



Weyerhaeuser

Pembina 2020-2025
General Development Plan

April 24, 2020

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1 Introduction

This General Development Plan (GDP) provides a five-year projection of proposed harvest areas and production objectives for all wood supply sources being delivered to Weyerhaeuser's Drayton Valley and Edson facilities. Also included is an Access Development Plan.

This GDP is a joint submission for both Weyerhaeuser Pembina and Dale Hansen. Both the GDP and the Annual Operating Plan (AOP) are being submitted jointly, and content has been agreed to by both parties.

This GDP covers the period from May 1, 2020 to April 30, 2025 (Operating years 2020-2025).

The Weyerhaeuser Edson facility commenced operations in October of 1983. Originally owned by Pelican Spruce Mill Ltd., the complex, which manufactures oriented strand board (OSB), was purchased by Weyerhaeuser in the fall of 1988. Annual production at the mill averages 415 million square feet (3/8-inch basis) of oriented strand board (OSB). Wood volume deliveries are approximately 590,000 m³ per annum. Approximately eighty percent of the delivered volume is trembling aspen, with the remainder being balsam poplar (16%), white birch (1%) and small-diameter lodgepole pine (3%).

In 1987, Pelican Spruce Mills purchased Coniferous Timber Quotas and built a dimensional lumber sawmill-planer complex with a capacity of approximately 220 million board feet of dimensional lumber. Roundwood volume deliveries are approximately 890,000 m³ per annum.

1.1 Periodic allowable cuts and production to date

An important component of the GDP is the determination of Weyerhaeuser's Periodic Allowable Cuts. The Periodic Allowable Cuts are calculated from Forest Management Plan's approved Allowable Cuts (AAC x 5). The following tables show the calculations for each Forest Management Unit (FMU) operated by Weyerhaeuser Pembina Timberlands.

FMA 0900046

For FMA #0900046 this upcoming operating season is the year five of seven of Period #1 (May 1, 2015 – April 30, 2022). This period was extended in order to align all tenure holders in the Forest Management Unit.

Non-FMA Conifer and Deciduous Volumes

As per the FMA agreement and the approved FMP, the Company has been issued allocations for "non-FMA" conifer and deciduous volumes through DTA's and CTQ's. "Non-FMA" volume is volume that has been allocated to Weyerhaeuser but is not on the FMA area (i.e. on grazing leases). CTQR150001 was issued for the non-fma coniferous. DTAR150001 has been issued to address the non-fma deciduous volume.

Tables 1a through 1d indicate current status of period allowable cuts and production to Date for FMA#090046 and non-FMA allocations. These tables reflect the period of May 1, 2015 to April 30, 2022 for the FMA chargeable volumes, a period of May 1, 2017 to April 30, 2022 for the R15 non-FMA dispositions and a period of May 1, 2016 to April 30, 2021 the W16 DTA. The production numbers shown in the tables below represent audited and unaudited volumes to attain the total estimated production to date and used to calculate the remaining production available to Weyerhaeuser.

Dale Hansen

Business arrangements have been made to have Weyerhaeuser operate the Dale Hansen quota in the 2020/21 timber year. In order to streamline the approvals and administrative procedures, Weyerhaeuser is including the Hansen quota on both the AOP and GDP for this timber year. DHL blocks are delineated at time of planning, and licenses are established to track this volume for CTQR150006. See Table 1e for production summary

Table 1a. R15 Periodic Allowable Cut (PAC) and estimated production (combination of audited* and unaudited** volumes) for Pembina Timberlands.

Allocation	Total Conifer	Total Deciduous
R15 PAC	7,240,852	3,194,952
R15 Production to date	=4,074,702* + 898,249**	=1,262,484* + 243,323**
R15 Remaining PAC	2,267,901	1,689,145

*Audited volume 2015/2016 - 2018/2019

**Unaudited volume 2019/2020

Table 1b. R10 Periodic Allowable Cut (PAC) and estimated production (combination of audited and unaudited volumes) for Pembina Timberlands.

Allocation	Primary Conifer	Secondary Conifer	Total Conifer	Primary Deciduous	Secondary Deciduous	Total Deciduous
R10 DTA PAC	0	0	0	36,980	81,235	118,215
R10 DTA Production to date	0	0	0	0	11,329	0
R10 DTA Remaining PAC	0	0	0	36,980	69,906	109,886

*Audited volume 2015/2016 - 2018/2019

**Unaudited volume 2019/2020

Table 1c. W16 Periodic Allowable Cut (PAC) and estimated (combination of audited and unaudited volumes) for Pembina Timberlands.

