

Rocky Mountain Natural Resource District FSP Stacking Standards**

ROCKY MT	NAME	BGC	Regeneration Guide							Free Growing Guide					Post Spacing		
STOCKING		Classification	Species		Stocking(i)		Min	Regen	Assessment		Min. Height(ii)		Tree Height	Min	Max*1		
STANDARD		Zone/SZ	Series	Conifer		Target MIN paMIN p	Intertree	Delay	Earliest	Latest	Species	Ht	To Brush				
ID NUMBER				Preferred (p)	Acceptable (a)	(well-spaced/ha)	Distance	(Max yrs)	(yrs)	(yrs)	(m)	(min%)					
1001782	UWROF1	ESSFdk	01	PI Sx Fd ^{1,2} Lw ^{1,2}	Bl ^{1,2}	1200	700	600	2.0	7	-	20	PI, Lw	1.6	125	1200	3000-4000
											Fd	1.0					
											Others	0.8					
1001786		ESSFdk	02	Fd ^{3,4} Lw ^{3,4} PI	Sx Pa ^{3,4} Bl ^{1,2}	1000	500	400	2.0	7	-	20	PI,Lw	1.2	125	1200	3000-4000
											Fd	0.8					
											Others	0.6					
1001783		ESSFdk	02	Fd ^{3,4} Lw ^{3,4} PI	Sx Pa ^{3,4} Bl	76 ^{U10}	76 ^{U10}	U20	2.0 ^{1,4}	-	-	20	PI,Lw	1.2	125	76	400 ^{U14}
											Fd	0.8					
											Others	0.6					
1001784		ESSFdk	03	PI Fd ^{1,4} Lw ^{1,4} Sx	Bl ^{1,2}	1200	700	600	2.0	7	-	20	PI, Lw	1.6	125	1200	3000-4000
											Fd	1.0					
											Others	0.8					
1001787	ESSFdk	04	PI Sx Fd ^{1,4} Lw ^{1,4}	Bl ^{1,2} Pa ^{3,4}	1200	700	600	2.0	7	-	20	PI, Lw	1.6	125	1200	3000-4000	
										Fd	1.0						
										Others	0.8						
1001788	ESSFdk	05	Bl ^{3,4} PI Sx ^{3,4}		1200	700	600	2.0	4	-	20	PI	1.6	125	1200	3000-4000	
										Others	0.8						
1001789	ESSFdk	06	Bl ^{3,4} PI Sx ^{3,4}		1200	700	600	2.0	4	-	20	PI	1.6	125	1200	3000-4000	
										Others	0.8						
	ESSFdk	07	non-forested		-	-	-	-	-	-	-	-	-				
1001790		ESSFwm	01	Bl Sx Fd ^{1,4} Lw ^{1,4}	PI ^{3,4,70}	1200	700	600	2.0	4	-	20	Lw, PI	2.0	125	1200	3000-4000
											Others	1.0					
1001791		ESSFwm	02	Sx PI ^{3,4}	Bl ^{1,2}	1200	700	600	2.0	7	-	20	PI	2.0	125	1200	3000-4000
											Others	1.0					
1001792		ESSFwm	03	Fd ^{3,4} Lw ^{3,4} Sx	Bl ^{1,2} PI ^{3,4,70} Pw ^{3,31,32,49}	1200	700	600	2.0	4	-	20	PI, Pw	2.0	125	1200	3000-4000
											Lw	2.0					
											Fd	1.4					
											Others	1.0					
1001793	ESSFwm	04	Bl Sx	PI ^{3,4}	1200	700	600	2.0	4	-	20	PI	2.0	125	1200	3000-4000	
										Others	1.0						

1,2 etc - see "Footnotes"

