

Planning Unit 078024

Forest Harvest Plan

1. Introduction

This Forest Harvest Plan (FHP) for Planning Unit 078024 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

This planning unit is bordered by the Winifred River on the north and west; and the east by the Landels River and the Forest Management Agreement (FMA) boundary. This unit is located on a large ridge of mature even aged stands. A portion of this area was previously harvested in a series of years (1999-2005). This plan is being submitted to remove the remaining timber in the area.

The planning unit is located in Forest Management Unit (FMU) L11. Alberta-Pacific has rights to D and DC as deciduous landbase and CD and C as coniferous landbase.

This harvest plan contains approximately 717 ha of stands not included in the current Spatial Harvest Sequence (SHS). The un-sequenced stands were added to the plan for the following reasons.

Firstly, the the unsequenced stands would not create a significantly large enough area to economically harvest at a future date resulting in isolation.

Secondly, this unit is located adjacent to the boundary of the Forest Management Agreement. Consequently there are no merchantable stands that can be combined with the non-sequenced stands within the unit to create an economical planning unit for future harvest. The area west of the unit does contain a significant area of merchantable stands, but the access would utilize a different route on the west side of the Winifred River. Consequently, inclusion of the non-sequenced stands within planning unit 78024 and the area west of the Winifred River would result in a construction of a river crossing of the Winifred River or re-opening access into the 078024 area thereby increasing the disturbance. Furthermore, the area west of the Winifred River is not in the new SHS (2015-2025) for the L11 Forest Management Unit.

Thirdly, this planning unit is located within Caribou Range. In an effort to reduce the impact of operations on caribou in the area and because this area had been previously harvested, harvesting

these remaining stands during this entry would result in less roading and disturbance of regenerating stands to access remaining wood and avoid a third entry into the area.

Watershed

The Winifred River and the creek along the east side of planning unit in Township 79-01-4 are fish bearing and will be buffered accordingly.

The Winifred River has been identified as a navigable water way.

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 laidout patches, and as single trees and small clumps of timber at the operators' discretion.

Stand structure has been planned (delineated) in the larger blocks to create larger residual areas. These areas are identified as Retention Areas (RAs) within the lists and on the maps. These blocks have a 9 at the end of the block number.

Debris Management

All of the blocks in this unit are outside FireSmart Community Zones as identified by Alberta Agriculture and Forestry (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.

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 identified.

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	2,758	595,952	46,020	73,165	715,137

The following Alberta-Pacific FHP blocks will have their coniferous volume hauled as FMA L11 primary coniferous chargeable:

07703434441 07801428181 07801432121 07802418551
 07802432551 07803402611 07803411241 07803411771

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)
07703428371	4030772837	NF	INC		34	7,830	466	535	8,830
07703428551	4030772855	NF	INC		11	2,463	49	202	2,713
07703429261	4030772926	F	INC		4	572	0	275	847
07703429441	4030772944	F	INC		5	781	0	375	1,156
07703429481	4030772948	NF	INC		10	2,289	60	164	2,513
07703429641	4030772964	F	INC		3	772	0	64	837
07703429681	4030772968	NF	INC		8	1,749	25	198	1,971
07703429821	4030772982	F	INC		47	11,490	122	548	12,161
07703432611	4030773261	F	INC		5	809	256	270	1,336
07703432711	4030773271	NF	INC		12	2,677	230	287	3,194
07703432761	4030773276	F	INC		5	1,285	0	59	1,344
07703433251	4030773325	F	INC		8	2,060	9	87	2,157
07703433341	4030773334	NF	INC		20	4,514	167	273	4,953
07703433631	4030773363	NF	INC		24	4,543	893	325	5,761
07703433671	4030773367	F	INC		7	1,696	0	110	1,805
07703434111	4030773411	NF	INC		52	11,280	592	1,617	13,489
07703434251	4030773425	NF	INC		14	3,146	70	373	3,589
07703434441	4030773444	NF	FMA		9	1,018	445	520	1,983
07703434861	4030773486	NF	INC		18	3,059	0	619	3,677
07703435461	4030773546	NF	INC		9	1,153	0	914	2,066
07801428181	4010782818	F	FMA		38	9,138	9	1,144	10,290