Allocation	Deciduous
W16 DTA PAC	285,930
W16 DTA Production to date	0**
W16 DTA Remaining PAC	285,930

*Audited volume 2015/2016 - 2018/2019

**Unaudited volume 2019/2020

Note: Quadrant allocation as per the Millar Western 12/19/2019 FMU amalgamation letter

Table 1d. R15 non-FMA Periodic Allowable Cut (PAC) and estimated production for Pembina Timberlands

Allocation	Total Conifer	Total Deciduous
R15 non-FMA DTAR150001 PAC		173,428
R15 non-FMA DTAR150001 Production to Date		11,661*+27,628**
R15 non-FMA DTAR150001 Remaining PAC		134,139
R15 non-FMA CTQR120005		
R15 non-FMA CTQR120005 PAC	115,837	
R15 non-FMA CTQR120005 Production to Date	16,744**	
R15 non-FMA CTQR120005 Remaining PAC	99,093	

*Audited volume 2015/2016 - 2018/2019

**Unaudited volume 2019/2020

Table 1e. R15 Periodic Allowable Cut (PAC) and estimated production (combination of audited* and unaudited** volumes) for CTQR150006 (Dale Hansen).

Allocation	Total Conifer	Total Deciduous
R15 PAC	100,804	
R15 Production to date	32,870**	
R15 Remaining PAC	67,934	

*Audited volume 2015/2016 - 2018/2019

**Unaudited volume 2019/2020

1.2 Proposed Volumes to be Harvested

All deciduous timber charged against production to Weyerhaeuser from other conifer operations will be utilized at the Edson OSB plant and / or other facilities that accept deciduous as a feed supply.

Table 2a. Coniferous Planned Production.

	Wood Source	Operator	2020/21	2021/22	Remaining PAC	2022/23	2023/24	2024/25
R15	Baptiste	Weyer	70,490	98,000		70,000	70,000	70,000
	Brazeau		120,300	162,000		190,000	160,000	160,000
	Nordegg		121,900	120,000		50,000	50,000	50,000
	South Canal		38,200	80,000		90,000	80,000	80,000
	Medicine Lake		1,600	20,000		50,000	50,000	50,000
	West Country		115,000	120,000		120,000	120,000	120,000
Subtotal - Pembina South			467,490	600,000		570,000	530,000	530,000
R15	Wolf Lake	Weyer	350,000	350,000		218,740	175,800	175,800
	Edson		23,600	29,345		21,800	25,000	25,000
	Beaver Meadows		5100**	7,000**		10,000**	8,000**	8,000**
	Macmillan		45,000	50,000		50,000	50,000	50,000
Subtotal Pembina North*			418,600	429,345		290,540	250,800	250,800
Remaining PAC		2,267,901		364,428				
DTAW160002	FMU W16	Weyer	11,000*	0	0	0	0	0
CTQR150001	FMU R15	Weyer	0	5,738		5000	5000	5000
CTQR150006	FMU 15	DHL	20,000	18,000		0	0	0
Pembina Total			886,090	1,053,083		865,540	785,800	785,800

*Note: conifer belongs to Millar Western, therefore is not shown in total production summary

**Note: 100% of the conifer cut in VSA2 is CTPP, and volume produced by Weyerhaeuser will be subject to the wood swap memo (10/03/2008). To this end, conifer volume produced in VSA2 will be matched and made available in the Macmillan compartment.

Table 2b. Deciduous Planned Production.

	Wood Source	Operator	2020/21	2021/22	Remaining PAC	2022/23	2023/24	2024/25
R15	Baptiste	Weyer	41,400	19,000		17,000	20,000	20,000
	Brazeau	Weyer	41,400	45,500		47,000	55,000	55,000
		TP	5,000	5,000		5,000	5,000	5,000
	Nordegg	Weyer	11,900	23,000		0	0	0
	South Canal	Weyer	11,900	12,000		23,000	23,000	23,000
		DHL	6,000	5,000		5,000	5,000	5,000
		TP	0*	0*		0*	0*	0*
Medicine Lake	Weyer	1,000	10,000		10,000	17,000	17,000	
West Country	Weyer	2,200	3,000		1,800	1,700	1,700	
Pembina South - Totals			120,800	122,500		122,500	124,700	124,700
R15	Wolf Lake Compartment	Weyer	100,000	84,200		94,000	35,000	35,000
		ETP(BRISCO)	500	0		500	500	500
Wolf Lake Totals			100,500	84,200		94,000	35,000	35,000
R15	Edson Compartment	Weyer	118,000	109,000		100,000	100,000	100,000
		EDFOR	15,500	15,000		12,000	12,000	12,000
Edson Totals			133,500	129,000		120,000	120,000	120,000
R15	Beaver Meadow Compartment	Weyer	0	35,000		24,000	24,000	24,000
Beaver Meadows Totals			0	35,000		24,000	24,000	24,000
R15	Macmillan	Weyer	114,000	110,000		108,000	105,000	105,000
		BRL	6,700	7,000		7,000	7,000	7,000
		MWI	1,200	1,200		3,000	3,000	3,000
		ANC	20,000	16,000		9,000	9,000	9,000
Macmillan Totals			141,900	132,000		130,000	127,000	127,000
Pembina North Total			375,900	380,200		368,000	306,000	306,000
Projected Remaining PAC		1,689,145	1,192,445	689,745	689,745			
DTA R100002	FMU R15	Weyer	0	0		0	0	0

DTA R150001	FMU R15	Weyer	0	19,000		15,000	15,000	15000
DTA W160002	FMU W16	Weyer	48,000	0	237,930*	0	0	0
*DTA W160002 quadrant ends 04/2021								
Total Deciduous Production			544,700	759,630	0	517,700	445,700	445,700

1.3 Utilization Standards

For FMU R15, the TSA utilization standard for conifer is 15/11/15, while the utilization standard for deciduous is 15/10/15 or to the point of merchantability (heavy branching). For FMU W16, the utilization standard for conifer and deciduous is 15/10/15.