*Avoid logging

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Version 3.0; March 20, 2014

1 of 8

Rocky Mountain Natural Resource District FSP Stocking Standards**

ROCKY MT	NAME	BGC		Regeneration Guide							Free Growing Guide					Post Spacing						
STOCKING		Classification		Species		Stocking(i)			Min	Regen	Assessment		Min. Height(ii)		Tree Height	Min	Max*1					
STANDARD		Zone/SZ	Series	Conifer		Target MIN paMIN p			Intertree	Delay	Earliest	Latest	Species	Ht	To Brush							
ID NUMBER				Preferred (p)	Acceptable (a)	(well-spaced/ha)												Distance	(Max yrs)	(yrs)	(yrs)	(m)
1002925		ESSFdm	01	Sx	PI	Bl ^{11,18}	Lw ^{14,32,76}	1200	700	600	2.0	4	-	20	PI	1.6	125	1200	3000-4000			
							Fd ¹⁴ Hw ¹⁴								Others	0.8						
1002926		ESSFdm	02		PI	Sx ^{76,32,10}	Bl ⁷⁸	1000	500	400	2.0	4	-	20	PI	1.6	125	1000	3000-4000			
							Fd ¹⁴ Lw ^{14,76}								Others	0.8						
1002927		ESSFdm	03		PI	Sx ⁷⁶	Bl ^{11,18}	Fd ¹⁴	1200	700	600	2.0	4	-	20	PI	1.6	125	1200	3000-4000		
							Hw ¹⁴ Lw ^{14,76}								Others	0.8						
1002928		ESSFdm	04	Sx	PI	Bl ^{11,18}	Hw ^{14,32}	1200	700	600	2.0	4	-	20	PI	1.6	125	1200	3000-4000			
															Others	0.8						
1002929		ESSFdm	05		Sx	Bl ^{11,18}	Hw ^{14,32}	PI	1200	700	600	2.0	4	-	20	All	0.8	125	1200	3000-4000		
1002930		ESSFdm	06	Sx	Bl	PI ¹		1000	500	400	2.0	4	-	20	PI	1.6	125	1000	3000-4000			
															Others	0.8						
1001794		ICHdw	01a	Fd ⁵⁸	Lw	Py	Bg ²⁸	PI	Cw	Sx ^{10,13}	1200	700	600	2.0	7	-	20	PI, Pw	2.0	150	1200	3000-4000
						Pw ^{31,49,57}												Lw	2.0			
																		Fd	1.4			
																		Others	1.0			
1001795		ICHdw	01b	Fd ⁵⁸	Lw	PI	Py ^{3,14}				1200	700	600	2.0	7	-	20	PI, Pw	2.0	150	1200	3000-4000
						Cw	Pw ^{31,49,57}	Sx ^{10,13}										Lw	2.0			
																		Fd	1.4			
																		Others	1.0			
1001796		ICHdw	02	Fd ⁵⁸	Lw	Py			Cw		1000	500	400	2.0	7	-	20	PI, Lw	1.4	150	1000	3000-4000
																		Fd	1.0			
																		Others	0.8			
1001797		ICHdw	03	Fd ^{1,32,58}	Lw ^{1,32}	Sx	Bg ^{32,58}	Hw ³²	PI ¹		1200	700	600	2.0	4	-	20	PI, Pw	2.0	150	1200	3000-4000
						Cw ³²	Pw ^{31,49,57}											Lw	2.0			
																		Fd	1.4			
																		Others	1.0			
1001798		ICHdw	04	Cw ³²	Sx	Fd ^{1,32,58}	Bg ^{1,32}	PI ¹			1200	700	600	2.0	4	-	20	PI, Pw	2.0	150	1200	3000-4000
						Lw ^{1,32}	Pw ^{1,31,49,57}											Lw	2.0			
																		Fd	1.4			
																		Others	1.0			

