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ROCKY MT STOCKING STANDARD ID #	NAME	BGC Classification Zone/SZ	Series	Regeneration Species Conifer Preferred (p)	Acceptable (a)	Stocking(i) Target (well-spaced/ha)	MIN pa	MIN p	Min Intertree Distance	Regen Delay (Max yrs)	Free Growing Min. Height Species	Ht (m)	Tree Ht to Brush (min%)	Post Spacing Max Range (sph)
1062159		**ESSFdk1**	101	Pl Sx Bl[201,208]	Fd[14,203] Lw[14,203]	1200	700	600	2.0	7	Pl,Lw	1.6	125	3000-4000
											Fd	1.0		
											Others	0.8		
1062160		**ESSFdk1**	102	Fd[9,14] Pl Pa[201] Pf[201]	Sx Bl[208]	1000	500	400	2.0	7	Pl,Lw	1.2	125	3000-4000
											Fd	0.8		
											Others	0.6		
1062161	UWROF1	**ESSFdk1**	102	Fd[9,14] Pl Pa[201] Pf[201]	Sx Bl[208]	U8	76[U10]	U20	2.0 [74]	-	Pl,Lw	1.2	125	400[U14]
											Fd	0.8		
											Others	0.6		
1062162		**ESSFdk1**	103	Pl Fd[9,14,203] Sx Lw[9,14,203] Pa[201]	Bl[208]	1000	500	400	2.0	7	Pl,Lw	1.6	125	3000-4000
											Fd	1.0		
											Others	0.8		
1062163		**ESSFdk1**	104	Pl Fd[9,14,203] Lw[9,14,203] Sx Bl[201,208]	Pa	1200	700	600	2.0	7	Pl,Lw	1.6	125	3000-4000
											Others	0.8		
1062164		**ESSFdk1**	110	Bl[201,208] Sx[32]	Pl	1200	700	600	2.0	4	Pl	1.6	125	3000-4000
											Others	0.8		
1062165		**ESSFdk1**	111	Bl[1,32,201,208] Sx[1,32]		1200	700	600	2.0	4	Others	0.8	125	3000-4000
1062166		**ESSFdk2**	101	Pl Sx Bl[201,208]	Fd[14,203] Lw[14,16,203] Pa	1200	700	600	2.0	7	Pl,Lw	1.6	125	3000-4000
											Fd	1.0		
											Others	0.8		
1062167		**ESSFdk2**	102	Fd[9,14] Pl Pa[201] Pf[201]	Bl[208] Lw[9,14,16,203]	1000	500	400	2.0	7	Pl,Lw	1.2	125	3000-4000
											Fd	0.8		
											Others	0.6		
1062168	UWROF2	**ESSFdk2**	102	Fd[9,14] Pl Pa[201] Pf[201]	Bl[208] Lw[9,14,16,203]	U8	76[U10]	U20	2.0 [74]	-	Pl,Lw	1.2	125	400[U14]
											Fd	0.8		
											Others	0.6		
1062169		**ESSFdk2**	103	Pl Fd[9,14] Lw[9,14,16,203] Sx Pa[201]	Bl[208]	1000	500	400	2.0	7	Pl,Lw	1.6	125	3000-4000
											Fd	1.0		
											Others	0.8		

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ROCKY MT STOCKING STANDARD ID #	NAME	BGC Classification		Regeneration							Free Growing			
				Species		Stocking(i)			Min Intertree Distance	Regen Delay (Max yrs)	Min. Height		Tree Ht to Brush (min%)	Post Spacing Max Range (sph)
				Conifer		Target (well-spaced/ha)	MIN pa	MIN p			Species	Ht (m)		
		Zone/SZ	Series	Preferred (p)	Acceptable (a)									
1062170		**ESSFdk2**	104	Pl Fd[9,14] Lw[9,14,16,203] Sx Pa[201]	Bl[208]	1200	700	600	2.0	7	Pl,Lw Fd Others	1.6 1.0 0.8	125	3000-4000
1062171		**ESSFdk2**	110	Bl[201,208] Sx		1200	700	600	2.0	4	All	0.8	125	3000-4000
1062172		**ESSFdk2**	111	Bl[32,201,208] Sx[32]		1200	700	600	2.0	4	All	0.8	125	3000-4000
1062173		**ESSFdk2**	112	Bl[1,32,201,208] Sx[1,32]		1200	700	600	2.0	4	All	0.8	125	3000-4000
1062174		**ESSFdkw**	101	Sx Bl[208]		1200	700	600	2.0	4	All	0.8	125	3000-4000
1062175		**ESSFdkw**	102	Sx Bl[208]	La Pa	1000	500	400	2.0	4	All	0.8	125	3000-4000
1062176		**ESSFdkw**	103	Pa[201] Sx Bl[208]	La	1200	700	600	2.0	4	All	0.8	125	3000-4000
1062177		**ESSFdkw**	110	Sx Bl[208]		1000	500	400	2.0	4	All	0.8	125	3000-4000
1062178		**ESSFwm1**	101	Sx Bl[201,208]	Pl[34]	1200	700	600	2.0	4	Pl Others	2.0 0.8	125	3000-4000
1062179		**ESSFwm1**	102	Fd[14] Sx Pa[201]	Pl Bl[208]	1000	500	400	2.0	7	Pl Others	1.6 0.8	125	3000-4000
1062180		**ESSFwm1**	103	Bl[201,208] Sx Fd[9,14,203] Lw[9,14,203,] Pa[10,13,201]	Pl[200]	1200	700	600	2.0	4	Pl,Lw Fd Others	2.0 1.0 0.8	125	3000-4000
1062181		**ESSFwm1**	104	Sx Bl[201,208]	Pl[200]	1200	700	600	2.0	4	Pl Others	2.0 0.8	125	3000-4000
1062182		**ESSFwm1**	110	Sx Bl[201,208]		1200	700	600	2.0	4	All	0.8	125	3000-4000
1062183		**ESSFwm1**	111	Sx Bl[201,208]		1200	700	600	2.0	4	All	0.8	125	3000-4000
1062184		**ESSFwm1**	112	Sx Bl[201,208]		1200	700	600	2.0	4	All	0.8	125	3000-4000