1.4 Indigenous Communities

In accordance with the provincial government's Alberta's Consultation Policy and updated guidelines; 'Alberta's First Nations Consultation Guidelines on Land Management and Resource Development July 28th 2014', and supplemented with 'The Government of Alberta's Proponent Guide to First Nations and Metis Settlements Consultation Procedures, December 2019', the Company has prepared and provided a variation of this document to local indigenous communities. Consultation Logs documenting feedback received from these communities will be provided to AAF prior to the end of consultation period for each community. The GDP consultation is considered to be at level II, or moderate, as per the consultation guidelines.

1.4.1 First Nation Consultation

The current First Nations being consulted include:

- Alexander First Nation
- Alexis Nakota Sioux Nation
- Aseniwuche Winewak Nation (AWN)
- Enoch Cree Nation #440
- Ermineskin Tribe
- Kehewin Cree Nation
- Louis Bull Tribe
- Montana First Nation
- O'Chiese First Nation
- Paul First Nation
- Stoney Bearspaw First Nation
- Stoney Chiniki First Nation
- Stoney Wesley First Nation
- Sunchild First Nation
- Whitefish Goodfish Lake First Nation

The Record of Consultation (ROC) Logs and the Consultation and Concerns Table (CCRT) will be submitted to AAF for adequacy review once the final Logs and Tables have been submitted to each First Nation for their review.

1.4.2 Metis Settlement Consultation

The current Metis Settlements being consulted include:

- East Prairie Metis Settlement

The Record of Consultation (ROC) Logs and the Consultation and Concerns Table (CCRT) will be submitted to AAF for adequacy review once the final Logs and Tables have been submitted to the Metis Settlement for their review.

1.4.3 Potential Impacts to First Nations and Metis

The Company recognizes that timberlands operations have the potential to impact First Nation and Metis rights or traditional uses.

It is the Company's intent to minimize any adverse impact to Treaty rights or the use of traditional sites. These known sites may include, but is not limited to, some of the following:

- Sacred Sites
- Ceremonial Sites
- Prayer Sites
- Oral History Sites
- Historical trails
- Grave Sites
- Cabin Sites
- Gathering areas for berries, medicinal plants, minerals, quarry/stone
- Camp Sites
- Culturally modified trees
- Canoe making sites
- Hunting areas
- Trapping areas
- Fishing areas

Potential impacts may include, but is not limited, to the following:

- Temporary disruption of travel on historic trails for safety reasons during active operations
- Temporary disruption of camping activities due to operations
- Temporary displacement of game during periods of increased operational activities
- Temporary disruption of use of ceremonial or spiritual sites during periods where noise may be a deterrent for use
- Temporal disruption within gathering areas until vegetation communities re-establish post-harvest

1.5 Access

All active and inactive roads are currently held by Weyerhaeuser under DLO. The active roads are regularly inspected and maintained. Inactive DLO roads are monitored on an on-going basis and maintained as required.

A five-year Access Development Map is included that provides an overview of all plan areas and identifies the year(s) in which harvesting operations will occur as per the GDP worksheets. The Map also provides an overview of all main haul roads administered by Weyerhaeuser – Pembina that are proposed, maintained or to be abandoned.

Table 5 lists all currently built DLO roads maintained by Weyerhaeuser Pembina Timberlands can be found in the Road Development Appendix at the end of this document.

1.5.1 Access Development Plan

The Access Development Plan is divided into 2 categories. The first category is intended to highlight specific roads for the purpose of First Nation and Metis settlement consultation.

The second category represent roads that are meant to “forecast corridor development allowing Alberta to facilitate the integration of access management among all resource users,” but are not intended to be constructed within the next 2 years. We are not seeking First Nations and Metis settlement consultation on these roads, but would welcome any input that is given.

Generally, the projects are listed by construction year based on the opportunity to improve the safe efficient movement of timber to the Weyerhaeuser production facilities and timber supply areas as indicated by Weyerhaeuser’s sequencing. As well, the presence of Mountain Pine Beetle in the north-west portions of the FMA have further shifted development priorities into the Moose Creek and Elk River LMU’s.

Proposed Permanent Road Construction – this describes the corridors of land within which the Company plans to build or realign permanent roads for the purpose of hauling logs to the Company’s manufacturing facilities.

The roads listed in Tables 1 and 2 have been buffered to 500 meters to produce the corridors shown on the map. Consultation on the road corridors shown on the map in this project represent the requirements to consult on future Department License of Occupation (DLO) applications or amendments. Small scale maps have been included in the package for those roads listed in the tables.