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Version 3.0; March 20, 2014

2 of 8

Rocky Mountain Natural Resource District FSP Stocking Standards**

ROCKY MT	NAME	BGC	Regeneration Guide								Free Growing Guide					Post Spacing	
STOCKING		Classification	Species		Stocking(i)			Min	Regen	Assessment		Min. Height(ii)		Tree Height	Min	Max*1	
STANDARD			Conifer		Target MIN paMIN p			Intertree	Delay	Earliest	Latest	Species	Ht	To Brush			
ID NUMBER			Zone/SZ	Series	Preferred (p)	Acceptable (a)	(well-spaced/ha)										Distance
1001800	UWROF2	ICHmk1	01	Fd ^{9,14,32} Lw ^{9,14,32} PI Sx ^{10,13}	Bl ^{10,13} Cw ^{10,13,32}	1200	700	600	2.0	7	-	20	PI, Lw	2.0	150	1200	3000-4000
													Fd	1.4			
													Others	1.0			
1001801		ICHmk1	02	Fd PI	Sx ^{10,13} Py ^{9,14}	U8	76 ^{U10}	U20	2.0 ¹⁴	-		20	PI	1.4	125	76	400 ^{U14}
													Fd	1.0			
													Others	0.8			
1001802		ICHmk1	02	Fd PI	Sx ^{10,13} Py ^{9,14}	600	400	400	2.0	7	-	20	PI	1.4	150	600	1000
													Fd	1.0			
													Others	0.8			
1001803		ICHmk1	03	Fd Lw PI Sx ^{10,13}	Cw ^{10,13} Py ^{9,14}	1000	500	400	2.0	7	-	20	PI, Lw	1.4	150	1000	3000-4000
													Fd	1.0			
													Others	0.8			
1001804	ICHmk1	04	Fd ³² Lw ³² PI Sx ^{10,13}	Cw ^{10,13} Py ^{9,14} Bl ¹³	1200	700	600	2.0	7	-	20	PI, Lw	2.0	150	1200	3000-4000	
												Fd	1.4				
												Others	1.0				
1001805	ICHmk1	05	PI Sx Fd ^{9,14,32}	Bl Cw ³²	1200	700	600	2.0	4	-	20	PI, Lw	2.0	150	1200	3000-4000	
				Lw ^{9,14,32}								Fd	1.4				
												Others	1.0				
1001806	ICHmk1	06	PI Sx Fd ^{9,14,32}	Bl Lw ^{9,14,32} Cw ³²	1200	700	600	2.0	4	-	20	PI, Lw	2.0	150	1200	3000-4000	
												Fd	1.4				
												Others	1.0				
1001807	ICHmk1	07	PI ¹ Sx ¹ Fd ^{1,32}	Bl ¹ Cw ³²	1000	500	400	2.0	4	-	20	PI, Lw	1.4	150	1200	3000-4000	
				Lw ^{1,32}								Fd	1.0				
												Others	0.8				

1,2 etc - see "Footnotes"

*Avoid logging

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Version 3.0; March 20, 2014

3 of 8

Rocky Mountain Natural Resource District FSP Stocking Standards**

ROCKY MT	NAME	BGC	Regeneration Guide							Free Growing Guide					Post Spacing		
STOCKING		Classification	Species		Stocking(i)		Min	Regen	Assessment		Min. Height(ii)		Tree Height	Min	Max*1		
STANDARD		Zone/SZ	Series	Conifer		Target MIN	pa	MIN p	Intertree	Delay	Earliest	Latest	Species	Ht	To Brush		
ID NUMBER				Preferred (p)	Acceptable (a)	(well-spaced/ha)	Distance	(Max yrs)									
1001808		ICHmw1	01	Fd PI Cw	Hw BI	1200	700	600	2.0	4	-	20	PI, Pw	2.0	150	1200	3000-4000
				Pw ^{31,49}	Sx								Lw	2.0			
				Lw ^{23,11}									Fd	1.4			
													Others	1.0			
1001809		ICHmw1	02	Fd Pw ^{31,49}	PI ⁴⁹ Cw ²⁵ Sx ²⁵	1200	700	600	2.0	7	-	20	PI, Pw	2.0	150	1200	3000-4000
													Lw	2.0			
													Fd	1.4			
													Others	1.0			
1001810		ICHmw1	03	Fd PI Pw ^{31,49}	BI ²⁵ Cw ²⁵ Hw	1200	700	600	2.0	7	-	20	PI, Pw	2.0	150	1200	3000-4000
				Sx ^{10,13,25}									Lw	2.0			
				Lw ^{23,11}									Fd	1.4			
													Others	1.0			
1001811		ICHmw1	04	Fd PI Pw ^{31,49}	BI ²⁵ Cw ²⁵ Sx ²⁵	1200	700	600	2.0	7	-	20	PI, Pw	2.0	150	1200	3000-4000
				Lw ^{23,11}									Lw	2.0			
													Fd	1.4			
													Others	1.0			
1001812		ICHmw1	05	Cw ³² Fd ^{1,32} Hw ³²	BI PI	1200	700	600	2.0	4	-	20	PI, Pw	2.0	150	1200	3000-4000
				Pw ^{1,32,49}									Fd	1.4			
													Others	1.0			
1001813		ICHmw1	06	BI Cw Fd ^{9,14} Hw	PI	1200	700	600	2.0	4	-	20	PI, Pw	2.0	150	1200	3000-4000
				Sx Pw ^{31,49}									Lw	2.0			
													Fd	1.4			
													Others	1.0			
1001814		ICHmw1	07	Cw ³² Hw ³²	BI PI	1000	500	400	2.0	4	-	20	PI	1.4	150	1000	3000-4000
				Sx Fd ^{1,14,32}									Fd	1.0			
													Others	0.8			