**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)
07801431371	4010783137	F	INC		39	8,581	20	363	8,965
07801432121	4010783212	F	FMA		26	6,883	0	779	7,662
07801432291	4010783229	F	INC	U	72	18,348	193	954	19,495
07801432651	4010783265	F	INC		30	8,171	0	391	8,562
07801432871	4010783287	F	INC		13	2,816	0	348	3,144
07802408461	4020780846	F	INC		25	5,447	0	621	6,068
07802416871	4020781687	F	INC		18	3,252	21	288	3,560
07802417641	4020781764	NF	FMA		27	4,408	1,378	1,427	7,213
07802418551	4020781855	NF	INC		304	65,984	7,151	12,558	85,692
07802419291	4020781929	NF	INC		21	5,288	36	348	5,671
07802420271	4020782027	NF	INC	U	14	3,288	0	140	3,428
07802420321	4020782032	NF	INC		7	1,898	0	59	1,957
07802420471	4020782047	NF	INC		29	8,157	0	293	8,451
07802420771	4020782077	NF	INC		66	16,884	216	765	17,865
07802427261	4020782726	F	INC		44	10,267	419	1,187	11,873
07802428191	4020782819	NF	INC		4	910	0	245	1,155
07802428631	4020782863	F	INC		5	1,170	0	178	1,348
07802429141	4020782914	NF	INC		22	6,056	0	429	6,485
07802429751	4020782975	NF	INC		51	11,355	1,261	757	13,373
07802430641	4020783064	NF	INC	U	180	37,199	324	4,753	42,275
07802431761	4020783176	NF	INC		8	1,934	0	508	2,441
07802431881	4020783188	NF	INC		11	2,266	0	450	2,716
07802432551	4020783255	NF	FMA		51	12,585	0	1,346	13,931
07802432821	4020783282	F	INC		2	589	0	18	607
07802433721	4020783372	NF	INC		115	30,592	73	2,840	33,506
07802434241	4020783424	NF	INC		13	3,038	0	430	3,468
07802434471	4020783447	NF	INC		20	4,325	0	870	5,194
07802434951	4020783495	NF	INC		64	17,260	0	1,338	18,598
07802435531	4020783553	NF	INC		44	10,149	0	1,517	11,666
07802436491	4020783649	F	INC		84	19,862	0	1,220	21,082
07803402261	4030780226	NF	INC		34	8,174	0	553	8,727
07803402611	4030780261	NF	INC		35	7,317	0	1,136	8,453
07803402871	4030780287	NF	INC		2	210	0	33	244
07803403331	4030780333	F	INC		100	23,485	1,566	1,662	26,713
07803403911	4030780391	F	INC		13	3,214	0	141	3,355
07803410571	4030781057	NF	FMA		22	4,594	0	1,194	5,788
07803410731	4030781073	NF	INC		5	929	0	374	1,302
07803411241	4030781124	NF	FMA		58	14,698	0	1,822	16,521
07803411291	4030781129	F	INC		3	575	0	148	723

**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)
07803411771	4030781177	NF	FMA		91	18,883	882	6,499	26,265
07803412141	4030781214	F	INC		11	2,523	0	379	2,902
07803412341	4030781234	NF	INC		13	2,597	0	406	3,003
07803413761	4030781376	F	INC		13	3,338	194	371	3,904
07803413871	4030781387	F	INC		10	2,458	0	499	2,958
07803414771	4030781477	F	INC		12	2,954	0	402	3,355
07803424571	4030782457	F	INC		15	3,147	0	834	3,981
07803424711	4030782471	F	INC		5	1,130	0	153	1,283
07803436631	4030783663	F	INC		17	3,524	0	554	4,078
07901403181	4010790318	F	INC		13	3,397	0	116	3,513
07901404261	4010790426	F	INC		20	4,536	0	1,196	5,732
07901404491	4010790449	F	INC		14	2,930	0	801	3,731
07901404651	4010790465	F	INC		8	2,060	0	83	2,143
07901405711	4010790571	F	INC		19	4,665	42	663	5,370
07901406391	4010790639	F	INC		4	555	0	148	703
07901406421	4010790642	F	INC		2	243	0	16	259
07901406551	4010790655	F	INC		12	2,398	61	253	2,713
07901406791	4010790679	F	INC		2	366	0	14	380
07901407351	4010790735	F	INC		2	265	0	9	275
07901407611	4010790761	F	INC		2	532	0	18	550
07901407771	4010790777	F	INC		7	1,599	0	160	1,758
07902402231	4020790223	F	INC		11	3,227	0	123	3,350
07902402471	4020790247	F	INC		3	617	0	266	883
07902402731	4020790273	F	INC		48	10,981	0	1,325	12,306
07902403411	4020790341	F	INC		6	1,176	0	191	1,367
07902405261	4020790526	F	INC		4	602	0	155	757
07902406231	4020790623	NF	INC		23	5,501	463	209	6,174
07902408161	4020790816	NF	INC		5	1,128	0	71	1,198
07902408211	4020790821	NF	INC		27	6,434	0	283	6,717
07902415531	4020791553	F	INC		4	344	0	259	604
07902415761	4020791576	F	INC		7	879	0	186	1,066
07902417231	4020791723	NF	INC		29	7,008	0	863	7,872
Total					2,483	568,481	17,692	70,930	657,102