Roads listed in Table 3 are those road corridors in which Weyerhaeuser may be seeking a Water Act approval in 2019 and are therefore consulting on the Company’s wetland impacts. The wetland features are mapped on the Small-Scale road maps.

Each table below lists the roads to be built over the next three years where the route is understood in some detail. Each road is listed by name, the action to be undertaken, the year of construction or application for permanency, the length of the road in kilometers, road disposition number and current disposition owner where applicable.

Actions are defined as:

- a. Temporary to Permanent: roads that were originally constructed to be temporary, but changing requirements deem them necessary to be more permanent in nature (i.e. temporary to permanent).
- b. Upgrade existing: road upgrades that may include minor adjustments for line of sight
- c. Realignment: constructing new road to upgrade the class of the road for safety purposes
- d. New road construction: new roads for the purpose of hauling timber

Table 1. New Road Development Requiring First Nation and Metis Settlement Consultation

Map ID	ROAD_NAME	ACTION	Length (m)	Year	Proposed Class	Current Disposition	Current Disposition Owner
4	Growler (Warthog alt.)	New Construction	3573	2019	III		
6	Rapid 15 spur	New Construction	1393	2020	III		
8	Beaver Flats Road	New Construction	14492	2021	III		

Table 2. Existing Road Upgrade or Realignment Requiring First Nation and Metis Settlement Consultation

Map ID	ROAD_NAME	ACTION	Length (km)	Year	Proposed Class	Current Disposition	Current Disposition Owner
39	Blackstone Gap km10	Realign	1999	2020	III		
40	Blackstone Gap km15	Realign	3240	2020	III		

1.6 Issues impacting the GDP

1.7 Salvage

FMA salvage is applied directly to drain as it comes across the scale. Salvaged timber made available for the company may be waived due to low volumes, however, estimates of the volume waived are applied directly as drain for the company.

1.8 Integrated Operations

A critical part of planning for Weyerhaeuser operations is the integration of deciduous and coniferous wood supplies. Matching the timber resource for a given plan area to mill, operational, and administrative requirements requires substantial effort and considerable flexibility. Weyerhaeuser is committed to working with all integrated operators to maintain good relations and create win-win solutions. Weyerhaeuser accepts deciduous from other timber operators harvesting on the FMA where the deciduous is chargeable to Weyerhaeuser and attempts to purchase non-chargeable volume from the CTPP program as well. Most conifer harvested by Weyerhaeuser is sent to the Drayton Valley sawmill, with the exception of commitments to Edson Forest Products.

Weyerhaeuser shares harvesting rights on the FMA with coniferous quota holders and CTPP groups. The approved FMP details the harvesting rights on the FMA.

Harvest designs are fully integrated. Volume estimates for all merchantable species are estimated on a stand basis and applied to a given block. Therefore, a completed harvest design is the relatively best estimate for harvest scheduling and is used for AOPs where the actual block sequencing is known.

Weyerhaeuser recognizes that a significant portion of its deciduous wood supply is integrated with other conifer allocations, most notably in the Macmillan Compartment with EDFOR, ANC, BRL and MWFP, EDFOR in the Edson Compartment and EDFOR and BRISCO in the Wolf Lake Compartment. This source of deciduous is ultimately dependent on the production levels of these conifer operators. Good cooperative planning efforts have occurred between the companies through integrated harvesting operations (i.e. shared logging opportunities, shared temporary roads, etc.). On a year-to-year basis these volumes vary dramatically, and WY at times has struggled to incorporate these volumes while maintaining a healthy, vibrant logging fleet. Weyerhaeuser accepts incidental deciduous from other conifer operators operating in the south portion of R15. Arrangements have been made to accept deciduous from Tall Pine's operations. The Dale Hanson quota is being operated by Weyerhaeuser, and any deciduous produced will naturally merge with the FMA wood flow. CTPP deciduous volumes generated from the Lodgepole Community CTP program will also be accepted.

Deciduous generated by these operators is harvested under authority of the conifer operators' AOP but is chargeable to the FMA.

Weyerhaeuser will cooperate in planning the deciduous component of other quota holders' dispositions when possible in order to improve the planning accuracy of integrated sources.

Working arrangements with quota holders are negotiated annually and may include log sales, purchases or trades. In addition, hauling, road construction, and silviculture operations may also be integrated to streamline the process.

The scheduling of integrated deciduous wood supplies is a projection only, subject to change from many factors. The most critical scheduling occurs at the AOP stage. The basic priorities followed for scheduling are:

1. Deciduous and conifer salvage or timber at risk on the FMA or within a DTL or CTL.
2. Production of deciduous from Weyerhaeuser's conifer and mixed wood operations.
3. Production from other quota operations where deciduous is chargeable to the FMA PAAC.
4. Production from CTP programs on the FMA where volumes are accounted for at the beginning of the AOP year.
5. Production from Weyerhaeuser's pure D blocks

6. Production from Private land purchases

1.9 Weyerhaeuser non-FMA Embedded DTAs/CTQs

Weyerhaeuser operates as an embedded quota holder within Sundre Forest Products Inc. (West Fraser) FMA in FMU R10 (DTA R100002) and Millar Western Forest Products Ltd. FMA in the southern part of FMU W16 (DTA W160002).