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Version 3.0; March 20, 2014

4 of 8

Rocky Mountain Natural Resource District FSP Stocking Standards**

ROCKY MT	NAME	BGC	Regeneration Guide							Free Growing Guide					Post Spacing			
STOCKING		Classification	Species		Stocking(i)			Min	Regen	Assessment		Min. Height(ii)		Tree Height	Min	Max*1		
STANDARD			Conifer		Target MIN paMIN p			Intertree	Delay	Earliest	Latest	Species	Ht	To Brush				
ID NUMBER			Zone/SZ	Series	Preferred (p)	Acceptable (a)	(well-spaced/ha)										Distance	(Max yrs)
1035620		ICHdm	01	Fd ⁵⁸ Lw PI	Pw ^{31,57} Hw ¹⁰	1200	700	600	2.0	4	-	20	PI, Pw	2.0	150	1200	3000-4000	
				Sx ¹⁰	Cw ¹⁰ BI ¹³								Lw	2.0				
													Fd	1.4				
													Others	1.0				
			ICHdm	02	non-forested		-	-	-	-	-	-	-	-	-			
1035621			ICHdm	03	Fd ⁵⁸ Lw PI	Cw ¹⁰ BI ¹⁰	1200	700	600	2.0	7	-	20	PI, Pw	2.0	150	1200	3000-4000
						Sx ^{10,13}								Lw	2.0			
														Fd	1.4			
														Others	1.0			
1035622			ICHdm	04	Fd ^{58,32} Lw ³² Sx	Pw ^{31,57} Hw	1200	700	600	2.0	7	-	20	PI, Pw	2.0	150	1200	3000-4000
					PI Cw ³²	BI								Lw	2.0			
														Fd	1.4			
													Others	1.0				
1035623		ICHdm	05	Cw ³² Hw ³² Sx	BI PI Fd ^{32,1}	1200	700	600	2.0	4	-	20	PI, Pw	2.0	150	1200	3000-4000	
					Lw ^{32,1}								Lw	2.0				
													Fd	1.4				
													Others	1.0				
1035624		ICHdm	06	Cw ³² Sx Hw ³²	BI PI ¹² Fd ^{32,1}	1200	700	600	2.0	4	-	20	PI, Pw	2.0	150	1200	3000-4000	
					Lw ^{32,1}								Lw	2.0				
													Fd	1.4				
													Others	1.0				
1001822	UWRMF1	IDFdm2	01	Fd ³² Lw ³² Py	PI ^{10,13,73}	1000	500	400	2.0	7	-	20	PI, Lw	1.0	125	500	2000 ^{U14}	
		Note ^{U18}											Fd	0.8				
													Py	0.6				
1001823	UWROF3	IDFdm2	01	Fd ³² Lw ³² Py	PI ^{10,13}	U8	76 ^{U10}	U20	2.0 ¹⁴	-	-	20	PI, Lw	0.5	125	76	400 ^{U14}	
		Note ^{U19}											Fd	0.5				
													Py	0.5				
1001824	UWROR1	IDFdm2	02	Fd ²⁷ Py Lw ^{10,13}		U9	0 ^{U10}	U20	2.0 ¹⁴	-	-	20	Lw,Fd,Py	0.5	125	0	75 ^{U14}	
1001825	UWROR2	IDFdm2	03	Fd ²⁷ Py Lw ^{10,13}	PI ^{10,13}	U9	0 ^{U10}	U20	2.0 ¹⁴	-	-	20	PI, Lw	0.5	125	0	75 ^{U14}	
													Fd	0.5				
													Py	0.5				

1,2 etc - see "Footnotes"