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ROCKY MT STOCKING STANDARD ID #	NAME	BGC Classification		Regeneration							Free Growing			
				Species		Stocking(i)			Min Intertree Distance	Regen Delay	Min. Height		Tree Ht to Brush	Post Spacing Max Range
				Conifer		Target (well-spaced/ha)	MIN pa	MIN p			Species	Ht (m)	(min%)	(sph)
		Zone/SZ	Series	Preferred (p)	Acceptable (a)					(Max yrs)				
1062185		**ESSFwm2****	101	$Bl^{201,208}$ Sx	Pl^{34}	1200	700	600	2.0	4	Pl	1.6	125	3000-4000
											Others	0.8		
1062186		**ESSFwm2****	102	Pa^{201} Sx	La^{10} Pl^{34} Bl^{208}	1000	500	400	2.0	7	Pl	1.2	125	3000-4000
											Others	0.6		
1062187		**ESSFwm2****	103	Sx Pa^{201} Pl^{34}	Bl^{208}	1200	700	600	2.0	7	Pl	1.6	125	3000-4000
											Others	0.8		
1062188		**ESSFwm2****	104	$Bl^{201,208}$ Sx	Pa Pl^{34}	1200	700	600	2.0	7	Pl	1.6	125	3000-4000
											Others	0.8		
1062189		**ESSFwm2****	110	Bl^{208} Sx		1200	700	600	2.0	4	All	0.8	125	3000-4000
1062190		**ESSFwm2****	111	$Bl^{32,208}$ Sx^{32}		1200	700	600	2.0	4	All	0.8	125	3000-4000
1062191		**ESSFwm2****	112	$Bl^{1,32,202}$ $Sx^{1,32}$		1000	500	400	2.0	4	All	0.8	125	3000-4000
1062192		**ESSFwm4****	101	$Bl^{201,208}$ $Hw^{14,201}$ Sx	Pl^{34} Lw^{14} Fd^{14}	1200	700	600	2.0	4	Pl,Lw	2.0	125	3000-4000
											Fd	1.4		
											Others	1.0		
1062193		**ESSFwm4****	102	Lw^{14} Fd^{14} $Pa^{13,201}$ Pl Sx^{13}	Bl^{208}	1000	500	400	2.0	4	Pl,Lw	1.6	125	3000-4000
											Fd	1.0		
											Others	0.8		
1062194		**ESSFwm4****	103	Sx Pl^{34} $Fd^{9,14}$ $Lw^{9,14}$	Bl^{208} Hw^{14}	1200	700	600	2.0	4	Pl,Lw	2.0	125	3000-4000
											Fd	1.4		
											Others	1.0		
1062195		**ESSFwm4****	110	$Bl^{32,208}$ Sx^{32}	Hw^{14} Cw^{14}	1200	700	600	2.0	4	All	1.0	125	3000-4000
1062196		**ESSFwm4****	111	$Bl^{1,32,208}$ $Sx^{1,32}$		1000	500	400	2.0	4	All	0.8	125	3000-4000

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ROCKY MT STOCKING STANDARD ID #	NAME	BGC Classification Zone/SZ	Series	Regeneration Species Conifer Preferred (p)	Acceptable (a)	Stocking(i) Target (well-spaced/ha)	MIN pa	MIN p	Min Intertree Distance	Regen Delay (Max yrs)	Free Growing Min. Height Species	Ht (m)	Tree Ht to Brush (min%)	Post Spacing Max Range (sph)
1062197		**ESSFwh2****	101	Bl^{201,208} Hw^{9,14,201} Sx	Pl^{34} Fd^{9,14} Lw^{9,14} Pw^{9,14,31} Cw^{9,14,32}	1200	700	600	2.0	4	Pl,Lw, Pw Fd Others	2.0 1.4 1.0	125	3000-4000
1062198		**ESSFwh2****	102	Sx Pl^{34} Fd^{14}	Bl^{208} Pa^{13}	1000	500	400	2.0	7	Pl Fd Others	1.6 1.2 0.8	125	3000-4000
1062199		**ESSFwh2****	103	Pl^{34} Sx Fd^{14} Lw^{14}	Bl^{208} Pa^{13} Pw^{14,31}	1200	700	600	2.0	7	Pl,Lw, Pw Fd Others	2.0 1.4 1.0	125	3000-4000
1062200		**ESSFwh2****	104	Sx Cw^{14,201} Fd^{9,14,201} Lw^{9,14,201}	Bl^{208} Pl^{34} Pw^{9,14,31} Hw^{9,14}	1200	700	600	2.0	4	Pl,Lw, Pw Fd Others	2.0 1.4 1.0	125	3000-4000
1062201		**ESSFwh2****	110	Bl^{208} Sx	Hw^{14,32} Cw^{14,32}	1200	700	600	2.0	4	All	1.0	125	3000-4000
1062202		**ESSFwh2****	111	Bl^{208} Sx	Hw^{14,32} Cw^{14,32}	1200	700	600	2.0	4	All	1.0	125	3000-4000
1062203		**ESSFwh2****	112	Bl^{1,32,208} Sx^{1,32}	Hw^{1,32}	1000	500	400	2.0	4	All	0.8	125	3000-4000
1062204		**ESSFmm3**	101	Sx Bl^{201,208}	Pl^{34}	1200	700	600	2.0	4	Pl Others	1.6 0.8	125	3000-4000
1062205		**ESSFmm3**	102	Fd^{9,14} Pl Pa^{201}	Sx Bl^{208}	1000	500	400	2.0	7	Pl Fd Others	1.2 0.8 0.6	125	3000-4000
1062206		**ESSFmm3**	103	Fd^{14} Sx Pa^{201}	Pl Bl^{208}	1000	500	400	2.0	7	Pl,Lw Fd Others	1.6 1.0 0.8	125	3000-4000
1062207		**ESSFmm3**	104	Bl^{201,208} Sx	Pa Pl^{34}	1200	700	600	2.0	7	Pl Others	1.6 0.8	125	3000-4000
1062208		**ESSFmm3**	110	Bl^{208} Sx		1200	700	600	2.0	4	All	0.8	125	3000-4000
1062209		**ESSFmm3**	111	Bl^{32,208} Sx^{32}		1200	700	600	2.0	4	All	0.8	125	3000-4000
1062210		**ESSFmm3**	112	Bl^{1,32,208} Sx^{1,32}		1000	500	400	2.0	4	All	0.8	125	3000-4000

