

Planning Unit 072254

Forest Harvest Plan

1. Introduction

This Forest Harvest Plan (FHP) for Planning Unit 072254 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 2016-17 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 072254 is located east of Smith.

The planning unit is located in Forest Management Unit (FMU) S23. Alberta-Pacific Forest Industries Inc. (Alberta-Pacific) has rights to D as deciduous landbase.

This planning unit falls within the Big Bend Integrated Resource Plan (IRP) area. The approved Forest Management Plan (FMP) dealt with the relevant portions of this IRP and this FHP follows the intent of the FMP.

This harvest design utilizes non-SHS stands. This plan is designed to offset the deferrals in the Crooked Creek conservation area.

Integration

As this FHP is in FMU S23 it has been provided for review to the following forest operator:

Ed Bobocel Lumber (1993) Ltd.

Alberta-Pacific has received their agreement for this plan on May 31, 2016.

Watershed

No channelled watercourses or waterbodies within this planning unit have been surveyed as fish bearing or navigable.

All unsurveyed channelled 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, and as single trees and small clumps of timber at the operators' discretion.

The northeast portion of the planning unit contains some blocks that may be visible from the Athabasca River. During the operation phase of harvest, these areas will have stand structure concentrated in visible areas for aesthetic purposes.

Debris Management

This planning unit is not within a Community FireSmart zone.

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, and/or

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

The deciduous utilization standard will be 15/10. The coniferous utilization standard will be 15/11.

Design Comments

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

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	1,000	234,470	51	9,007	243,528

The following Alberta-Pacific FHP blocks will have their coniferous volume hauled as quota (CTL) primary coniferous chargeable:

07224406221
07225411751

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)
07124431351	4240713135	NF	INC	U	46	11,324	0	398	11,722
07124431391	4240713139	NF	INC		17	4,136	0	141	4,277
07124431671	4240713167	NF	INC	U	119	27,062	0	1,236	28,298
07224405341	4240720534	NF	INC		2	516	0	14	530
07224405721	4240720572	NF	INC	U	10	2,293	0	109	2,402
07224406221	4240720622	NF	CTL		3	529	0	14	543
07224406871	4240720687	NF	INC	U	40	9,964	0	333	10,297
07224407281	4240720728	NF	INC		23	5,472	0	286	5,758
07224407331	4240720733	NF	INC		9	2,083	0	63	2,146
07224407761	4240720776	NF	INC		39	9,239	0	287	9,526
07224407911	4240720791	NF	INC		7	1,686	0	48	1,734
07224417171	4240721717	NF	INC		11	2,698	0	79	2,777
07224417281	4240721728	NF	INC		12	2,748	0	95	2,843
07224418671	4240721867	NF	INC	U	67	14,858	51	550	15,459
07224418921	4240721892	NF	INC		68	16,144	0	639	16,783
07225401341	4250720134	NF	INC		5	1,127	0	37	1,164
07225401581	4250720158	NF	INC	U	178	40,905	0	1,480	42,385
07225401631	4250720163	NF	INC		9	2,134	0	63	2,197
07225402961	4250720296	NF	INC		11	2,077	0	171	2,248
07225411751	4250721175	NF	CTL		5	1,236	0	37	1,273
07225411771	4250721177	NF	INC		16	3,950	0	207	4,157
07225411931	4250721193	NF	INC		12	2,842	0	151	2,993
07225412121	4250721212	NF	INC		3	783	0	25	808

**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)
07225412341	4250721234	NF	INC		28	7,054	0	213	7,267
07225412471	4250721247	NF	INC		2	440	0	24	464
07225412761	4250721276	NF	INC		27	5,591	0	269	5,860
07225413241	4250721324	NF	INC		32	7,933	0	244	8,177
07225413321	4250721332	NF	INC		28	6,661	0	198	6,859
07225413681	4250721368	NF	INC	U	63	14,895	0	571	15,466
07225414311	4250721431	NF	INC		1	373	0	10	383
07225414461	4250721446	NF	INC		44	10,907	0	547	11,454
07225414721	4250721472	NF	INC		42	10,813	0	351	11,164
07225414881	4250721488	NF	INC	U	22	3,997	0	117	4,114
Total					1,000	234,470	51	9,007	243,528

The blocks in the above table with a CTL for Conif Charge will be considered White Spruce cover type for coniferous volume chargability.