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Version 3.0; March 20, 2014

5 of 8

Rocky Mountain Natural Resource District FSP Stocking Standards**

ROCKY MT	NAME	BGC		Regeneration Guide							Free Growing Guide					Post Spacing	
STOCKING		Classification	Species	Stocking(i)			Min	Regen	Assessment		Min. Height(ii)		Tree Height	Min	Max*1		
STANDARD				Conifer	Target MIN	pa			MIN p	Intertree	Delay	Earliest				Latest	Species
ID NUMBER				Zone/SZ	Series	Preferred (p)	Acceptable (a)	(well-spaced/ha)	Distance				(Max yrs)	(yrs)	(yrs)		
1001826	UWRMF2	IDFdm2	04	Fd ^{3Z} Lw ^{3Z} PI Sx	Py	1000	500	400	2.0	7	-	20	PI, Lw	1.4	125	500	2000 ^{U14}
													Fd	1.0			
													Others	0.8			
1001827	UWRMF3	IDFdm2	05	PI Sx Fd ^{1,3Z}		1000	500	400	2.0	7	-	20	PI, Lw	1.0	125	500	2000 ^{U14}
				Lw ^{1,3Z}									Fd	0.8			
													Sx	0.6			
1001828	UWRMF4	IDFdm2	07	Sx ¹ Fd ^{1,3Z} Lw ^{1,3Z}	PI ¹	1000	500	400	2.0	4	-	20	PI, Lw	1.0	125	500	2000 ^{U14}
		Note ^{U15}											Fd	0.8			
													Sx	0.6			
1001830	UWROF4	MSdk	01	Fd ^{3Z} Lw ^{3Z}	BI	1200	700	600	2.0	7	-	20	PI, Lw	1.4	125	1200	3000-4000
			02	PI Sx									Others	0.8			
				non-forested			-	-	-		-	-		-			
1001831		MSdk	03	Fd Lw PI	Sx Py	1000	500	400	2.0	7	-	20	PI, Lw	1.0	125	1000	3000-4000
													Others	0.6			
1001833		MSdk ^{U17}	03	Fd Lw PI	Sx	U8	76 ^{U10}	U20	2.0 ^{U4}	-	-	20	PI,Lw	1.4	125	76	400 ^{U14}
													Others	0.6			
1001832		MSdk	04	Fd Lw PI Sx	BI Py	1200	700	600	2.0	7	-	20	PI, Lw	1.4	125	1200	3000
													Others	0.8			
1001834	MSdk	05	Fd ^{3Z} Lw ^{3Z} PI Sx	BI	1200	700	600	2.0	7	-	20	PI, Lw	1.4	125	1200	3000-4000	
													Others	0.8			
1001835	MSdk	06	Sx Fd ^{1,3Z} Lw ^{1,3Z}	BI PI ¹	1200	700	600	2.0	4	-	20	PI, Lw	1.4	125	1200	3000	
													Others	0.8			
1001836	UWROR3	PPdh2	01	Py Fd ^{27,3Z}	Lw ^{10,23,3Z} PI ²³	U9	0 ^{U10}	U20	2.0 ^{U4}	-	-	20	All	0.5	125	0	75 ^{U14}
1001837	UWROR4	PPdh2	02a	Py Fd ^{27,3Z}		U9	0 ^{U10}	U20	2.0 ^{U4}	-	-	20	All	0.5	125	0	75 ^{U14}
1001838	UWROR5	PPdh2	02b	Py Fd ^{27,3Z}		U9	0 ^{U10}	U20	2.0 ^{U4}	-	-	20	All	0.5	125	0	75 ^{U14}
1001839	UWROF5	PPdh2	03	Fd ^{3Z} Py ¹ Sx ²⁸	Lw PI ²³	U8	76 ^{U10}	U20	2.0 ^{U4}	-	-	20	All	0.5	125	76	400 ^{U14}