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

**Alberta-Pacific Coniferous First Entry Block Listing –
White Spruce**

(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)
07802417441	4020781744	NF	FMA		10	815	1,742	0	2,557
07802420631	4020782063	NF	FMA		3	288	483	2	772
07802429281	4020782928	F	FMA		20	2,147	2,604	16	4,767
07802429581	4020782958	F	FMA		3	145	646	0	791
07802434781	4020783478	NF	FMA		5	478	666	0	1,144
07803411381	4030781138	F	FMA		5	715	680	0	1,395
07803412471	4030781247	NF	FMA		8	1,198	1,056	0	2,255
07803412671	4030781267	F	FMA		4	276	609	0	884
07803413661	4030781366	F	FMA		7	1,352	714	19	2,085
07803413691	4030781369	F	FMA		7	395	1,513	10	1,918
07803413861	4030781386	F	FMA		19	1,098	3,605	0	4,704
07803414931	4030781493	NF	FMA		7	423	933	0	1,356
07901405971	4010790597	F	FMA		25	3,605	2,648	219	6,472
07902401241	4020790124	F	FMA		5	414	901	0	1,316
07902402761	4020790276	F	FMA		10	790	1,298	9	2,097
Total					139	14,140	20,098	274	34,512

**Alberta-Pacific Coniferous First Entry Block Listing –
Black Spruce**

(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)
07802418281	4020781828	F	FMA		2	13	138	0	151
07802420731	4020782073	F	FMA		2	150	144	1	295
07802428281	4020782828	F	FMA		2	22	178	0	200
07802429961	4020782996	F	FMA		5	218	491	0	709
07802431871	4020783187	NF	FMA		4	320	258	16	594
07802433221	4020783322	NF	FMA		1	59	53	0	112
07803410941	4030781094	NF	FMA		5	62	437	0	498
07803411281	4030781128	F	FMA		3	46	197	0	243
07803412181	4030781218	F	FMA		12	553	1,412	0	1,965
07803413171	4030781317	F	FMA		16	236	1,233	132	1,602
07803413421	4030781342	F	FMA		7	71	506	0	577
07803413471	4030781347	F	FMA		21	220	1,814	0	2,034
07803414321	4030781432	NF	FMA		3	36	220	0	255
07803424481	4030782448	F	FMA		2	53	106	0	160
07901405291	4010790529	F	FMA		15	2,344	995	134	3,473
Total					98	4,404	8,182	283	12,869

Retention Area Listing
(Values Affected by Rounding)

Retention Id	Area (ha)	Decid (m3)	Conif (m3)	Inc Conif (m3)	Total (m3)
07801429889	4	755	48	80	883
07801433329	10	2,726	0	303	3,029
07802417979	5	768	0	512	1,280
07802420789	4	1,109	0	158	1,266
07803403469	0	30	0	1	31
07803411279	5	1,210	0	391	1,601
07901405119	5	1,186	0	198	1,383
07902408329	4	1,145	0	35	1,180
Total	38	8,928	48	1,678	10,654

4. Access and Road Information

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

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

All access within cutblocks will be reclaimed to discourage use by OHV's and predators in the area after operations to further reduce the impact to wildlife in the area. Road reclamation and abandonment details are listed in the AOP when the blocks and roads are scheduled.

The 4W road starting in block 07802431761 heading east will be utilized for frozen access in Townships 78-1-4 and 79-1-4. These roads will have both the 4S and 4W length listed in the table below.

