5.3 MAI Targets

As per the current Regeneration Standard of Alberta (AAF 2017a):

"Development of MAI standards are a mandatory component of the forest management planning process. Once developed and approved, the MAI standards will apply to all timber disposition operations covered by the Forest Management Plan (FMP). Should multiple Timber Supply Analyses (TSA) be included in the FMP (i.e., a TSA run for each FMU within an FMA), then the MAI standards shall reflect each TSA ... The number of MAI standards shall reflect the number of regenerated yield strata assumed in the FMP to a minimum of the Base 10 strata, as outlined in the FMP Standard."

Since Weyerhaeuser's timber supply will be analyzed as one FMU (G16), culmination mean annual increment (MAI) targets were developed specific to FMU G16.

- The D_CD yield stratum is managed for deciduous yield, and therefore deciduous culmination was used to select MAI targets.

- All coniferous and mixedwood strata are managed primarily for coniferous yield, and therefore coniferous culmination was used to select MAI targets.

MAI targets are provided for Weyerhaeuser and quota holders in Table 5-3. Note that except for the D_CD and C_SB strata, all targets were derived by recompiling the RSA performance survey based MGD yield curves at 15/10/30/TL RSA utilization standard for both the conifer and deciduous components.

We used the Provincial Utilization Standard Conversion Tool (Stadt *et al.* 2014) to convert the FMP utilization to the RSA standard for the Foothills natural region for the D_CD, C_SB and Sw_G351p1 regenerating strata.

Table 5-3. Culmination MAI targets for FMU G16 (Approval Condition 8.1/b).

Silviculture	Yield Group	GoA Base 10	Yield Type	Culm. Age	Culmination MAI (m³/ha/yr)		
					Conifer	**Deciduous**	**Total**
Basic	D_CD	Hw	DEC	70	0.14	2.89	3.03
	C_SB	Sb	CON	180	1.01	0.00	1.01
	Pl	Pl	CON	100	3.18	0.42	3.60
	HwPl	HwPl	CON	100	2.63	1.33	3.96
	PlHw	PlHw	CON	100	2.63	1.33	3.96
	Sw	Sw	CON	110	2.83	0.40	3.23
	HwSx	HwSx	CON	100	2.53	1.24	3.77
	SwHw	SwHw	CON	100	2.53	1.24	3.77
Genetic	Pl_G147p2	Pl	CON	100	3.41	0.42	3.83
	Pl_G303	Pl	CON	100	3.26	0.42	3.68
	Pl_G804	Pl	CON	100	3.53	0.42	3.95
	Sw_G351p1	Sw	CON	100	2.91	0.45	3.36
	Sw_G351p2	Sw	CON	110	3.02	0.40	3.42

5.4 Regeneration Transitions

Weyerhaeuser's planned silviculture transitions to the 6 basic and 5 genetic regenerating strata for areas harvested after the effective date of the plan are presented in Table 5-4.

Table 5-4. Regeneration transitions for FMU G16 (Post-AIP + Approval Condition 8.1/c).

Yield Type		Current Yield Group	Net Area (ha)	(%)	Regenerate To Basic	Regenerate To Genetic
N A T U R A L	NAT	D_AB	51,386	6.2	D_CD	
	NAT	D_CD	134,420	16.2	D_CD	
	NAT	D_US	38,398	4.6	SwHw	
	NAT	DC_PL	7,943	1.0	HwPl	
	NAT	DC_SX	39,042	4.7	HwSx	
	NAT	CD_SX	35,071	4.2	SwHw	
	NAT	CD_PL	10,634	1.3	PlHw	
	NAT	C_SW_AB	58,800	7.1	Sw	Sw_G351p1, Sw_G351p2
	NAT	C_SW_CD	17,495	2.1	Sw	Sw_G351p1, Sw_G351p2
	NAT	C_SWOC	35,795	4.3	Sw	Sw_G351p1, Sw_G351p2
	NAT	C_PL_AB	34,320	4.1	Pl	Pl_G147p2, Pl_G804, Pl_G303
	NAT	C_PL_CD	57,348	6.9	Pl	Pl_G147p2, Pl_G804, Pl_G303
	NAT	C_PLOC	69,546	8.4	Pl	Pl_G147p2, Pl_G804, Pl_G303
	NAT	C_SB	17,023	2.1	C_SB	
P R E - 1 9 9 1 M A N A G E D	M91	PL	21,779	2.6	Pl	Pl_G147p2, Pl_G804, Pl_G303
	M91	SW	3,699	0.4	Sw	Sw_G351p2
	M91	CD_PL/DC_PL	5,929	0.7	PlHw	
	M91	CD_SX/DC_SX	3,331	0.4	SwHw	
	M91	D_AB	7,747	0.9	D_CD	
	M91	D_CD	4,844	0.6	D_CD	
	M91	D_US	5,366	0.6	SwHw	
	M91	C_SB	240	0.0	C_SB	
P O S T - 1 9 9 1 M A N A G E D	MGD	Hw	86	0.0	D_CD	
	MGD	HwPl	719	0.1	PlHw	
	MGD	HwSx	1,566	0.2	SwHw	
	MGD	PlHw	5,974	0.7	PlHw	
	MGD	SwHw	4,565	0.6	SwHw	
	MGD	Pl	73,864	8.9	Pl	Pl_G147p2, Pl_G804, Pl_G303
	MGD	Sw	18,715	2.3	Sw	Sw_G351p2
	MGD	Sb	24	0.0	C_SB	
	MGD	C_SB	972	0.1	C_SB	
	MGD	D_CD	41,393	5.0	D_CD	
	MGD	Pl_G147p1	17,398	2.1		Pl_G147p2, Pl_G804
	MGD	Sw_G351p1	4,402	0.5		Sw_G351p2

Genetic:

Tree Improvement, genetic stock planted in the B1, B2 (Pl) or G1(Sw) seed zones in Weyerhaeuser openings. Must be conifer declared openings based on caps and deployment schedules in the TSA.

Approval Condition 8.1 - Deciduous leading mixedwood transition:

NAT DC_PL to regenerate to HwPl and NAT DC_SX to regenerate to HwSx Basic Silviculture