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Version 3.0; March 20, 2014

6 of 8

Rocky Mountain Natural Resource District FSP Stocking Standards**

	Definitions	#	Footnote	#	Footnote
	Conifer Tree Species	17	restricted to western portion of biogeoclimatic unit in region	75	For the purposes of free growing and regeneration survey standards, minimum horizontal intertree distance (MITD) is 2.0 m or greater for trees to be considered
	"Ba" means amabilis fir;	18	restricted to eastern portion of biogeoclimatic unit in region		well-spaced. A reduced MITD of 1.7 metres may be used to facilitate selection of
	"Bg" means grand fir;	19	19-22 Not applicable to the Rocky Mountain Forest District.		superior planting microsites when sites have:
	"Bl" means subalpine fir;	23	restricted to trial use		<ul style="list-style-type: none"> • Dispersed occurrence of standing water
	"Bp" means noble fir;	24	suitable (as a major species) in wetter portion of		<ul style="list-style-type: none"> • Dispersed occurrence of bedrock outcrops
	"Cw" means western red cedar;		biogeoclimatic unit		<ul style="list-style-type: none"> • Mechanical site preparation (including: mounding, disc trenching)
	"Fd" means Douglas-fir;	25	Not applicable to the Rocky Mountain Forest District.		<ul style="list-style-type: none"> • Root disease problems
	"Hm" means mountain hemlock;	26	Not applicable to the Rocky Mountain Forest District.		<ul style="list-style-type: none"> • Conditions where obstacle planting for snow creep is necessary.
	"Hw" means western hemlock;	27	partial canopy cover required for successful establishment		In any instance where the MITD is reduced below 2.0m, the specific reason will be
	"Lt" means tamarack;	28	limited by moisture deficit		identified in the site plan and a map showing stratum location and boundaries will
	"Lw" means western larch;	29	risk of heavy browsing by moose		be attached to the site plan. (These items will be appended to the site plan when
	"Pa" means whitebark pine;	30	risk of porcupine damage		the conditions justifying use of reduced MITD have been identified.) The area where
	"Pl" means lodgepole pine;	31	risk of white pine blister rust		conditions justify reduced MITD will be stratified separately. One hectare will be the
	"Pw" means white pine;	32	limited by growing-season frosts		minimum stratum size. Planting will be conducted to target levels.
	"Py" means ponderosa pine;	33	footnote retired and replaced with footnote 'a'		The reduced MITD applies to planted trees only.
	"Sb" means black spruce;	34	risk of snow damage	76	Conditions where Lw may be promoted from "acceptable" to
	"Se" means Engelmann spruce;	35	risk of weevil damage		"preferred" in the ESSFdm:
	"Ss" means Sitka spruce;	36	Not applicable to the Rocky Mountain Forest District.		Larch may be considered "preferred" at lower elevations in the ESSFdm where it
	"Sw" means white spruce;	37	risk of heart rots		is present and performing well in the pre-existing mature overstorey or
	"Sx" means hybrid spruce or interior spruce;	38	footnote retired		adjacent mature overstorey of similar site series, slope, aspect and elevation.
	"Sxs" means hybrid Sitka spruce;	39	avoid exposed and windy sites		
	"Sxw" means hybrid white spruce;	40	risk of redheart		Larch may be considered "preferred" at lower elevations in the ESSFdm
	"Yc" means yellow cedar.	41	limited by poorly drained soils		where it is present and is performing well as planted or natural regeneration
		42	restricted to fresh soil moisture regimes		on similar sites in adjacent immature stands that are > 15 years old.
	Broadleaf Tree Species	43	Footnotes 43-46 Not applicable to the Rocky Mountain Forest District.		
	"AcB" means balsam poplar;	47	risk of balsam wooly adelgid		Larch may be considered "preferred" at lower elevations in the ESSFdm where a
	"Act" means black cottonwood;	48	risk of heavy browsing by deer		significant forest health issue for other preferred species has been identified and
	"At" means trembling aspen;	49	applies only to rust resistant, planted stock.		described in the Site Plan.
	"Ep" means common paper birch;	50	restricted to sites where the species occurs as a		
			major species in a pre-harvest, natural stand		
#	Broadleaf Management Constraints	51	restricted to areas with proven PI performance		
a	productive, reliable, and feasible regeneration option	52	restricted to sheltered microsites with deep soil		Conditions where Sx may be promoted from "acceptable" to
b	limited in productivity, reliability and/or feasibility	53	minor component		"preferred" in the ESSFdm.
		54	risk of unsuccessful release of advance regeneration		Spruce may be considered "preferred" in the ESSFdm on moister sites where it
	"Biogeoclimatic unit" or "BGC classification" means	55	acceptable in sx-sm portion of site series		is present and performing well in the pre-existing mature overstorey or adjacent
	the zone, subzone, variant and site series described				mature overstorey of similar site series, slope, aspect and elevation.
	in the most recent field guide published by the Ministry	#	Localized Footnotes		
	of Forests for the identification and interpretation of	56	Footnotes 56 and 59 to 68 do not apply		Spruce may be considered "preferred" in the ESSFdm on moister sites where
	ecosystems, as applicable to a harvested area.		to the Rocky Mountain Forest District		it is present and is performing well as planted or natural regeneration on similar
		57	Pw rust-resistant stock may be preferred to a max 50% of preferred		sites in adjacent immature stands that are >15 years old.
			and acceptable well-spaced stems.		
	"MIN or "Min" means minimum.	58	Fd, Bg limited to a max 50% of preferred and acceptable well-spaced		Spruce may be considered "preferred" in the ESSFdm on moister sites where
	"MAX or Max" means maximum		stems due to root rot.		a significant forest health issue for other preferred species has been identified
	Max*1 Maximum post-spacing density can be increased within				
	the range of 3000-4000 sph depending upon forest health				
	concerns and estimated rate of mortality/damage				and described in the Site Plan.
#	Footnote	69	Species is restricted to upper elevations when used in the southern		
1	elevated microsites are preferred		portion of the biogeoclimatic unit.		
2	suitable on thick forest floors	70	Can be considered as "preferred species" on sites where low risk of		
3	restricted to coarse-textured soils		snow damage is expected.		<i>Acceptable performance is indicated by good form and vigour, with minimum</i>
4	restricted to medium-textured soils	71	Can be considered as "preferred species" on sites where Armillaria is		<i>evidence of damage and relatively disease free.</i>
5	footnote retired		a serious concern.		<i>Appropriate documentation for stand composition and vigour includes:</i>
6	restricted to nutrient-very-poor sites	72	Can be considered as "preferred species" on frost prone sites		<i>cruise compilations, silviculture surveys on older established stands, professional</i>
7	restricted to nutrient-medium sites		(footnote #1 then applies).		<i>site assessments and pre-harvest silviculture data.</i>
8	restricted to steep slopes	73	Can be considered as "preferred species" on sites where a low risk of		<i>Lower elevation is defined as below 1575 metres on cool aspects and below</i>
9	restricted to southerly aspects		damage from forest health factors (in particular; stem rusts, gall rust,		<i>1650 metres on warm aspects.</i>
10	restricted to northerly aspects		and Petrova albicapitana) is present.	77	May be considered as "preferred species" above 1800 metres.
11	restricted to crest slope positions	74	Layer 1 trees may be tallied regardless of spacing providing they meet	78	May be considered as preferred species for purposes of managing caribou
12	suitable on cold air drainage sites		free-growing damage criteria.		habitat on areas legally designated for caribou habitat
13	restricted to upper elevations of biogeoclimatic unit				
14	restricted to lower elevations of biogeoclimatic unit				
15	restricted to northern portion of biogeoclimatic unit in region				
16	restricted to southern portion of biogeoclimatic unit in region				

