narrow eskers/dunes that created limited decking space, as a result many blocks are ≥ 5 percent, see Section 8.

Due to issues with terrain, skid trails have been added to alleviate issues with some long skid distances.

Inter Block Roads and Crossings

Road No.	Class	Length (Km)	Construction Season	Crossing Location	Field Call	Navigability
01361	4S	2.43	Non-Frozen	0118	E	U
01731	4W	3.03	Frozen	0171	E	U
01771	4W	2.41	Frozen	0172	E	U
				0157	E	U
				0178	E	U
				0184	E	U
				0617	E	U
01861	4W	0.29	Frozen			
02441	4W	0.36	Frozen			
02641	4W	0.51	Frozen			
02811	4S	2.16	Non-Frozen	0251	E	U
				0291	E	U
				3558	E	U
				3559	E	U
				3578	E	U
03461	4W	0.25	Frozen	0317	E	U
03581	4W	0.51	Frozen			
04281	4W	0.27	Frozen			
04421	4W	0.69	Frozen			
04861	4W	2.22	Frozen	0316	E	U
				0474	E	U
				0486	SP	U
				0487	E	U
				0496	E	U
05621	4W	0.01	Frozen			
05681	4W	1.73	Frozen			
05821	4S	0.04	Non-Frozen			
06261	4W	1.02	Frozen			
06481	4W	0.52	Frozen			
09441	4W	1.26	Frozen			
09821	4W	0.61	Frozen	0488	SP	U
13281	4W	0.06	Frozen			
13871	4W	1.81	Frozen	1818	E	U
				1837	T	U
				1838	E	U
15481	4W	0.48	Frozen	1529	E	U
18491	4W	0.17	Frozen			
18651	4W	1.81	Frozen	1846	I	U
				1876	E	U
19821	4W	3.08	Frozen			
20641	4W	0.14	Frozen			
21621	4W	4.16	Frozen	2153	E	U
				2172	E	U
				2182	E	U
24681	4W	0.27	Frozen			
24731	4W	1.56	Frozen	2473	E	U
25661	4W	0.10	Frozen	2562	E	U
25821	4W	1.95	Frozen	2583	E	U
25851	4W	7.98	Frozen	2584	E	U
				2585	E	U
				2587	E	U

Inter Block Roads and Crossings (Cont.)

Road No.	Class	Length (Km)	Construction Season	Crossing Location	Field Call	Navigability
25851			Frozen	2591	E	U
			Frozen	2844	E	U
			Frozen	2975	E	U
25881	4W	4.18	Frozen			
26161	4S	0.13	Non-Frozen			
27851	4S	0.08	Non-Frozen			
28481	4W	1.51	Frozen	2868	E	U
30241	4W	0.15	Frozen			
30441	4W	0.96	Frozen	3035	E	U
30681	4W	1.08	Frozen			
31481	4S	0.05	Non-Frozen			
31641	4W	0.75	Frozen			
33191	4S	0.30	Non-Frozen			
33281	4S	0.07	Non-Frozen			
34281	4W	0.07	Frozen	3428	E	U
34421	4S	1.28	Non-Frozen			
34591	4S	0.08	Non-Frozen			
34981	4S	1.95	Non-Frozen	3484	E	U
				3485	E	U
				3539	E	U
35241	4W	0.01	Frozen			
35421	4W	2.07	Frozen	3533	E	U
				3543	E	U
36371	4S	2.06	Non-Frozen	3598	SP	U
				3638	E	U
36771	4S	1.69	Non-Frozen	0151	E	U
Total Class 4W:		50.04				
Total Class 4S:		12.32				
Total Class 4P:		10.70				

In the above table, possible “Base Info” watercourse classifications are indefinite (E), intermittent (I), perennial (P) or unmapped (UM). The possible “Field Call” channelled watercourse classifications are ephemeral (E), intermittent (I), transitional (T), small permanent (SP) or no channelled watercourse (NW). The “Navigability” rating identifies channelled watercourse as being potentially navigable (N) or potentially unnavigable (U) based on the possibility of traveling the stream with a vessel. The “Field Call” channelled watercourse classifications in the above table are based on Table 1 of the OGRs at the time, and during the conditions, when layout was conducted.

5. Non Timber Values

Public Involvement

The Public Involvement for this plan was completed during this year’s GDP review meetings.