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ROCKY MT STOCKING STANDARD ID #	NAME	BGC Classification		Regeneration							Free Growing			
				Species		Stocking(i)			Min Intertree Distance	Regen Delay	Min. Height		Tree Ht to	Post Spacing
				Conifer		Target	MIN pa	MIN p			Species	Ht	Brush	Max Range
		Zone/SZ	Series	Preferred (p)	Acceptable (a)	(well-spaced/ha)				(Max yrs)		(m)	(min%)	(sph)
1062211		ICHmk4	101	Cw Fd[58] Lw Sx[10,13]	Pl[200] Bl[10,13,208]	1200	700	600	2.0	7	Pl,Lw	2.0	150	3000-4000
											Fd	1.4		
											Others	1.0		
1062212	UWROF3	ICHmk4	102a	Fd	Pl Lw	U8	76[U10]	U20	2.0 [74]	-	Pl,Lw	1.4	150	400[U14]
											Fd	1.0		
1062213		ICHmk4	102b	Fd Lw	Pl	800	400	400	2.0	7	Pl,Lw	1.4	150	3000-4000
											Fd	1.0		
1062214		ICHmk4	103	Fd[58] Lw Sx[10,13]	Pl[200] Bl[10,13,208]	1200	700	600	2.0	7	Pl,Lw	2.0	150	3000-4000
											Fd	1.4		
											Others	1.0		
1062215		ICHmk4	110	Cw Sx	Bl[10,13,208] Lw[1] Fd[1]	1200	700	600	2.0	7	Lw	2.0	150	3000-4000
											Fd	1.4		
											Others	1.0		
1062216		ICHmk4	111	Cw Sx	Bl[208]	1200	700	600	2.0	7	All	1.0	150	3000-4000
1062217		ICHmk4	112	Sx[1]	Bl[1,208] Cw[32]	1000	500	400	2.0	7	All	0.8	150	3000-4000
1062218		ICHmk5	101	Cw Fd[58] Lw[16] Sx	Pl[200] Bl[10,13,208]	1200	700	600	2.0	7	Pl,Lw	2.0	150	3000-4000
											Fd	1.4		
											Others	1.0		
1062219	UWROF4	ICHmk5	102	Fd	Pl	U8	76[U10]	U20	2.0 [74]	-	Pl	1.4	150	400[U14]
											Fd	1.0		
1062220		ICHmk5	102	Fd	Pl	800	400	400	2.0	7	Pl	1.4	150	3000-4000
											Fd	1.0		
1062221		ICHmk5	103	Fd Lw[16]	Pl	800	400	400	2.0	7	Pl, Lw	1.4	150	3000-4000
											Fd	1.0		
1062222		ICHmk5	104	Fd[58] Lw[16] Sx[10,13]	Pl[200] Bl[10,13,208]	1200	700	600	2.0	7	Pl, Lw	1.4	150	3000-4000
											Fd	1.0		
											Others	0.8		
1062223		ICHmk5	110	Cw Sx	Bl[10,13,208] Lw[1] Fd[1]	1200	700	600	2.0	7	Lw	2.0	150	3000-4000
											Fd	1.4		
											Others	1.0		
1062224		ICHmk5	111	Sx	Bl[208] Fd[1]	1200	700	600	2.0	7	All	1.0	150	3000-4000
1062225		ICHmk5	112	Sx[1]	Bl[1,208] Cw[32]	1000	500	400	2.0	7	All	0.8	150	3000-4000

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1062226		**ICHmw2****	101	Fd[58] Lw Cw Hw[201] Pw[31]	Bl[10,13,208] Sx[10,13]	1200	700	600	2.0	4	Lw,Pw	2.0	150	3000-4000
											Fd	1.4		
											Others	1.0		
1062227	UWROF5	**ICHmw2****	102	Fd Pl	Lw Py[9,14,203]	U8	76[U10]	U20	2.0 [74]	-	Pl, Lw	1.4	150	400[U14]
											Fd	1.0		
											Others	0.8		
1062228		**ICHmw2****	102	Fd Pl	Lw Py[9,14,203]	1000	500	400	2.0	7	Pl, Lw	1.4	150	3000-4000
											Fd	1.0		
											Others	0.8		
1062229		**ICHmw2****	103	Fd Lw	Pl[200] Pw[31] Cw[13] Py[9,14,203]	1000	500	400	2.0	7	Lw,Pli, Pw	2.0	150	3000-4000
											Fd	1.4		
											Others	1.0		
1062230		**ICHmw2****	104	Cw[10,201] Fd[58] Lw Pw[31]	Pl Hw Py[9,14,203] Sx[10,13]	1200	700	600	2.0	7	Lw,Pw	2.0	150	3000-4000
											Fd	1.4		
											Others	1.0		
1062231		**ICHmw2****	110	Cw Hw[201] Fd[1,14,32,58] Lw[1,14,32] Pw[31]Sx[10,13,201]		1200	700	600	2.0	4	Lw,Pw	2.0	150	3000-4000
											Fd	1.4		
											Others	1.0		
1062232		**ICHmw2****	111	Cw[32] Pw[1,31] Sx	Fd[1,14,32,58] Hw[32] Lw[1,14,32]	1200	700	600	2.0	4	Lw,Pw	2.0	150	3000-4000
											Fd	1.4		
											Others	1.0		
1062233		**ICHmw2****	112	Sx Cw[1,32]	Hw[1,32] Bl[202]	1200	700	600	2.0	4	All	1.0	150	3000-4000
1062234		**ICHmw2****	113	Cw[1,32] Sx[1]	Bl[1,208] Hw[1,32]	1000	500	400	2.0	4	All	0.8	150	3000-4000
1062235		**ICHmw2****	114	Cw[1,32] Sx[1]	Bl[1,208] Hw[1,32]	1000	500	400	2.0	4	All	0.8	150	3000-4000