Inter Block Roads and Crossings

Road No.	Class	Length (Km)	Construction Season	Crossing Location	Field Call	Navigability
02231	4W	1.21	Frozen			
02261	4S	1.44	Non-Frozen	0214	E	U
02471	4W	0.26	Frozen			
02611	4S	1.44	Non-Frozen	0276	E	U
02731	4W	2.79	Frozen			
02761	4W	0.19	Frozen			
02871	4S	0.69	Non-Frozen	0287	E	U
03181	4W	0.74	Frozen			
03331	4W	2.09	Frozen	0333	E	U
				0353	E	U
03411	4W	0.41	Frozen	0331	E	U
				0341	E	U
03911	4W	0.97	Frozen	0381	E	U
				0382	E	U
				0393	E	U
				3489	E	U
04261	4W	1.11	Frozen			
04491	4W	0.52	Frozen	0448	I	U
04651	4W	0.76	Frozen	0446	E	U
05261	4W	0.14	Frozen			
05291	4W	0.23	Frozen	0537	SP	U
05711	4W	0.47	Frozen			
05971	4W	0.88	Frozen	0546	T	U
06231	4S	0.90	Non-Frozen			

Inter Block Roads and Crossings (Cont.)

Road No.	Class	Length (Km)	Construction Season	Crossing Location	Field Call	Navigability
06391	4W	1.21	Frozen			
06421	4W	0.35	Frozen			
06551	4W	0.72	Frozen	0643	E	U
06791	4W	0.19	Frozen			
07351	4W	0.90	Frozen			
07611	4W	0.15	Frozen			
07771	4W	1.08	Frozen			
08161	4S	0.33	Non-Frozen			
08211	4S	1.97	Non-Frozen	0549	E	U
08461	4W	1.52	Frozen			
10571	4S	0.40	Non-Frozen			
10731	4S	0.24	Non-Frozen	1084	I	U
10941	4S	0.17	Non-Frozen			
11241	4S	3.33	Non-Frozen	1123	E	U
11381	4W	0.25	Frozen			
11771	4S	3.61	Non-Frozen	1148	E	U
				1179	E	U
				1238	E	U
				1248	E	U
12181	4W	0.33	Frozen	1228	E	U
12341	4S	1.37	Non-Frozen	1237	E	U
12471	4S	0.79	Non-Frozen			
13171	4W	0.84	Frozen			
13421	4W	0.10	Frozen	1331	E	U
13471	4W	1.13	Frozen	1348	E	U
13661	4W	0.27	Frozen	1366	I	U
13761	4W	0.74	Frozen			
13861	4W	1.00	Frozen	1396	E	U
14771	4W	0.10	Frozen			
15531	4W	0.57	Frozen	1565	E	U
15761	4W	4.37	Frozen			
16871	4W	1.86	Frozen	2151	LP	N
17231	4S	0.43	Non-Frozen			
17441	4S	0.70	Non-Frozen			
18281	4W	0.16	Frozen			
18551	4S	4.05	Non-Frozen			
19291	4S	1.08	Non-Frozen	1928	E	U
20271	4S	0.05	Non-Frozen			
20321	4S	0.07	Non-Frozen			
20471	4S	1.03	Non-Frozen			
20631	4S	0.80	Non-Frozen			
20731	4W	0.36	Frozen			
20771	4S	0.09	Non-Frozen			
24571	4W	1.14	Frozen	2477	E	U
24711	4W	0.90	Frozen			
27261	4W	0.09	Frozen			
28181	4W	7.46	Frozen			

Inter Block Roads and Crossings (Cont.)

Road No.	Class	Length (Km)	Construction Season	Crossing Location	Field Call	Navigability
28191	4S	0.29	Non-Frozen			
28281	4W	0.19	Frozen			
28371	4S	1.01	Non-Frozen			
28551	4S	0.61	Non-Frozen			
28631	4W	0.61	Frozen			
29141	4S	0.50	Non-Frozen			
29261	4W	0.26	Frozen			
29281	4W	0.09	Frozen			
29441	4W	0.34	Frozen			
29481	4S	0.63	Non-Frozen			
29641	4W	0.37	Frozen			
29681	4S	0.26	Non-Frozen	2979	E	U
29751	4S	2.66	Non-Frozen	2965	SP	N
29791	4S	0.09	Non-Frozen			
29821	4W	1.36	Frozen	2813	E	U
30641	4S	3.96	Non-Frozen	3032	T	U
				3072	E	U
31371	4W	3.72	Frozen			
31761	4S	0.03	Non-Frozen			
	4W	0.06	Frozen			
31871	4S	0.01	Non-Frozen			
31881	4S	0.11	Non-Frozen			
32121	4W	0.79	Frozen	2937	SP	U
				2938	SP	U
32291	4W	3.85	Frozen	0512	E	U
				0521	I	U
32551	4S	1.75	Non-Frozen	3222	SP	N
	4W	1.54	Frozen			
32611	4W	0.49	Frozen			
32651	4W	1.47	Frozen			
32711	4S	0.52	Non-Frozen			
32761	4W	0.20	Frozen			
32821	4W	0.17	Non-Frozen			
32871	4W	0.15	Frozen			
33221	4S	0.95	Non-Frozen	3292	T	U
				3312	E	U
33251	4W	0.69	Frozen			
33341	4S	0.54	Non-Frozen			
33631	4S	0.96	Non-Frozen			
33671	4W	0.49	Frozen			
33721	4S	2.50	Non-Frozen			
	4W	1.55	Frozen			
34111	4S	1.96	Non-Frozen			
34241	4S	0.38	Non-Frozen	3416	T	U
34251	4S	0.15	Non-Frozen			
34441	4S	0.80	Non-Frozen			
34471	4S	1.60	Non-Frozen	3425	E	U