4. Access and Road Information

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

Main Access to Planning Unit

Township	Crossing Location	Field Call
72-25-4	0916	UM
	0918	UM
	1651	UM

Planning Unit Temporary Road Information

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 Operating Ground Rules (OGRs). Road reclamation and abandonment details are listed in the AOP when the blocks and roads are scheduled.

Main Access and Crossings

Road No.	Class	Length (Km)	Construction Season	Crossing Location	Field Call	Navigability
01341	4S	0.48	Non-Frozen			
01581	4S	5.98	Non-Frozen	0137 0173	NW E	N N
01631	4S	0.01	Non-Frozen			
02961	4S	0.15	Non-Frozen			
05341	4S	0.47	Non-Frozen			
05721	4S	0.34	Non-Frozen	0553	E	N
06221	4S	0.08	Non-Frozen			
06871	4S	1.29	Non-Frozen			
07281	4S	1.75	Non-Frozen			
07331	4S	0.01	Non-Frozen			
07761	4S	0.71	Non-Frozen	0758	E	N
07911	4S	0.35	Non-Frozen			
11771	4S	0.26	Non-Frozen			
11931	4S	1.09	Non-Frozen	1218	I	N
12121	4S	0.18	Non-Frozen			
12341	4S	1.41	Non-Frozen			
12761	4S	1.28	Non-Frozen			
13241	4S	0.19	Non-Frozen			
13321	4S	1.89	Non-Frozen	1362 1372	E E	N N
13681	4S	0.74	Non-Frozen			
14311	4S	2.11	Non-Frozen	1514 1513 1512	E E E	N N N
14461	4S	1.60	Non-Frozen			
14721	4S	1.74	Non-Frozen			
14881	4S	0.04	Non-Frozen			
17171	4S	0.57	Non-Frozen			
17281	4S	0.21	Non-Frozen	1718	E	N
18671	4S	1.77	Non-Frozen			
18921	4S	2.85	Non-Frozen			
31351	4S	0.01	Non-Frozen			
31391	4S	0.93	Non-Frozen			
31671	4S	2.74	Non-Frozen			
Total Class 4W:		0.00				
Total Class 4S:		33.19				
Total Class 4P:		0.00				

In the above table, possible “Field Call” channelled watercourse classifications are ephemeral (E), intermittent (I), transitional (T), small permanent (SP), large permanent (LP), lake < 4 ha (SL), lake ≥ 4 ha (LL) beaver pond (B), spring (S), saturated soils (SS) 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

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

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

No concerns have been identified through the public involvement process to date. The main haul from this planning unit runs adjacent to private land. Alberta-Pacific has been in contact with the landowner through the planning process.

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

The holder of Registered Fur Management Area (RFMA) 1465 has been contacted regarding harvesting activities within Planning Unit 072254. Negotiations with the trapper have been ongoing and all concerns have been addressed.

Guides and Outfitters

The holders of the following permits within Wildlife Management Unit (WMU) 510 have been notified of Alberta-Pacific's harvest plans within Planning Unit 072254:

-	0014	-	0401	-	0913	-	1026
-	0066	-	0475	-	0936	-	1159
-	0163	-	0480	-	0995	-	1203
-	0260	-	0809	-	1017	-	

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 be checked prior to commencement of operations.

Forest Aesthetics

The northeast portion of the planning unit contains some blocks that may be visible from the Athabasca River. During the operation phase of harvest, these areas will have stand structure concentrated in visible areas for aesthetic purposes.