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1062236		**ICHdw1****	101	Cw^{10} Fd^{58} Lw Pw^{31}	Pl^{13} Bg Hw $Py^{9,14}$	1200	700	600	2.0	7	Pl,Lw, Pw	2.0	150	3000-4000
											Fd	1.4		
											Others	1.0		
1062237	UWROF6	**ICHdw1****	102	Fd Py	Lw Pl^{13}	U8	76^{U10}	U20	2.0^{74}	-	Pl,Lw	1.4	150	400^{U14}
											Fd	1.0		
											Others	0.8		
1062238		**ICHdw1****	102	Fd Py	Lw Pl^{13}	800	400	400	2.0	7	Pl,Lw	1.4	150	3000-4000
											Fd	1.0		
											Others	0.8		
1062239		**ICHdw1****	103	Fd Lw Py	Pl^{13} Pw^{31}	1000	500	400	2.0	7	Pl,Lw, Pw	1.4	150	3000-4000
											Fd	1.0		
											Others	0.8		
1062240		**ICHdw1****	104	Fd^{58} Lw $Py^{9,203}$ Pw^{31}	Bg Pl $Cw^{10,204}$	1200	700	600	2.0	7	Pl,Lw, Pw	2.0	150	3000-4000
											Fd	1.4		
											Others	1.0		
1062241		**ICHdw1****	110	Cw $Fd^{1,32,58}$ $Lw^{1,32,201}$ $Pw^{31}Hw^{201}$	Bg Sx	1200	700	600	2.0	4	Lw,Pw	2.0	150	3000-4000
											Fd	1.4		
											Others	1.0		
1062242		**ICHdw1****	111	Cw $Pw^{1,31}$ Sx	Bg $Fd^{1,32}$ Hw $Lw^{1,32}$	1200	700	600	2.0	4	Lw,Pw	2.0	150	3000-4000
											Fd	1.4		
											Others	1.0		
1062243		**ICHdw1****	112	Sx^{1} $Cw^{1,32}$	$Hw^{1,32}$ Pw^{31}	1000	500	400	2.0	4	Pw	1.4	150	3000-4000
											Others	0.8		
1062244		**ICHdw1****	113	Sx^{1} $Cw^{1,32}$	$Hw^{1,32}$	1000	500	400	2.0	4	All	0.8	150	3000-4000

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				Species		Stocking(i)			Min Intertree Distance	Regen Delay (Max yrs)	Min. Height		Tree Ht to Brush (min%)	Post Spacing Max Range (sph)
				Conifer		Target (well-spaced/ha)	MIN pa	MIN p			Species	Ht (m)		
		Zone/SZ	Series	Preferred (p)	Acceptable (a)									
1062245		ICHdm**	101	Cw Fd[58] Lw Sx Pw[31]	Pl Hw Bl[208] Bg[14]	1200	700	600	2.0	4	Pl,Lw, Pw Fd Others	2.0 1.4 1.0	150	3000-4000
1062246	UWROF7	ICHdm**	102	Fd[58] Lw Pl	Py[9,14,203]	U8	76[U10]	U20	2.0 [74]	-	Pl, Lw Fd Others	1.4 1.0 0.8	150	400[U14]
1062247		ICHdm**	103	Fd[58] Lw Pl	Pw[31] Sx Bl[10,13,208] Bg[14]	1200	700	600	2.0	7	Pl,Lw, Pw Fd Others	2.0 1.4 1.0	150	3000-4000
1062248		ICHdm**	110	Cw Fd[1,14,32,58] Lw[1,14,32,201] Pw[31] Sx	Bl[12,13,208] Hw Bg[14]	1200	700	600	2.0	4	Pl,Lw, Pw Fd Others	2.0 1.4 1.0	150	3000-4000
1062249		ICHdm**	111	Cw[1,32] Sx	Bl[12,13,208] Hw	1200	700	600	2.0	4	All	1.0	150	3000-4000
1062250		ICHdm**	112	Sx[1]	Cw[1,32] Hw[1,32] Bl[1,208]	1000	500	400	2.0	4	All	0.8	150	3000-4000

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BECv11 - Rocky Mountain Natural Resource District Stocking Standards

ROCKY MT STOCKING STANDARD ID #	NAME	BGC Classification Zone/SZ	Series	Regeneration Species Conifer Preferred (p)	Acceptable (a)	Stocking(i) Target (well-spaced/ha)	MIN pa	MIN p	Min Intertree Distance	Regen Delay (Max yrs)	Free Growing Min. Height Species	Ht (m)	Tree Ht to Brush (min%)	Post Spacing Max Range (sph)
1062251	Low DSG1	**MSdk**	101	Fd[32] Lw[16,32,203] Sx	Pl[200]	1200	700	600	2.0	7	Pl, Lw	1.4	125	3000-4000
											Fd	1.0		
											Others	0.8		
TBD	*M/HDSG1 (Enh Basic)*	***MSdk***	*101*	*Fd[32] Lw[16,32,203] Sx*	*Pl*	*TBD*					*Pl, Lw*	*1.4*	*125*	*3000-4000*
											Fd	*1.0*		
											Others	*0.8*		
1062252	UWROR1	**MSdk**	102	Fd Py[14,203] Pf[201]	Pl	U9	U10	U20	2.0[74]	-	Pl	1.4	125	75[U14]
											Fd	0.8		
											Others	0.6		
1062253		**MSdk**	103	Fd Lw[14,16,203] Py[14,203]	Pl Sx[10,13]	1000	500	400	2.0	7	Pl, Lw	1.4	125	3000-4000
											Fd	0.8		
											Others	0.6		
1062254	UWROF8	**MSdk**	103[U17]	Fd Lw[14,16,203] Py[14,203]	Pl Sx[10,13]	U8	76[U10]	U20	2.0[74]	-	Pl, Lw	1.4	125	400[U14]
											Others	0.6		
1062255		**MSdk**	104	Sx Pl	Bl[208]	1200	700	600	2.0	7	Pl	1.4	125	3000-4000
											Others	0.8		
1062256	Low DSG2	**MSdk**	105	Fd Pl Sx Lw[16,203]	Bl[208]	1200	700	600	2.0	7	Pl, Lw	1.4	125	3000-4000
											Fd	1.0		
											Others	0.8		
TBD	*M/H DSG2 (Enh Basic)*	***MSdk***	*105*	*Fd Sx Lw[16,203]*	*Bl[208] Pl*	*TBD*					*Pl, Lw*	*1.4*	*125*	*3000-4000*
											Fd	*1.0*		
											Others	*0.8*		
1062257		**MSdk**	110.1	Fd[32] Lw[16,32,203] Sx	Bl[208] Pl	1200	700	600	2.0	7	Pl, Lw	1.4	125	3000-4000
											Others	0.8		
1062258		**MSdk**	110.2	Cw Fd[32] Lw[16,32.203] Sx	Bl[208] Pl	1200	700	600	2.0	7	Pl, Lw	1.4	125	3000-4000
											Others	0.8		
1062259		**MSdk**	111	Sx	Bl[208]	1200	700	600	2.0	7	All	0.8	125	3000-4000
1062260		**MSdk**	112	Sx	Bl[208] Pl[1]	1200	700	600	2.0	7	All	0.8	125	3000-4000