Inter Block Roads and Crossings (Cont.)

Road No.	Class	Length (Km)	Construction Season	Crossing Location	Field Call	Navigability
				3435	I	U
				3448	E	U
34781	4S	0.32	Non-Frozen			
34861	4S	2.80	Non-Frozen			
34951	4S	2.58	Non-Frozen	3517	E	U
	4W	0.90	Frozen			
35461	4S	0.36	Non-Frozen			
35531	4S	1.34	Non-Frozen	3532	T	U
	4W	0.61	Frozen	3563	T	U
36491	4W	2.10	Frozen	0142	E	U
36631	4W	1.68	Frozen	3653	T	U
				3662	E	U
Total Class 4W:		64.24				
Total Class 4S:		54.65				

In the above table, possible “Field Call” channeled watercourse classifications are ephemeral (E), intermittent (I), transitional (T), small permanent (SP) or no channeled watercourse (NW). The “Navigability” rating identifies channeled watercourse as being potentially navigable (N) or potentially unnavigable (U) based on the possibility of traveling the stream with a vessel. The “Field Call” channeled 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.

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 holders of the following Registered Fur Management Areas (RFMA) have been contacted regarding harvesting activities within Planning Unit 078024 and their concerns have been noted below:

0481 0616

No concerns have been identified at the moment. Alberta-Pacific are currently in ongoing discussions with the trappers within this plan.

Guides and Outfitters

The holders of the following permits within Wildlife Management Unit (WMU) 517 have been notified of Alberta-Pacific's harvest plans within Planning Unit 078024:

0378 0541 0732 1058

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

No concerns have been identified.

Land Use

As we are harvesting the remainder of the available wood supply that is accessed by DLO992553 we will be reviewing reclamation options for this road. There has been significant interest by the

local communities in this road and as such we will be engaging with these communities to further discuss the future of this road.

Within this planning unit are oilfield roads under License of Occupation (LOC) dispositions and numerous seismic lines which are a legacy of oil and gas development in the area. This area is within a Caribou Range, as such Alberta-Pacific will be reclaiming all linear clearings contained within cutblocks harvested under the authority of this plan. Alberta-Pacific has consulted with trappers in the area and no seismic lines have been identified as being utilized by the trappers. Alberta-Pacific is in discussions with the owners of the LOC roads to determine what reclamation activities will occur on these roads.

As per a review of the Alberta Government's Digital Integrated Dispositions (DIDs) digital mapping program on January 3, 2017 and Alberta-Pacific's Landuse files from Evergreen Land Use Consulting, there are currently no dispositions within this planning unit that restrict the harvesting timber.

The following dispositions have been reviewed and contain no restrictions for timber removal at this time and do not affect the harvest design: PNT 85461299 and CNT 98655487.

Two Permanent Sample Plots (PSPs) are located at grid location 1628 of Township 78-02-4 and at grid location 1772 of Township 79-02-4. Any plots that fell within the blocks scheduled for removal have been removed from the harvest design.

Wildlife

Portions of this planning unit is within Caribou Range. Operations will adhere to the Alberta-Pacific Caribou Protection Plan submitted annually in the fall.

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.

Block 0790105291 has been buffered according to section 7.1.1 of the OGRs:

Access and Access Management

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

Continuous flow roads have been utilized in larger blocks to reduce skidding distances and cycle times. Their use outside of blocks has been minimized to control access and reduce potential wildlife disturbance.