Land Use

As per a land check using Digital Integrated Dispositions (DIDs) and the Abacus Datagraphics mapping systems (AbaData), there are currently no dispositions within this planning unit that restrict harvesting timber.

DML 150184 is currently in the application process. The application has been reviewed with the applicant and there are no concerns for timber removal. The harvest design has been created in order to accurately track timber removal from the future disposition. Blocks 07225411751, 07225412341 and 07225412471 fall within DML 150184.

Wildlife

Portions of the planning unit are within a key Wildlife and Biodiversity Zone. Operations will adhere to section 7.7.5 of the OGRs.

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.

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.

The following access control practices will also be implemented:

- If a significant delay occurs between harvesting and hauling, temporary access controls on roads will be utilized to restrict access by motorized vehicles. These controls may include the placement of logs on the road, snow berms, and/or removal of creek crossings.

- Slash rollback at strategic points (such as at the ends of the block or at the junction of the temporary road and permanent road) will be completed as soon as possible after logging to discourage access by all terrain or four wheel drive vehicles.

Since a portion of this planning unit falls within a key Wildlife and Biodiversity Zone, harvest and haul activities within in the zone are to be completed by January 15th as per the OGRs.

6. Spatial Harvest Sequence Summary

The table below summarizes the variance (in area) from the SHS, for Alberta-Pacific harvesting.

Non-SHS deciduous area has been incorporated into this harvest design to offset deferrals in the Crooked Creek Conservation area. To offset these additions there is 893.2 ha of deferrals and 93.7 of deletions from the SHS incorporated into this plan from townships 67-25-4 (61.8 ha of deferrals) and 69-24-4 (831.5 ha of deferrals and 93.7 ha of deletions).

The deciduous variance exceeds the 20% allowable by cover type for acceptance as per the OGRs.

SHS Tracking

SHS Tracking	Decid. Cover Type	Sw Cover Type	Sb Cover Type	Pj Cover Type	Total Cover Type
Total SHS in Planning Unit	987.0	0.0	0.0	0.0	987.0
FHP SHS Harvest ha.	0.0	0.0	0.0	0.0	0.0
Deleted SHS ha. (reportable)	93.7	0.0	0.0	0.0	93.7
Deferred SHS ha. (reportable)	893.3	0.0	0.0	0.0	893.3
Variance % ⁽¹⁾ (reportable)	100.0%	0.0%	0.0%	0.0%	100.0%
Addition ha. (reportable)	986.7	0.0	0.0	0.0	986.7
Bypassed ha.	0.0	0.0	0.0	0.0	0.0
Total Harvest ha. ⁽²⁾	986.7	0.0	0.0	0.0	986.7
SHS Variance ha. (unreportable) ⁽³⁾	0.0	0.0	0.0	0.0	0.0
Additions ha. (unreportable) ⁽⁴⁾	0.0	3.4	0.3	2.8	6.5

(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 072254. Cover group balanced declarations will be submitted post harvest.