Copies of this harvest plan are available for viewing at www.alpac.ca.

Aboriginal Consultation

The Aboriginal Consultation for this plan was completed during this year's GDP review meetings.

No concerns have been identified through the Aboriginal Consultation process to date.

Trappers

Notifications have been distributed regarding this FHP to the following Registered Fur Management Areas (RFMA) to gather feedback:

- 0998
- 2093
- 2240

No concerns have been identified through the Trapper Consultation process to date.

Guides and Outfitters

The holders of the following permits within Wildlife Management Unit (WMU) 542 have been notified of Alberta-Pacific's harvest plans within Planning Unit 085045 and their concerns have been noted below:

- 0023
- 0066
- 0163
- 0490
- 0869
- 0995
- 1060

No concerns have been identified through the Guide and Outfitter Consultation process to date.

Forest Recreation Groups

There are currently no active forest recreation groups with interests within this planning unit.

Historical Resources

Known historical resource sites have been addressed during the design of this plan. Lands on which historical resource sites are likely to occur will have been removed or checked prior to commencement of operations.

Forest Aesthetics

No concerns have been identified.

Land Use

As per a review of the Alberta Government's Digital Integrated Dispositions (DIDs) digital mapping program on May 10, 2018 and Alberta-Pacific's Landuse files from Evergreen Land Use Consulting on February 17, 2018, there are currently no dispositions within this planning unit that restrict the harvesting of timber.

Wildlife

This planning unit is not within or near Caribou Range or key Wildlife and Biodiversity Zone.

No areas of concentrated terrestrial lichens were identified during layout.

All known sensitive wildlife sites have been buffered according to section 7.7.6.2 of the OGRs. These buffers have been placed into RAs.

Access and Access Management

Existing access has been utilized where possible to minimize the clearing of new RoW.

The following policies have been implemented to mitigate access management concerns:

- Temporary road systems will be closed as soon as possible after the harvesting, hauling, and silviculture activities have been completed.

6. Spatial Harvest Sequence Summary

This planning unit has been pre-blocked in Alberta-Pacific's 2015 SHS. The table below summarizes the variance (in area) from the 2006 SHS for Alberta-Pacific harvesting.

The variance exceeds the 20% allowable by cover type for acceptance as per the OGRs. The additions were made part of Alberta-Pacific's capital road program. In order to justify construction of a capital road, harvest operations were concentrated along the Trout River Road. To offset these additions there is 1,336.8 ha of deferrals from the 2006 SHS in townships 88-06-5 and 87-06-5.

SHS Tracking

SHS Tracking	Decid. Cover Type	Sw Cover Type	Sb Cover Type	Pj Cover Type	Total Cover Type
Total SHS in Planning Unit	1,336.8	0.0	0.0	0.0	1,336.8
FHP SHS Harvest ha.	0.0	0.0	0.0	0.0	0.0
Deleted SHS ha. (reportable)	0.0	0.0	0.0	0.0	0.0
Deferred SHS ha. (reportable)	1,336.8	0.0	0.0	0.0	1,336.8
Variance % ⁽¹⁾ (reportable)	100%	0%	0%	0%	100%
Addition ha. (reportable)	1,305.2	0.0	0.0	0.0	1,305.2
Bypassed ha.	0.0	0.0	0.0	0.0	0.0
Total Harvest ha. ⁽²⁾	1,305.2	0.0	0.0	0.0	1,305.2
SHS Variance ha. (unreportable) ⁽³⁾	0.0	0.0	0.0	0.0	0.0
Additions ha. (unreportable) ⁽⁴⁾	25.2	3.0	0.2	1.6	30.0

(1) Variance % is the reportable Deleted and Deferred SHS ha. expressed as a percentage of the Total SHS in the Planning Unit.

(2) Total Harvest ha. is the sum of FHP SHS Harvest ha. and Additions ha. (reportable).

(3) SHS Variance ha. (unreportable) are the deletions and deferrals from the SHS that are less than 2.0 ha. in size.

(4) Additions ha. (unreportable) are the additions to the FHP design that are less than 2.0 ha. in size.

7. Silviculture Information

The following table outlines the initial silviculture declarations for FHP blocks within Planning Unit 085045. Cover group balanced declarations will be submitted post harvest.