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.

Timing

Since the planning unit falls within a Caribou Range, the timing of operations will be completed as per the Alberta-Pacific Caribou Protection Plan.

6. Spatial Harvest Sequence Summary

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

The variance exceeds the 20% allowable by cover type for acceptance as per the OGRs. The primary cause is the Jack Pine being deleted due to public concerns from Chip Prairie community.

Non-SHS area has been incorporated into this harvest design because the remaining stands would not create a significantly large enough area to economically harvest resulting in isolating the stands. To offset these additions there are 650.7 ha of deciduous and 65.1 ha of white spruce deferrals from the SHS incorporated into this plan from Township 84-7-4.

SHS Tracking

SHS Tracking	Decid. Cover Type	Sw Cover Type	Sb Cover Type	Pj Cover Type	Total Cover Type
Total SHS in Planning Unit	2,391.3	224.2	312.2	730.8	3,658.6
FHP SHS Harvest ha.	1,504.0	117.8	88.3	61.0	1,771.1
Deleted SHS ha. (reportable)	74.7	20.1	188.6	632.4	915.7
Deferred SHS ha. (reportable)	643.8	65.1	8.1	0.0	717.1
Variance % ⁽¹⁾ (reportable)	30.0%	38.0%	63.0%	86.5%	44.6%
Addition ha. (reportable)	716.7	83.4	5.5	1.7	807.2
Bypassed ha.	0.0	0.0	0.0	0.0	0.0
Total Harvest ha. ⁽²⁾	2,221.5	201.2	93.8	62.7	2,579.1
SHS Variance ha. (unreportable) ⁽³⁾	168.8	21.2	27.2	37.5	254.7
Additions ha. (unreportable) ⁽⁴⁾	99.0	30.9	11.1	3.9	144.8

(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 078024. Cover group balanced declarations will be submitted post-harvest.

Alberta-Pacific Silviculture Declarations

Source Id	Opening Num	Area (ha)	Lanbase Desig
07703428371	4030772837	33.9	ALPC0513
07703428551	4030772855	11.0	ALPC0513
07703429261	4030772926	3.7	ALPC0518
07703429441	4030772944	5.0	ALPC0518
07703429481	4030772948	10.2	ALPC0513
07703429641	4030772964	3.2	ALPC0513
07703429681	4030772968	8.4	ALPC0513
07703429821	4030772982	46.9	ALPC0513
07703432611	4030773261	5.0	ALPC0513
07703432711	4030773271	12.2	ALPC0513
07703432761	4030773276	5.2	ALPC0513
07703433251	4030773325	8.1	ALPC0513
07703433341	4030773334	19.9	ALPC0513
07703433631	4030773363	23.6	ALPC0513
07703433671	4030773367	7.5	ALPC0513
07703434111	4030773411	51.6	ALPC0513
07703434251	4030773425	14.2	ALPC0513
07703434441	4030773444	9.1	ALPC0513
07703434861	4030773486	18.4	ALPC0513
07703435461	4030773546	8.9	ALPC0518
07801428181	4010782818	38.1	ALPC0513
07801431371	4010783137	38.9	ALPC0513
07801432121	4010783212	26.2	ALPC0513
07801432291	4010783229	71.8	ALPC0513
07801432651	4010783265	30.4	ALPC0513
07801432871	4010783287	12.7	ALPC0513
07802408461	4020780846	25.0	ALPC0513
07802416871	4020781687	17.8	ALPC0513
07802417441	4020781744	9.9	ALPC0517
07802417641	4020781764	26.9	ALPC0513
07802418281	4020781828	1.7	ALPC0522
07802418551	4020781855	304.5	ALPC0513
07802419291	4020781929	21.4	ALPC0513

Alberta-Pacific Silviculture Declarations (Cont.)