DTA R100002 will generate some incidental deciduous in 2020/2021. Harvesting beyond the incidental production looks unlikely currently.

Our FMU W16 operations are limited to deciduous stands and all incidental conifer is made available to Millar Western Forest Products Ltd. Weyerhaeuser is using Millar Western's DFMP harvest sequence in the development of harvest plans and access routes in this FMU. The projected incidental conifer volume from our operations has increased slightly with Millar Western's new sequence and is ranges between 5,000 and 10,000 m³ per year.

1.10 Edson Forest Products Commitments

As per Section 19 of Weyerhaeuser's Forest Management Agreement, and subject to production control terms by mutual agreement, Weyerhaeuser must deliver or make available 43,500 m³ of conifer to Edson Forest Products and Edson Forest Products must deliver or make available 43,500 m³ of deciduous annually. Both Drayton Valley and Edson operations will deliver or make available this coniferous volume to Edson Forest Products.

1.11 Purchase Wood

Weyerhaeuser relies on purchase wood to meet its demand for logs. During this operating year the total volume proposed from industry and private purchase sources (does not include integrated sources) is approximately 200,000 m³ of deciduous volume or approximately 35% of the Edson OSB Plant requirements.

Weyerhaeuser currently has long-term log purchase and/or trade agreements with West Fraser. Weyerhaeuser also purchases non-chargeable deciduous and coniferous timber from the local Community Timber Permit Programs (CTPP). We strive to work closely with and assist the CTPP groups to ensure timely delivery to our mills.

1.12 Off-site Yards

As in the past Weyerhaeuser will continue to operate off site yards for salvage wood to facilitate wood supply needs during spring break and allow for production of short wood deciduous at central locations.

1.13 Camps

There are no permanent camps on the FMA. Temporary camps are generally used only by the planting contractors. These temporary camp locations tend to be used year to year.

1.14 Birch Deliveries

The Edson OSB plant will continue to utilize a component of birch in the manufacturing of products. Any birch sales will be performed under permit through AAF.

1.15 Planning Objectives and Issues

Our primary objective is to keep the facilities sourced with fiber that is of the highest quality at an economically feasible price. Other objectives of this plan are to:

- Schedule wood deliveries and balance quadrant AAC volumes,
- Identify the need for new or expanded licenses (in W16 and R10),
- Final Harvest Plan priorities,
- Balance seasonal wood deliveries,
- Develop road construction, maintenance and abandonment plans,
- Integrate operations with embedded timber operators,
- Identify non-timber resource values and users.

There are no exceptional issues being dealt with at this time.

1.16 Grazing

Grazing operations, whether a lease, license or permit, influence planning and harvesting operations. Grazing may impact the harvest and regeneration operations if proactive plans are not in place. To minimize the impact of each operation (harvesting and grazing) on the other, Weyerhaeuser planning staff consults with the grazing disposition holders prior to final plan submission. The two parties share information and develop a Grazing Timber Agreement (GTA). The objective of the Agreement is to develop long-term management plans for grazed lands. The AAF is to ensure sustainable production of both the timber and forage resources, while maintaining suitable habitat for wildlife. These plans may include harvest timing, grazing schedules, access control and other activities relevant to the operation. If agreement can't be reached on the GTA, either party can initiate an arbitration review by AAF. This will only occur if negotiations have reached a stalemate and is generally avoided. "Non-FMA" allocations are used to charge volumes harvested from grazing dispositions.

1.17 Fish and Wildlife

Planning and operations are carried out to protect the fish and wildlife resources. These efforts include, but are not limited to, maintaining adequate stream side buffers, proper location and construction of crossings, and regular inspection and maintenance of existing culverts and bridges. Other efforts of our operations include:

- Ensure crossing structures satisfy fish passage requirements.
- Time in-stream work to avoid resident fish migration, spawning and incubation periods.
- Identify and buffer mineral licks (locations are not shown on AOP maps).
- Limit line-of-sight by preserving roadside vegetation and/or retaining green tree patches (see below).
- Complete operations on schedule where restrictions apply (critical wildlife zones).
- Retain snags and protect understorey.
- Retain merchantable structure, on average, within harvested blocks – 4% in R15, 3% in W16
- Manage access in core grizzly bear zones.
- Undertake early summer migratory bird nest surveys to locate nesting sites that require protection during logging operations until fledglings are assumed to have left the nests

1.18 Road Use

Road use agreements are negotiated on all industry LOCs, DLOs and on County roads. Agreements may include timelines for use, limitations due to weather conditions, and regular maintenance plans. Our approach in obtaining road use agreements with other industrial users is to guarantee that the road will receive regular maintenance and, if needed, upgrading while in use.