Rocky Mountain Natural Resource District FSP Stocking Standards**

	UWR Footnotes			
N1	Rotational harvest entries using clearcut or light overstorey shelterwood. Manage for timber, ungulate winter range and approximately two decades of interim rangeland values per rotation.			
N2	Maintain connectivity of retention forest and OGMA's through managed forest and open forest ecosystems. Provide winter forest cover for ungulates.			
N3	Periodic entries of burning, thinning and partial cutting to maintain open forest conditions and rangeland values.			
N4	Provide connectivity between Open Range areas. Provide ungulate travel corridors between winter range and winter forest cover.			
N5	Periodic harvesting, prescribed burning and/or thinning to maintain open range condition, enhancing existing or potential bunchgrass sites.			
N6	Maintain connectivity of rangelands.			
N7	Inventory and periodic burns.			
U8	As stated on the UWR Order; the stocking range is 76-400 trees/hectare which must include 20-50 trees of the largest 1/3 of existing diameter range.			
U9	As stated on the UWR Order; the stocking range is 5-75 trees/hectare which must include 5-20 trees of the largest 1/3 of the existing diameter range.			
U10	KBLUP assumes at the landscape level Open Forest will contribute 50% of maximum timber benefits and 50% of maximum forage benefits and that Open Range contributes 10% timber benefits and 90% forage benefits. Targets of 250 stems/hectare for Open Forest and 20 stems/hectare for Open Range approximate the 50% and 10% timber contribution. It is recognized that to accomplish UWR forage objectives and subject to footnote U14, the range of stocking may vary for Open Forest from 76 to 400 stems/ha and that Open Range may vary from 0 to 75 stems/ha.			
N11	10% max.			
N12	40% max.			
N13	80% max.			
U14	FSP Max Density Standards and Section 8 of UWR Orders U-4-006, U-4-008 are used where applicable.			
U15	IDFdm2 07 is not in UWR order. (In UWR objectives it is expected to be managed as Riparian Area.)			
U16	PPdh2 04 is Open Forest in the UWR order but is not considered part of timber harvesting base, no standard is applied.			
U17	Standard applies only where Fd is the leading species.			
U18	Applies >1000 metres except in LUs 132, 135, and 138 where normal Managed Forest standards apply.			
U19	Applies <1000 metres except in LUs 132, 135, and 138 where normal Managed Forest standards apply.			
U20	These stocking standards do not over-ride the stand structure and forest cover requirements contained in the Ungulate Winter Range Orders for the Cranbrook and Invermere TSAs. Refer to these documents when designing and harvesting UWR/NDT4 openings.			