Source Id	Opening Num	Area (ha)	Lanbase Desig
07802420271	4020782027	13.6	ALPC0513
07802420321	4020782032	6.7	ALPC0513
07802420471	4020782047	28.5	ALPC0513
07802420631	4020782063	3.1	ALPC0517
07802420731	4020782073	2.4	ALPC0522
07802420771	4020782077	66.5	ALPC0513
07802427261	4020782726	44.2	ALPC0513
07802428191	4020782819	4.0	ALPC0513
07802428281	4020782828	2.1	ALPC0522
07802428631	4020782863	4.8	ALPC0513
07802429141	4020782914	21.9	ALPC0513
07802429281	4020782928	20.3	ALPC0517
07802429581	4020782958	2.8	ALPC0520
07802429751	4020782975	51.2	ALPC0513
07802429961	4020782996	5.0	ALPC0517
07802430641	4020783064	180.5	ALPC0513
07802431761	4020783176	8.3	ALPC0513
07802431871	4020783187	3.9	ALPC0522
07802431881	4020783188	11.3	ALPC0513
07802432551	4020783255	50.7	ALPC0513
07802432821	4020783282	2.4	ALPC0513
07802433221	4020783322	0.8	ALPC0517
07802433721	4020783372	114.9	ALPC0513
07802434241	4020783424	12.6	ALPC0513
07802434471	4020783447	19.8	ALPC0513
07802434781	4020783478	4.6	ALPC0520
07802434951	4020783495	63.5	ALPC0513
07802435531	4020783553	43.7	ALPC0513
07802436491	4020783649	84.0	ALPC0513
07803402261	4030780226	34.1	ALPC0513
07803402611	4030780261	35.0	ALPC0513
07803402871	4030780287	2.1	ALPC0513
07803403331	4030780333	100.4	ALPC0513
07803403911	4030780391	13.3	ALPC0513
07803410571	4030781057	22.0	ALPC0513
07803410731	4030781073	5.2	ALPC0518
07803410941	4030781094	5.5	ALPC0522
07803411241	4030781124	58.3	ALPC0513
07803411281	4030781128	3.0	ALPC0522
07803411291	4030781129	2.7	ALPC0513

Alberta-Pacific Silviculture Declarations (Cont.)

Source Id	Opening Num	Area (ha)	Lanbase Desig
07803411381	4030781138	5.0	ALPC0517
07803411771	4030781177	90.7	ALPC0513
07803412141	4030781214	11.1	ALPC0513
07803412181	4030781218	11.6	ALPC0522
07803412341	4030781234	12.9	ALPC0513
07803412471	4030781247	8.5	ALPC0513
07803412671	4030781267	3.7	ALPC0520
07803413171	4030781317	15.9	ALPC0522
07803413421	4030781342	6.5	ALPC0522
07803413471	4030781347	20.7	ALPC0522
07803413661	4030781366	7.4	ALPC0517
07803413691	4030781369	7.4	ALPC0520
07803413761	4030781376	13.3	ALPC0513
07803413861	4030781386	18.5	ALPC0520
07803413871	4030781387	10.4	ALPC0513
07803414321	4030781432	2.6	ALPC0522
07803414771	4030781477	11.6	ALPC0513
07803414931	4030781493	7.1	ALPC0520
07803424481	4030782448	1.6	ALPC0522
07803424571	4030782457	15.1	ALPC0513
07803424711	4030782471	4.7	ALPC0513
07803436631	4030783663	16.8	ALPC0513
07901403181	4010790318	13.0	ALPC0513
07901404261	4010790426	19.8	ALPC0513
07901404491	4010790449	14.4	ALPC0513
07901404651	4010790465	8.4	ALPC0513
07901405291	4010790529	15.2	ALPC0517
07901405711	4010790571	18.8	ALPC0513
07901405971	4010790597	25.4	ALPC0513
07901406391	4010790639	4.0	ALPC0513
07901406421	4010790642	1.8	ALPC0513
07901406551	4010790655	12.0	ALPC0513
07901406791	4010790679	1.6	ALPC0513
07901407351	4010790735	1.6	ALPC0513
07901407611	4010790761	2.3	ALPC0513
07901407771	4010790777	6.9	ALPC0513
07902401241	4020790124	4.9	ALPC0517
07902402231	4020790223	11.4	ALPC0513
07902402471	4020790247	3.3	ALPC0513
07902402731	4020790273	47.5	ALPC0513

Alberta-Pacific Silviculture Declarations (Cont.)

Source Id	Opening Num	Area (ha)	Lanbase Desig
07902402761	4020790276	10.1	ALPC0517
07902403411	4020790341	5.8	ALPC0513
07902405261	4020790526	4.2	ALPC0513
07902406231	4020790623	23.5	ALPC0513
07902408161	4020790816	4.6	ALPC0513
07902408211	4020790821	26.6	ALPC0513
07902415531	4020791553	3.9	ALPC0518
07902415761	4020791576	6.8	ALPC0513
07902417231	4020791723	28.9	ALPC0513

All deciduous blocks will be Leave for Natural (LFN). All coniferous blocks will be treated as per Appendix 4, of the Forest Management Plan (FMP).