1.19 Industrial Development

Industrial development from both oil and gas can have a large influence on our operations. These developments often determine how a harvest area will be accessed and when hauling can take place. Weyerhaeuser staff reviews proposed industrial developments and takes into consideration our

planned harvest and road construction operations. Requests are made at times to industry to modify their plans if conflicts or potential cooperative ventures arise.

1.20 Mountain Pine Beetle

Weyerhaeuser will continue to co-operate with AAF in the implementation of the Province's MPB strategies.

The FMA is situated within both the Inactive Holding, and the Leading-Edge Mountain Pine Beetle Zone as designated by AAF. The primary objective within this zone is to prevent the spread of beetles through Level 1, and where approved by AAF, Level 2 treatments.

Surveys for the detection of MPB infested stands will occur each summer/fall in cooperation with local AAF offices and forest health officers. Where appropriate, Level 2 harvest plans will be developed not only to target known MPB infestations resulting from yearly flight information but also include adjacent pine stands susceptible to spread and which offer over-wintering beetle brood the best chances for survival. It is likely that should Level 2 harvest plans be developed amendments to this GDP and the Annual Operating Plan will be required.

Level 1 control efforts were conducted by Weyerhaeuser in the winter of 2019/20, with approximately 7600 trees effectively controlled through both the FRIAA MPBP and Weyerhaeuser's FRIP fund. It is unknown at this time if level 1 control efforts will continue into 2020/21.

1.21 Aesthetics

In alignment with the Company's Environmental Management System, Weyerhaeuser planners utilize 3D view-shed models, where appropriate, to view harvest pattern effects on the landscape. These analyses are usually limited to areas of high aesthetics concerns such as areas viewed from recreational sites and tourist developments. Aesthetics concerns are addressed during the operational phase by protecting understorey and roadside vegetation, feathering block boundaries, and retaining green tree patches.

1.22 Potential Issues Identified by Weyerhaeuser or AAF related to Proposed Harvest Activities

There are ongoing discussions occurring related to planned and harvest activities adjacent to private land in the Cricks Creek Working Area. These issues were discussed at the FHP stage and with the harvesting underway at the time of writing, Weyerhaeuser anticipates these discussions will continue.

The Stoney bands have formalized a complaint against Weyerhaeuser regarding the consultation process. Government of Alberta has been engaged to arbitrate and the Records of Consultation have been submitted in accordance to the Proponent Guide.

There is an ongoing issue regarding the fence clearing as agreed in the Grazing Timber Agreement within the Swanson Working Area. Weyerhaeuser's understanding was the agreement was to clean an existing fence line, and the lease holder's understanding was the agreement was to clean a new fence line. Discussions continue with the lease holder and Government of Alberta.

Open houses

Weyerhaeuser continues to seek input from the general public for the AOP and GDP in 2020. Table 4 below provides details of planned activities to share the GDP and AOP with the General Public. Open houses were scheduled, but the mandate of the Government of Alberta, as well as Weyerhaeuser policy has resulted in the cancellation of these open houses at this time. These open

houses may be re-scheduled at such time as public events being allowed, but no times have been assigned at this point.

Other options for sharing content with the public are being explored, in lieu of the open houses. These include an increased social media campaign, mailouts to key stakeholders, and websites in which the plans can be reviewed, and questions can be raised. In addition to this, Weyerhaeuser is awaiting guidance on appropriate alternatives to the open house format from Government of Alberta.

Table 4: Schedule of public involvement in review of the AOP and GDP

Location and type of Activity	Date of Activity (if known)
Rocky Mountain House – Best Western	April 17, 4-7pm TBD
Edson - Open House, Repsol Place	April 28 4-7pm TBD
Whitcourt – Open House, Millar Centre	April 29, 4-7pm TBD
Drayton Valley – Best Western	April 18 4-7 pm TBD

Issues brought forward at the open houses will be addressed as they are brought forward. Weyerhaeuser will work with the party and AAF involved to resolve them expeditiously.

1.23 Spatial Harvest Sequence Variance

The sum of all variances to the Spatial Harvest Sequence (SHS) since May 1, 2017 is summarized in Table 4 below.

Table 4. SHS Variance to March 19, 2020

<i>Compartment</i>	<i>Sequenced Area (ha)</i>	<i>Harvested (ha)</i>	<i>Planned for Harvest (ha)</i>	<i>Remaining Area Available (ha)</i>	<i>Total SHS Variance (Deletions & Deferrals)</i>
R15 - Edson	6,222	811	932	4479	2.8%
R15 - Beaver Meadows	1330	0	129	1201	0.3%
R15 - MacMillan	7,527	1569	948	5010	1.1%
R15 - Wolf Lake	12,467	3998	3430	5039	11.2%
Total Pembina North	27,546	6,378	5,439	15,739	
R15 - Baptiste	4,371	872	639	2860	1.3%
R15 - Brazeau	8,078	2925	2935	2218	3.7%
R15 - Medicine Lake	2,853	270	736	1847	1.8%
R15 - Nordegg	5,845	2756	633	2456	6.6%
R15 - South Canal	3,507	1033	631	1843	4.1%
R15 - West Country	4,684	766	1076	2842	3.4%
Total Pembina South	29,338	8,622	6,650	14,066	
All Pembina	56,884	15,000	12,089	29,795	
W16- Groat Creek	258	0	0	258	0
W16- Hardluck Creek	469	0	146	322	2.4%
W16- Paddle River	395	0	166	229	31.4%*
W16- Robison	722	0	0	722	0
W16- Whitecourt Mtn	716	0	0	716	0
DTA W160002	2,560	0	312	2392	

* Blocks laid out under previous SHS, 100% additions in new SHS, as it was missed on pre-blocking exercise.