** described in LMH 70
Superscript footnotes contain additional information or requirements

BECv11 - Rocky Mountain Natural Resource District Stocking Standards

ROCKY MT STOCKING STANDARD ID #	NAME	BGC Classification		Regeneration							Free Growing			
				Species		Stocking(i)			Min Intertree Distance	Regen Delay	Min. Height		Tree Ht to Brush	Post Spacing Max Range
				Conifer		Target	MIN pa	MIN p			Species	Ht		
		Zone/SZ	Series	Preferred (p)	Acceptable (a)	(well-spaced/ha)				(Max yrs)		(m)	(min%)	(sph)
1062261	Low DSG3	**MSdw**	101	Fd Lw Sx	Bl[208] Pl[200]	1200	700	600	2.0	7	Pl, Lw	1.4	125	3000-4000
											Others	0.8		
TBD	*M/H DSG3 (Enh Basic)*	***MSdw***	*101*	*Fd Lw Sx*	*Bl [208] Pl [200]*	*1200*	*700*	*600*	*2.0*	*7*	*Pl, Lw*	*1.4*	*125*	*3000-4000*
											Others	*0.8*		
1062262	UWROR2	**MSdw**	102	Fd Py[9,14,203] Pf[201]	Pl	U9	U10	U20	2.0 [74]	-	Pl	1.4	125	75[U14]
											Fd	0.8		
											Others	0.6		
1062263		**MSdw**	103	Fd Lw Py[14,203]	Pl	1000	500	400	2.0	7	Pl, Lw	1.4	125	3000-4000
											Others	0.6		
1062264	UWROF9	**MSdw**	103[U17]	Fd Lw Py[14,203]	Pl	U8	76[U10]	U20	2.0 [74]	-	Pl, Lw	1.4	125	400[U14]
											Others	0.6		
1062265	Low DSG4	**MSdw**	104	Fd Lw Pl	Bl[10,13] Sx[10,13]	1200	700	600	2.0	7	Pl, Lw	1.4	125	3000-4000
											Others	0.8		
TBD	*M/H DSG4 (Enh Basic)*	***MSdw***	*104*	*Fd Lw Sx [201]*	*Pl Bl [10,13,208]*		*TBD*				*Pl, Lw*	*1.4*	*125*	*3000-4000*
											Others	*0.8*		
1062266		**MSdw**	110.1	Fd[32] Lw[32] Sx	Bl[208] Pl	1200	700	600	2.0	4	Pl, Lw	1.4	125	3000-4000
											Others	0.8		
1062267		**MSdw**	110.2	Cw Fd[32] Lw[32] Sx	Bl[208] Pl	1200	700	600	2.0	4	Pl, Lw	1.4	125	3000-4000
											Others	0.8		
1062268		**MSdw**	111	Sx[1]	Bl[208]	1200	700	600	2.0	4	All	0.8	125	3000-4000
1062269		**MSdw**	112	Sx[1]	Bl[208] Pl[1]	1200	700	600	2.0	4	All	0.8	125	3000-4000
1062270	UWRMF1	**IDFdk5**	101	Fd Lw[32,203]	Pl[200]	1000	500	400	2.0	7	Pl,Lw	1.0	125	500-2000 [U14]
											Fd	0.8		
1062271	UWROR3	**IDFdk5**	102	Fd Py[203]		U9	U10	U20	2.0 [74]	-	All	0.5	125	75[U14]
1062272	UWROF10	**IDFdk5**	103	Fd Py[203]		U8	76[U10]	U20	2.0 [74]	-	All	0.5	125	400[U14]
1062273	UWROF11	**IDFdk5**	104	Fd Lw[203] Py[9,203]	Pl[200]	U8	76[U10]	U20	2.0 [74]	-	All	0.5	125	400[U14]
1062274	UWRMF2	**IDFdk5**	110	Fd[32] Lw[32,203] Sx	Pl	1000	500	400	2.0	7	Pl,Lw	1.0	125	500-2000 [U14]
											Fd	0.8		
											Others	0.6		
1062275	UWRMF3	**IDFdk5**	111	Sx	Pl	1000	500	400	2.0	4	Pl	1.0	125	500-2000 [U14]
											Sx	0.6		