8. OGRs Variances

Blocks

The variance exceeds the 20% allowable by cover type for acceptance as per the OGRs. The primary cause is the Jack Pine being deleted due to public concerns from Chip Prairie community.

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
07703428371	5	Extra road required, access to other blocks.
07703428551	6	Extra road required, access to other blocks.
07703429481	5	Extra road required, access to other blocks.
07703429681	7	Extra road required, access to other blocks.
07703433251	7	Extra road required, access to other blocks.
07703433341	5	Extra road required, access to other blocks.
07703433631	6	Extra road required, access to other blocks.
07703433671	8	Narrow block and/or irregular shaped block.
07703434251	5	Narrow block and/or irregular shaped block.
07801428181	5	Extra decking space due to large timber and/or high volume.
07801432121	5	Narrow block and/or irregular shaped block.
07801432291	5	Extra road required, access to other blocks.
07801432651	6	Extra road required, access to other blocks.

Road Percent (Cont.)

Source Id	% Road Class	Comments
07801432871	5	Extra decking space due to large timber and/or high volume.
07802416871	7	Narrow block and/or irregular shaped block.
07802419291	5	Extra road required, access to other blocks.
07802420471	5	Extra road required, access to other blocks.
07802427261	5	Narrow block and/or irregular shaped block.
07802430641	5	Extra road required for understorey concerns.
07802431761	7	Limited Decking along mainline road.
07802431881	8	Limited Decking along mainline road.
07802432551	6	Extra road required, access to other blocks.
07802434241	5	Narrow block and/or irregular shaped block.
07802434471	8	Extra road required, access to other blocks.
07802434951	6	Extra road required, access to other blocks.
07802436491	5	Extra decking space due to large timber and/or high volume.
07803402261	5	Extra road required, access to other blocks.
07803403911	5	Extra road required, access to other blocks.
07803410571	6	Narrow block and/or irregular shaped block.
07803412141	10	Narrow block and/or irregular shaped block.
07803412181	7	Narrow block and/or irregular shaped block.
07803412341	7	Extra road required, access to other blocks.
07803413471	7	Extra road required, access to other blocks.
07803413691	8	Narrow block and/or irregular shaped block.
07803413761	5	Extra road required, access to other blocks.
07803413861	8	Extra road required, access to other blocks.
07803413871	6	Narrow block and/or irregular shaped block.
07803414931	8	Narrow block and/or irregular shaped block.
07803424571	6	Extra road required, access to other blocks.
07803436631	8	Narrow block and/or irregular shaped block.
07901404261	5	Extra road required, access to other blocks.
07901404491	5	Extra decking space due to large timber and/or high volume.
07901404651	6	Extra road required, access to other blocks.
07901405711	5	Narrow block and/or irregular shaped block.
07901405971	5	Extra road required, access to other blocks.
07902402231	5	Extra road required, access to other blocks.
07902402731	5	Extra road required, access to other blocks.
07902402761	10	Narrow block and/or irregular shaped block.
07902408211	6	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 07802434241 contain ≥ 600 stems/ha of White Spruce understorey but is too narrow or small for understorey protection methods, and will not have the understorey protected by avoidance or high intensity understorey protection.

Roads

The 4W road starting in block 07802431761 heading east will be utilized for frozen access in Townships 78-1-4 and 79-1-4.

Road Comments

Road No.	Class	Comments
03331	4W	Contains a favorable slope with a 15% grade for 15m at grid location 0344.
28181	4W	Contains an adverse slope with a 6% grade for 70m at grid location 3292.
35531	4S	Contains an adverse slope with a 30% grade for 10m at grid location 3532.

Roads Close to Watercourses

Road No.	Grid Location	Base Info	Field Call	Distance of Watercourse From Road	Habitat Rating
16871	1679	SP	LP	100	U
30641	3022	LP	LP	100	SF

The “Distance of Watercourse From Road” is the minimum distance allowed in Table 2 of the OGRs without AFF approval. The roads listed are within those minimum distances. Please refer to the FHP map and layout block maps for more information.

In the above table, possible “Base Info” watercourse classifications are indefinite (E), intermittent (I), perennial (P), unmapped (UM)), lake < 4 ha (SL) or lake ≥ 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 ≥ 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.