Intermediate Cut, No Regeneration Objectives-Standards

Minimum Basal Area Retained (M ² /ha)	Standards ID #	Additional Criteria (all areas)
70	1181	To qualify as an intermediate cut a minimum of 40 % of the stand's original basal area must be retained.
60	1182	
50	1183	
40	1184	
30	1185	
20	1186	
15	1187	
<p>Intermediate Cuts:</p> <p>Preferred and acceptable species to be retained are as specified in Table A by biogeoclimatic ecosystem classification (BEC) site series.</p> <p>All layer one trees that meet minimum leave tree characteristics are considered preferred and count towards stocking. There is no minimum inter tree distance in Layer 1.</p> <p>Minimum Leave Tree Characteristics:</p> <p>Stands Age Class 6 and Younger:</p> <p>Layer 1 trees must meet limits defined in the <i>Tree Wounding and Decay Guidebook, February,1997</i> - Uneven Aged Management Objective to be acceptable.</p> <p>All trees must meet criteria defined in Appendix 10 of the <i>Establishment to Free Growing Guidebook: Nelson Region, May 2000</i>.</p> <p>Stands Age Class 7 and Older:</p> <p>Layer 1 trees must meet the limits defined in the <i>Cruising Manual</i> (effective December 5, 2002) for tree classes 1, 2, 5, and 8.</p> <p>All trees must meet criteria defined in Appendix 10, <i>Establishment to Free Growing Guidebook: Nelson Region - May 2000</i>.</p> <p>Intermediate cuts can be declared immediately following harvesting</p>		

Uneven-aged Stocking Standards* -- Single-tree selection only

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5
Target from Table A standards	Layer**	Stocking***			Target from Table A standards	Layer**	Stocking***		
(stems/ha)/Standards ID #		Target pa	MIN pa	MIN p	(stems/ha)/Standards ID #		Target pa	MIN pa	MIN p
		(well-spaced/ha)					(well-spaced/ha)		
1200	1	600	300	250	800	1	300	150	150
	2	800	400	300		2	400	200	200
	3	1000	500	400		3	600	300	300
	4	1200	700	600		4	800	400	400
1000	1	400	200	200	600	1	300	150	150
	2	600	300	250		2	400	200	200
	3	800	400	300		3	500	300	300
	4	1000	500	400		4	600	400	400
900	1	400	200	200	400	1	200	100	100
	2	500	300	250		2	300	125	125
	3	700	400	300		3	300	150	150
	4	900	500	400		4	400	200	200

* Maximum regeneration delay is seven years. For a seven-year regeneration delay, the early free growing is 12 years and the late free growing is 20 years. Regeneration delay can be met immediately following harvest if the residual stand has no significant damage or pest problems and meets minimum stocking standards as determined by a qualified professional. If regeneration is achieved immediately following harvest, earliest free growing date is 12 months after completion of harvest and the latest date is 24 months after completion of harvest.

**Stand Layer Definition

Layer 1	Mature	trees $\geq$ 12.5 cm dbh
Layer 2	Pole	trees 7.5 cm to 12.4 cm dbh
Layer 3	Sapling	trees $\geq$ 1.3 m height to 7.4 cm dbh
Layer 4	Regeneration	trees < 1.3 m height

*** pa - preferred and acceptable species p - preferred species

Preferred and acceptable species and "Target from Table A standards" are as specified in Table A by biogeoclimatic ecosystem classification (BEC) site series.