** described in LMH 70

Superscript footnotes contain additional information or requirements

BECv11 - Rocky Mountain Natural Resource District Stocking Standards

ROCKY MT STOCKING STANDARD ID #	NAME	BGC Classification Zone/SZ	Series	Regeneration Species Conifer Preferred (p)	Acceptable (a)	Stocking(i) Target (well-spaced/ha)	MIN pa	MIN p	Min Intertree Distance	Regen Delay (Max yrs)	Free Growing Min. Height Species	Ht (m)	Tree Ht to Brush (min%)	Post Spacing Max Range (sph)
1062276	UWRMF4	IDFdm2	101[U18]	Fd Lw Py[14,203]	Pl[200]	1000	500	400	2.0	7	Pl,Lw	1.0	125	500-2000 [U14]
											Fd	0.8		
											Py	0.6		
1062277	UWROF12	IDFdm2	101[U19]	Fd Lw Py[14,203]	Pl[200]	[U8]	76[U10]	[U20]	2.0 [74]	-	All	0.5	125	400[U14]
1062278	UWROR4	IDFdm2	102	Fd Py		[U9]	[U10]	[U20]	2.0 [74]	-	All	0.5	125	75[U14]
1062279	UWROF13	IDFdm2	103	Fd[27] Py	Lw	[U8]	76[U10]	[U20]	2.0 [74]	-	All	0.5	125	400[U14]
1062280	UWROF14	IDFdm2	104.1	Fd Py Lw[10,13]	Pl	[U8]	76[U10]	[U20]	2.0 [74]	-	All	0.5	125	400[U14]
1062281	UWRMF5	IDFdm2	104.2	Fd Py Lw[10,13]	Pl	1000	500	400	2.0	7	Pl,Lw	1.0	125	500-2000 [U14]
											Fd	0.8		
											Py	0.6		
1062282	UWRMF6	IDFdm2	110	Fd[32] Lw[32] Sx[201]	Pl	1000	500	400	2.0	7	Pl,Lw	1.0	125	500-2000 [U14]
											Fd	0.8		
											Sx	0.6		
1062283	UWRMF7	IDFdm2	111	Fd[1,32] Lw[1,32] Sx[201]	Pl	1000	500	400	2.0	7	Pl,Lw	1.0	125	500-2000 [U14]
											Fd	0.8		
											Sx	0.6		
1062284	UWRMF8	IDFdm2	112	Sx[1]		1000	500	400	2.0	4	All	0.6	125	500-2000 [U14]
1062285	UWROF15	IDFxk	101	Fd Py[203]		[U8]	76[U10]	[U20]	2.0 [74]	-	All	0.5	125	400[U14]
1062286	UWROR5	IDFxk	102	Fd Pf[201]		[U9]	[U10]	[U20]	2.0 [74]	-	All	0.5	125	75[U14]
1062287	UWROF16	IDFxk	103	Fd Py[203]		[U8]	76[U10]	[U20]	2.0 [74]	-	All	0.5	125	75[U14]
1062288	UWROF17	IDFxk	110	Fd	Py[203]	[U8]	76[U10]	[U20]	2.0 [74]	-	All	0.5	125	400[U14]
1062289	UWROF18	IDFxk	111	Sx	Fd[1]	[U8]	76[U10]	[U20]	2.0 [74]	-	All	0.5	125	400[U14]
1062290	UWROF19	IDFxk	112	Sx Fd	Pl	[U8]	76[U10]	[U20]	2.0 [74]	-	All	0.5	125	400[U14]
1062291	UWROF20	IDFxk	113	Sx[1]		[U8]	76[U10]	[U20]	2.0 [74]	-	All	0.5	125	400[U14]
1062292	UWROF21	IDFxx2	101	Py Fd[27]		[U8]	76[U10]	[U20]	2.0 [74]	-	All	0.5	125	75[U14]
1062293	UWROR6	IDFxx2	102	Py Fd[27]		[U9]	[U10]	[U20]	2.0 [74]	-	All	0.5	125	75[U14]
1062294	UWROR7	IDFxx2	103	Py Fd[27]		[U9]	[U10]	[U20]	2.0 [74]	-	All	0.5	125	75[U14]
1062295	UWROR8	IDFxx2	104	Py Fd[27]		[U9]	[U10]	[U20]	2.0 [74]	-	All	0.5	125	75[U14]
1062296	UWROF22	IDFxx2	110	Fd	Lw Py	[U8]	76[U10]	[U20]	2.0 [74]	-	All	0.5	125	400[U14]
1062297	UWROF23	IDFxx2	111	Fd Lw	Sx	[U8]	76[U10]	[U20]	2.0 [74]	-	All	0.5	125	400[U14]
1062298	UWROF24	IDFxx2	112	Sx[1]		[U8]	76[U10]	[U20]	2.0 [74]	-	All	0.5	125	400[U14]

** described in LMH 70

Superscript footnotes contain additional information or requirements

Rocky Mountain Natural Resource District FSP Stocking Standard Definitions and Footnotes

Definitions

Conifer Tree Species

"Ba" means amabilis fir;
"Bg" means grand fir;
"Bl" means subalpine fir;
"Bp" means noble fir;
"Cw" means western red cedar;
"Fd" means Douglas-fir;
"Hm" means mountain hemlock;
"Hw" means western hemlock;
“Lt” means tamarack;
"Lw" means western larch;
“Pa” means whitebark pine;
"Pl" means lodgepole pine;
"Pw" means white pine;
"Py" means ponderosa pine;
“Sb” means black spruce;
“Se” means Engelmann spruce;
"Ss" means Sitka spruce;
“Sw” means white spruce;
"Sx" means hybrid spruce or interior spruce;
"Sxs" means hybrid Sitka spruce;
“Sxw” means hybrid white spruce;
"Yc" means yellow cedar.

Broadleaf Tree Species

“Acb” means balsam poplar;
“Act” means black cottonwood;
“At” means trembling aspen;
“Dr” means red alder;
“Ep” means common paper birch;
“Mb” means bigleaf maple;
“Qg” means garry oak;
“Ra” means arbutus;

“Biogeoclimatic unit” or “BGC classification” means the zone, subzone, variant and site series described in the most recent field guide published by the Ministry of Forests for the identiication and interpretation of ecosystems, as applicable to a harvested area.

Footnote #	Footnote
1	suitable on elevated microsites
2	retired July 2017
3	suitable on coarse-textured soils
4	suitablemedium-textured soils
5	footnote retired
6	suitable on nutrient-very-poor sites
7	suitable on nutrient-medium sites
8	suitable on steep slopes
9	suitable on warm aspects
10	suitable on cool aspects
11	suitable on crest slope positions
12	suitable on cold air drainage sites
13	suitable at upper elevations
14	suitable at lower elevations
15	suitable in the northern portion of biogeoclimatic unit
16	suitable in the southern portion of biogeoclimatic unit
17	suitable in the western portion of biogeoclimatic unit
18	suitable in the eastern portion of biogeoclimatic unit
19	retired July 2017
20	retired July 2017
21	retired July 2017
22	suitable in the southern Gardner Canal-Kitlope area
23	retired July 2017
24	suitable in wetter portion of biogeoclimatic unit
25	retired July 2017
26	suitable minor species on nutrient poor sites
27	partial high-canopy shade required for succesful establishment
28	limited by moisture deficit
29	risk of heavy browsing by moose
30	retired November 2010
31	must use of blister rust resistant stock. See BC Journal of Ecosystems and Management 10(1): 97-100 for supplementary information.
32	limited by growing-season frosts
33	footnote retired and replaced with footnote 'a'
34	risk of snow damage
35	use resistant stock to mitigate risk of spruce weevil damage - See Ss Weevil Decision Tool: http://pubs.cif-ifc.org/doi/abs/10.5558/tfc2013-042
46	use resistant seedlot south of the Dean Channel
47	risk of balsam wooly adelgid within quarantine area see http://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/animals-and-crops/plant-health/insects-and-plant-diseases/nursery-and-ornamentals/balsam-woolly-adelgid
48	risk of browsing by deer
49	retired November 2010
50	restricted to sites where the species occurs as a major species in a pre-harvest, natural stand
51	retired July 2017
52	suitable on sheltered microsites with deep soil
53	minor component
54	retired July 2017
55	retired July 2017