Alberta-Pacific Silviculture Declarations

Source Id	Opening Num	Area (ha)	Lanbase Desig
08503530441	5030853044	19.9	ALPC0501
08503530681	5030853068	18.4	ALPC0501
08503531481	5030853148	14.7	ALPC0501
08503531641	5030853164	30.2	ALPC0501
08504513281	5040851328	3.8	ALPC0501
08504515481	5040851548	24.7	ALPC0501

Alberta-Pacific Silviculture Declarations (Cont.)

Source Id	Opening Num	Area (ha)	Lanbase Desig
08504518491	5040851849	12.1	ALPC0501
08504518651	5040851865	57.8	ALPC0501
08504519821	5040851982	36.5	ALPC0501
08504520641	5040852064	3.5	ALPC0501
08504521621	5040852162	33.9	ALPC0501
08504525661	5040852566	12.9	ALPC0501
08504525821	5040852582	20.3	ALPC0501
08504525881	5040852588	102.8	ALPC0501
08504526161	5040852616	7.4	ALPC0501
08504527851	5040852785	39.9	ALPC0501
08504528481	5040852848	37.6	ALPC0501
08504530241	5040853024	8.0	ALPC0501
08504533191	5040853319	6.3	ALPC0501
08504533281	5040853328	20.2	ALPC0501
08504534281	5040853428	13.8	ALPC0501
08504534421	5040853442	30.9	ALPC0501
08504534591	5040853459	34.5	ALPC0501
08504534981	5040853498	60.7	ALPC0501
08504535241	5040853524	1.0	ALPC0501
08504535421	5040853542	33.1	ALPC0501
08504536371	5040853637	53.1	ALPC0501
08504536771	5040853677	48.6	ALPC0501
08505513871	5050851387	51.9	ALPC0501
08505524681	5050852468	15.8	ALPC0501
08505524731	5050852473	70.8	ALPC0501
08505525851	5050852585	73.2	ALPC0501
08603506261	5030860626	2.8	ALPC0501
08603506481	5030860648	3.6	ALPC0501
08604501361	5040860136	64.3	ALPC0501
08604501731	5040860173	21.2	ALPC0501
08604501771	5040860177	44.3	ALPC0501
08604501861	5040860186	5.7	ALPC0501
08604502441	5040860244	2.5	ALPC0501
08604502641	5040860264	15.1	ALPC0501
08604502811	5040860281	34.0	ALPC0501
08604503461	5040860346	9.2	ALPC0501
08604503581	5040860358	40.0	ALPC0501
08604504281	5040860428	3.2	ALPC0501
08604504421	5040860442	20.3	ALPC0501
08604504861	5040860486	24.6	ALPC0501
08604505621	5040860562	2.1	ALPC0501

Alberta-Pacific Silviculture Declarations (Cont.)

Source Id	Opening Num	Area (ha)	Lanbase Desig
08604505681	5040860568	13.1	ALPC0501
08604505821	5040860582	10.7	ALPC0501
08604509441	5040860944	7.3	ALPC0501
08604509821	5040860982	11.8	ALPC0501

All deciduous blocks will be Leave for Natural (LFN).

8. OGRs Variances

Blocks

The following blocks border lakes less than 4.0 hectares in size and have utilized a 30m buffer:

08504534981 08604501771 08604503581

The variance exceeds the 20% allowable by cover type for acceptance as per the OGRs. Refer to Section 6 of this document for further details.

The following table identifies blocks greater than 7.0 ha that may exceed 5% road disturbance once turnabouts are constructed.

Road Percent

Source Id	% Road Class	Comments
08503530441	7	Required due to terrain
08503530681	7	Required due to terrain
08503531481	7	Narrow or Irregular Block
08503531641	7	Required due to terrain
08504518491	10	Narrow or Irregular Block
08504518651	5	Required due to terrain
08504519821	6	Required due to terrain
08504521621	6	Required due to terrain
08504525661	6	Narrow or Irregular Block
08504525821	9	Required due to terrain
08504525881	5	Required due to terrain
08504526161	8	Narrow or Irregular Block
08504527851	7	Required due to terrain
08504528481	5	Required due to terrain
08504530241	5	Narrow or Irregular Block
08504534591	7	Required due to terrain
08504534981	7	Required due to terrain
08504535421	8	Required due to terrain
08504536371	6	Required due to terrain
08505513871	5	Required due to terrain
08505524731	5	Required due to terrain