Alberta-Pacific Silviculture Declarations

Source Id	Opening Num	Area (ha)	Std_ Mod	Open_ Desig	Species_ Gr	Silv_ Harv
07124431351	4240713135	46.2	D	PC	DE	UP
07124431391	4240713139	16.7	D	CC	DE	CC
07124431671	4240713167	119.2	D	PC	DE	UP
07224405341	4240720534	2.4	D	AV	DE	CC
07224405721	4240720572	10.1	D	PC	DE	UP
07224406221	4240720622	2.6	D	CC	DE	CC
07224406871	4240720687	40.4	D	PC	DE	UP
07224407281	4240720728	22.7	D	CC	DE	CC
07224407331	4240720733	9.2	D	CC	DE	CC
07224407761	4240720776	39.2	D	CC	DE	CC
07224407911	4240720791	7.2	D	CC	DE	CC
07224417171	4240721717	10.6	D	CC	DE	CC
07224417281	4240721728	12.0	D	CC	DE	CC
07224418671	4240721867	67.0	D	PC	DE	UP
07224418921	4240721892	68.4	D	CC	DE	CC
07225401341	4250720134	4.6	D	CC	DE	CC
07225401581	4250720158	177.7	D	PC	DE	UP
07225401631	4250720163	8.8	D	CC	DE	CC
07225402961	4250720296	11.3	D	CC	DE	CC
07225411751	4250721175	4.7	D	CC	DE	CC
07225411771	4250721177	15.5	D	CC	DE	CC
07225411931	4250721193	12.0	D	CC	DE	CC
07225412121	4250721212	3.0	D	CC	DE	CC
07225412341	4250721234	27.7	D	CC	DE	CC
07225412471	4250721247	2.2	D	CC	DE	CC
07225412761	4250721276	27.0	D	CC	DE	CC
07225413241	4250721324	32.2	D	CC	DE	CC
07225413321	4250721332	27.9	D	CC	DE	CC
07225413681	4250721368	63.2	D	PC	DE	UP
07225414311	4250721431	1.4	D	CC	DE	CC
07225414461	4250721446	44.0	D	CC	DE	CC
07225414721	4250721472	41.6	D	CC	DE	CC
07225414881	4250721488	21.7	D	PC	DE	UP

In the above table, the codes for “Std_Mod”, “Open_Type”, “Species_Gr” and “Silv_Harv” are as per the Alberta Regeneration Information System (ARIS) domain codes. “AV” under “Open_Desig” is not an ARIS code but is used internally for the tracking of understorey avoidance blocks. If a block contains adequate amounts of Balsam Fir, so that fir is an acceptable coniferous regeneration species, a code of FA is used in the “Species_Gr”.

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

8. OGRs Variances

Blocks

The variance exceeds the 20% allowable by cover type for acceptance as per the OGRs. Refer to Section 6 of this write-up 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
07124431391	6	Extra road required; Access to other blocks.
07124431671	5	Narrow block and/or irregular shaped block.
07224405721	5	Extra road required for understorey concerns.
07224406871	5	Extra road required; Access to other blocks.
07224407281	7	Extra road required; Access to other blocks.
07224407331	7	Narrow block and/or irregular shaped block.
07224407761	5	Extra road required due to terrain.
07224407911	7	Narrow block and/or irregular shaped block.
07224417281	6	Extra road required due to terrain.
07225401581	5	Extra road required; Access to other blocks.
07225411771	5	Narrow block and/or irregular shaped block.
07225411931	7	Extra road required; Access to other blocks.
07225412761	7	Extra road required; Access to other blocks.
07225413321	5	Extra road required; Access to other blocks.
07225413681	5	Extra road required for understorey concerns.
07225414461	5	Extra road required; Access to other blocks.

The percent road class values have been achieved by rounding the road disturbance percent to the nearest whole number.

Block 07224407761 is greater than 10 ha and contains >2 ha clumps of ≥ 600 stems/ha of White Spruce understorey. Due to terrain issues within the block limiting road placement, the road and decking areas will remove a large portion of the understorey area. This block will not have high intensity understorey protection and will be harvested using avoidance methods.

No understorey assessment will be submitted for this block.

Roads

Roads Close to Watercourses

Road No.	Grid Location	Base Info	Field Call	Distance of Watercourse From Road	Habitat Rating
02961	0295	SL	SL	150	SF
31351	3114	SL	SL	197	SF

In the above table, possible “Base Info” watercourse classifications are indefinite (E), intermittent (I), perennial (P), unmapped (UM)), lake < 4 ha (SL) or lake \geq 4 ha (LL). The possible “Field Call” watercourse classifications are intermittent (I), transitional (T), small permanent (SP), large permanent (LP), lake < 4 ha (SL), lake \geq 4 ha (LL). The “Habitat Rating” identifies watercourses surveyed as fish bearing or potentially fish bearing (SF), surveyed as non-fish bearing (SN) or unsurveyed (U). The “Field Call” 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.