#	Broadleaf Management Constraints
a	productive, reliable, and feasible regeneration option
b	limited in productivity, reliability and/or feasibility

#	Localized Footnotes
56	retired July 2017
57	retired November 2010
58	**South Area** - Fd limited to a max 50% of preferred and acceptable well-spaced stems in the IDFmw and all subzones of the ICH due to root rot. See Root Rot Handbook (2017, in press)
59	**Prince George region** - max 1,400 total sph of aspen and cottonwood. Treat as 'ghost' trees in surveys.
60	retired July 2017
61	retired July 2017
62	retired November 2010
63	retired July 2017
66	Mackenzie forest district - may be preferred where risk of snow damage is low or risk of frost damage is excessive on spruce
67 & 68	Retired July 2017
69 & 70	Retired July 2017
74	Layer 1 trees may be tallied regardless of spacing providing they meet free growing damage criteria.

Version 4.0; Aug. 21, 2018

Rocky Mountain Natural Resource District FSP Stocking Standard Definitions and Footnotes

"**MIN** or "**Min**" means minimum.

MITD means Minimum inter-tree distance in meters.

Max means maximim.

36 retired July 2017

37 retired November 2010

38 footnote retired

39 retired July 2017

40 risk of redheart damage in areas subject to cold winter outflow

41 limited by poorly drained soils

42 suitable on sites with a fresh soil moisture regimes

43 retired July 2017

44 suitable in areas of the subzone variant with relatively strong maritime influence

45 suitable in areas of the subzone variant with relatively strong continental influence

200 Pl can be moved from Acceptable to Preferred, to the extent specified below, only on sites where there is a low risk of damage from forest health factors:
• where there is > 50% Pl in the pre-harvest stand, Pl can be moved to preferred;
• where there is 25-50% Pl in the pre-harvest stand, Pl can be moved to preferred to a maximum of 50% well-spaced stems.
For areas with less than 25% Pl in the pre-harvest stand, or where risk of damage from forest health factors is moderate or high, Pl remains acceptable.

201 Maximum 50% of preferred and acceptable well-spaced trees

202 No advance regeneration in even aged stand management

203 Recommended on sites for climate change adaptation

204 Not recommended due to climate change concerns

205 limited by cold temperatures

206 plant on exposed mineral soils

207 obstacle planting recommended

208 Bl advanced regeneration can be counted as well-spaced only where it meets the following criteria at FG in even-aged management:

- apical dominance > 1 (as measured by comparing ratio of leader height to length of most recent branch whorl) at FG; and
- 75% live crown; and
- no scars, forks, crooks, or sweeps, and;
- where it is < 1.5 m height at time of harvest.

#	Rocky Mountain UWR Order (U-4-006 & 008) Footnotes
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 varyfrom 0 to 75 stems/ha.
U14	FSP Max Density Standards and Section 8 of UWR Orders U-4-006, U-4-008 are used where applicable.
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.

Rocky Mountain Forest District Partial Cutting Stocking Standards

Version 2.0

April 1, 2010

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1. Preamble

This document outlines a set of standards and an approach for assessing regeneration and free-growing success for even-aged silviculture systems using partial cutting. These standards and approach are intended for stands being managed under a system with only a single planned partial cut harvest entry; retained stems contribute towards the stocking obligation.

Introduction of these standards serves to restrict the use of uneven-aged (multi-layered) stocking standards to areas prescribed for true single tree selection systems (multiple harvest entries).

The Partial Cutting Stocking standards described here are available for use on blocks partially harvested prior to the present date. The standards are to be used for those blocks harvested within the time era when harvesting was recommended or even restricted to a partial cut entry (eg. pine-only removal or for a non-timber objective).

It is acknowledged that the residual structures that would be expected using this approach for stocking assessment are below stocking levels and growth rates that would promote optimal timber production. It is noted that these structures will result in growth and yield losses relative to timber supply review (TSR) expectations, when they are retained for extended periods (Przeczek, 2002).

Subsequently, in the future, it is expected that residual basal areas will be less than 5 m^2/ha or greater than 20 m^2/ha following the initial harvest entry in most cases. The exceptional cases for which residual structures between 5 and 20 m^2/ha are applicable to these procedures are outlined in the Situations and Circumstances.

The following standards are an approximation and are to be reviewed periodically and revised as more experience is gained and better information becomes available.

2. Application of Partial Cutting Stocking Standards

2.1 Stands with < 5 m^2/ha Basal Area

Even-aged stocking standards apply to stands with an average basal area retention of less than 5 m^2/ha.

2.2 Stands with > 20 m^2/ha Basal Area Retention

Stands with an average basal area retention of greater than 20 m^2/ha are eligible for classification as an intermediate cut silviculture system. As per standard stratification requirements legislated under the FPPR s. 86(6) and outlined in the RESULTS Information Submission Specifications (Oct. 2008), areas greater than 1 ha that are below 20 m^2/ha must be identified, surveyed and managed as a separate stratum. Acceptable layer 1 trees need to comply with the attributes described for the long term retention in Table 4 of the Tree Wounding and Decay Guidebook. There is no initial silviculture obligation associated with intermediate cut silviculture systems; stands need to remain in a stable condition for two years before free growing can be declared. Loss of basal area during the two-year period may move these areas into the condition described in section 2.3 below.

2.3 Stands between 5 and 20 m^2/ha Basal Area

The following approach to defining and assessing stocking success in partial cut standards units apply to even-aged silvicultural systems that have retained between 5 and 20 m^2/ha of residual basal area. The potential growth losses that result from retaining such structures can be significant and should be considered in the next TSR.