Appendix A: Existing Road Table

Compartment	Road Name	DLO Number	Road Status	Length (km)	Comments
Baptiste	Baptiste North Road	DLO052019	All-weather	3.4	
Baptiste	Baptiste Road	DLO941257	All-weather	4.3	
Baptiste	Chambers Creek East Road	DLO000915	All-weather	4.8	
Baptiste	Chambers Creek West Road	DLO3501	All-weather	8	
Baptiste	Grace Creek Road	DLO020856	All-weather	4.7	
Beaver Flats	Westman Trail	DLO941326	All-weather	3.5	
Blackstone	Blackstone camp access road	DLO190060	All-weather	0.1	
Blackstone	Cutoff Creek Spur	DLO061128	All-weather	1.2	
Blackstone	Donsan Creek Road	DLO031820	All-weather	5.1	
Carrot Creek	Carrot Tower Road	DLO930293	All-weather	17.7	
Carrot Creek	South Carrot Road	DLO801269	All-weather	6.4	
Carrot Creek	Wolf Lake Planters camp access	DLO122172	All-weather	0.1	
Cynthia	Easyford Road	DLO982129	Winter	20.6	
Cynthia	Paddy Creek Road	DLO951286	All-weather	4.3	
Cynthia	Sink Hole Lake Road	DLO002794	Winter	5.1	
Cynthia	Triumvirite Road	DLO740351	All-weather	11.3	
Edson	Cricks Creek Road	DLO972054	All-weather	11.8	
Edson	Deer Hill Road	DLO791493	All-weather	15.5	
Edson	Galloway Pit Road	DLO130410	All-weather	2.2	
Edson	Grande Prairie Trail	DLO840741	All-weather	3.7	
Edson	Kathleen Lake Road	DLO951637	All-weather	2	

Edson	Ladd Road	DLO840331	All-weather	7	
Edson	Old Man Creek Road	DLO011987	Winter	6.1	
Edson	Old Man Creek Road	DLO020561	Winter	2.8	
Edson	Prison Road	DLO910577	All-weather	4.5	
Edson	Rolly Hills Road	DLO021065	All-weather	1.1	
Edson	Tomcat Road	DLO5389	Stabilized	5.3	
Edson	Watson Bypass	DLO002793	Winter	1.7	
Edson	Whitefish Road	DLO890016	All-weather	15	
Edson	Whiteside Road	DLO951163	All-weather	3.2	
Elk River	620 Spur	DLO2484		0.8	Letter of clearance submitted
Marshybank	Canyon Creek Road	DLO132005	Winter	12.2	
Marshybank	Chungo Extension	DLO2488	Winter	5.8	
Moose Creek	Branch Pole Road	DLO850969	Unknown	3.8	
Moose Creek	Coyote Creek Road	DLO920317	All-weather	9.5	
Moose Creek	Coyote Creek Spur Road	DLO4309	All-weather	3	
Moose Creek	Keg Road	DLO820075	All-weather	1.5	
Moose Creek	Mile 13 Road	DLO930125	All-weather	4	
Moose Creek	Moose Creek Road	DLO940197	Winter	6	
Moose Creek	Moose Creek Road	DLO950488	Winter	11	
Moose Creek	Moose Creek Road	DLO960226	Winter	4	
Moose Creek	Moose Creek Road	DLO960338	Winter	6.2	
Moose Creek	Moose Creek Road	DLO990231	Winter	7.8	
Moose Creek	Rodney Creek Road	DLO054652	All-weather	1	
Moose Creek	Sang Lake Road	DLO910454	All-weather	4.2	
Moose Creek	Svedberg Road	DLO725	All-weather	36.2	
Moose Creek	Wolf Lake Storage Access	DLO040101	Reclaimed	0.2	Reclaimed- Pending rec cert
Nordegg River	Camp 15 Road	DLO971045	All-weather	5.7	To be reclaimed

Nordegg River	Loose Moose Road	DLO771383	Reclaimed	6.4	Reclaimed- Pending rec cert
Nordegg River	Nordegg River Road - 40-41	DLO042486	Reclaimed	1	Reclaimed- Pending rec cert
Nordegg River	Nordegg River Road 0-5.6	DLO013659	All-weather	5.6	
Nordegg River	Nordegg River Road 13.3-28	DLO900454	All-weather	14.7	
Nordegg River	Nordegg River Road 28-39.5	DLO071147	All-weather	11.5	
Nordegg River	Nordegg River Road 39.5-48.4	DLO013632	All-weather	8.9	
Nordegg River	Nordegg River Road 48.4-53	DLO051904	All-weather	4.2	
Nordegg River	Nordegg River Road 5.6-13.3	DLO043729	All-weather	7.7	
Nordegg River	NRR - 28 Spur	DLO951033	All-weather	7.1	
Nordegg River	NRR - 31 Spur (Gravel Pit Extension)	DLO003425	Reclaimed-Pending rec cert	3.1	
Nordegg River	NRR - 34 Spur	DLO000944	Reclaimed	3	Reclaimed- Pending rec cert
Nordegg River	NRR - 36 Spur	DLO950171	All-weather	5.5	Transfer of ownership in progress
Nordegg River	NRR - 38 Spur	DLO950172	Partial Reclamation	6.8	
Nordegg River	NRR - 40 Spur	DLO000969	All-weather	8.6	
Nordegg River	NRR - 40-1 Spur	DLO001165	All-weather	2.6	
Nordegg River	NRR - 42 Spur	DLO120218	All- weather	3.4	
Nordegg River	NRR - 44 Spur	DLO090436	Partial Reclamation	2.8	
Nordegg River	NRR - Access to 34 Gravel Pit	DLO981700	All-weather	0.6	
Nordegg River	South Reservoir Road	DLO870066	To be cancelled		To be cancelled
Nordegg River	Wawa Creek Road	DLO020572	All-weather	4.6	
Nordegg River	Wawa Creek Road	DLO771370	All-weather	3	
Nordegg River	Wawa Creek West Road	DLO031772	All-weather/Temp Stabilized	10.3	Will be temporarily stabilized following operations
O'Chiese	Boundary Road	DLO920227	All-weather	13.7	
O'Chiese	Boundary camp access road	DLO160168	All-weather	0.11	

O'Chiese	Boundary Spur Road	DLO941481	All-weather	2.9	
O'Chiese	Doc's Road	DLO880912	All-weather	4.3	
O'Chiese	Harlech	DLO131046	All-weather	5.6	
O'Chiese	Mastiff Road	DLO170120	All-weather	4.8	
O'Chiese	Pug Road	DLO170123	All-weather	0.5	
O'Chiese	Rapid Creek Road	DLO021251	All-weather	20.5	
O'Chiese	Rapid Creek Road	DLO040018	All-weather	12.3	
O'Chiese	Sylvester Road	DLO040909	All-weather	8.2	
O'Chiese	Yorky Road	DLO120219	All-weather	1	
R2 FMU		DLO870886	Reclaimed	4.2	Reclaimed- Pending rec cert
R4 FMU	South Sabre	DLO951394	Never built		No entry submitted
Sand Creek	Lodgepole yard access road	DLO160167	All-weather	0.05	
Sand Creek	Sand Creek North	DLO900479	All-weather	2.2	
Sand Creek	Sand Creek South	DLO850752	All-weather	5.3	
Wolf Lake	A&V Road	DLO901480	Winter	2	
W16 DTA	Anselmo Road	DLO952227	Winter	5.2	
W16 DTA	Bannister Road	DLO950489	Winter	0.5	
W16 DTA	Big Rock Road	DLO4230	All-weather	3.5	
W16 DTA	Groat Creek Road	DLO870679	All-weather	10.1	Transfer of ownership in progress
W16 DTA	Hard Luck Trail	DLO850647	All-weather	2.7	
W16 DTA	Hard Luck Trail	DLO980242	All-weather	14.1	
W16 DTA	Hard Luck Trail	DLO992334	Temp Stabilized	7.9	
W16 DTA	Hard Luck Trail East	DLO011016	Winter	4	
W16 DTA	Paddle Road	DLO920843	Winter	14.3	
W16 DTA	Westside Road	DLO960301	Winter	9.4	
Willesden	Rose Creek Road	DLO910428	All-weather	14.3	

Appendix B: Table of Temporary Roads over 2 years old

Compartment	roadName	Road id	Length (km)	Status
Nordegg	INT_5130432008	94602	2.6	
W16 (Quota)	INT_5110572458	91622	0.1	
O'Chiese	INT_5120432615	81832	4.6	
Nordegg	INT_5130433435	81821	0.1	
Moose Creek	INT_5180501164A	89787	0.8	
Edson	INT_5190533497	87063	0.2	Reclaim in summer 2020
Edson	INT_5190533496	87502	1.7	Reclaim in summer 2020
Edson	INT_5190533496	87501	0.2	Reclaim in summer 2020
Edson	INT_5190533496	87049	1.4	Reclaim in summer 2020
Edson	INT_5160550413	82892	0.7	Reclaim in summer 2020
Cynthia	INT_5100511404	79755	0.3	
Blackstone	INT_5160421738	88564	0.1	
Baptiste	INT_5100400801	83620	1.6	