Recommended stocking decisions are based on management objectives that are focussed toward the production of sawlog timber. Bancroft *et. al.* (2003) and Martin (2004) have completed the initial work associated with the "Deviation From Potential" approach to assessing stocking in complex partially cut stand structures; their work has been incorporated into this approach for the Rocky Mountain Forest District (RMFD).

2.3.1 Situations and circumstances

These structures will exist primarily in previously harvested blocks (blocks harvested prior to 2009). Use of the approach for blocks harvested in the future is restricted to the situations and circumstances defined below.

For areas that do not contribute to long term timber supply, (i.e. riparian reserve zones, environmentally sensitive areas, wildlife habitat areas, and wildlife tree patches) or areas where the contribution to timber supply is significantly reduced to account for non-timber values (i.e. riparian management zones with retention requirements, visually sensitive areas, and old growth management areas), stands may be managed between 5m^2/ha and 20 m^2/ha basal area to the extent necessary to meet the management objective while being mindful of the timber supply implications.

On rare occasions when blocks with primarily timber objectives are partially harvested, it is expected that this will be part of a silviculture system and the blocks will have another harvest entry within a 20-30 year timeframe (or less).

3. Assessment Procedures for Partial Cutting Stocking Standards

The Deviation from Potential (DFP) assessment methodology will form the basis for determining acceptable stocking status. Plot assessments will be conducted as per standard even-aged regeneration and free-growing assessments (i.e., stratification, sampling design/intensity, minimum strata size) with the following changes:

3.1 Layer 1 stems (≥ 12.5 cm dbh)

Tally stems by species and diameter class (5 or 10 cm classes are appropriate) using an appropriate prism. Initial indications suggest that a 3 - 5 BAF prism will provide reasonable data for most sites. Tally acceptable layer 1 stems because the DFP stocking decision requires all layer 1 stems to be of acceptable quality (refer to "Free growing damage criteria for multi-layered stands in B.C."). Tally moribund trees as a separate class but do not include them in basal area summaries for the stand.

All locally commercial layer 1 stems that meet acceptable quality criteria are considered to be preferred species.

3.2 Layers 2, 3, 4

Tally only those well spaced understory stems that are unimpeded (i.e., outside of the drip-line of overstory trees), and at free growing are unimpeded by vegetation.

Preferred and acceptable species are the same as RMFD even-aged stocking standards for layers 2-4.

At free growing the minimum height is 1.0 m or the minimum free growing height as per species and site series as per the even-aged stocking standards for RMFD.

3.3 Data Compilation

Compare the basal area (m^2) of overstory (OS) layer 1 trees and "unimpeded" well-spaced sph for each plot to Table 1 and record the corresponding DFP value.

The mean DFP and the proportion (%) of stocked, partially stocked and open plots[1] as defined by the relative position on Table 1, will be calculated for each stratum.

Table 1. Deviation from potential (DFP) stocking by understory tree density and overstory basal area.

OS Basal Area (m2/ha)	Well-spaced trees in plot								
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
0	1.00	0.76	0.52	0.34	0.22	0.13	0.07	0.03	0.0
1	0.98	0.74	0.51	0.34	0.21	0.13	0.07	0.03	0.0
2	0.96	0.73	0.50	0.33	0.21	0.13	0.07	0.03	0.0
3	0.93	0.71	0.49	0.32	0.20	0.12	0.07	0.03	0.0
4	0.90	0.68	0.47	0.31	0.20	0.12	0.06	0.03	0.0
5	0.86	0.65	0.45	0.30	0.19	0.11	0.06	0.02	0.0
6	0.82	0.62	0.43	0.28	0.18	0.11	0.06	0.02	0.0
7	0.77	0.58	0.40	0.27	0.17	0.10	0.05	0.02	0.0
8	0.72	0.55	0.38	0.25	0.16	0.09	0.05	0.02	0.0
9	0.67	0.51	0.35	0.23	0.15	0.09	0.05	0.02	0.0
10	0.62	0.47	0.32	0.21	0.14	0.08	0.04	0.02	0.0
11	0.57	0.43	0.30	0.20	0.12	0.07	0.04	0.02	0.0
12	0.52	0.39	0.27	0.18	0.11	0.07	0.04	0.01	0.0
13	0.47	0.35	0.24	0.16	0.10	0.06	0.03	0.01	0.0
14	0.42	0.32	0.22	0.15	0.09	0.05	0.03	0.01	0.0
15	0.38	0.28	0.20	0.13	0.08	0.05	0.03	0.01	0.0
16	0.33	0.25	0.17	0.11	0.07	0.04	0.02	0.01	0.0
17	0.29	0.22	0.15	0.10	0.06	0.04	0.02	0.01	0.0
18	0.26	0.19	0.13	0.09	0.06	0.03	0.02	0.01	0.0
19	0.22	0.17	0.12	0.08	0.05	0.03	0.02	0.01	0.0
20	0.19	0.14	0.10	0.07	0.04	0.02	0.01	0.01	0.0
21	0.16	0.12	0.08	0.06	0.04	0.02	0.01	0.00	0.0
22	0.13	0.10	0.07	0.05	0.03	0.02	0.01	0.00	0.0
23	0.11	0.08	0.06	0.04	0.02	0.01	0.01	0.00	0.0
24	0.09	0.07	0.05	0.03	0.02	0.01	0.01	0.00	0.0
25	0.07	0.05	0.04	0.02	0.02	0.01	0.00	0.00	0.0
26	0.05	0.04	0.03	0.02	0.01	0.01	0.00	0.00	0.0
27	0.04	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.0
28	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.0
29	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.0
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

Colour

Stocking Class

Growth Potential Opportunity

Open

High potential for additional volume growth

$\geq$ 41% Additional stocking is required

Partially Stocked

Moderate potential for additional volume production through additional stocking

21 – 40% Assess options, additional stocking may be required

Stocked

Low potential for additional growth through additional stocking

$\leq$ 20% No further treatments required

[1] NOTE: the % of plots calculation is a surrogate for the % of area. If the proportion or distribution of plots does not reflect the area for each DFP stocking class the calculation will be incorrect and another approach to estimating proportional area will have to be documented and applied.

3.4 Timing of Assessment

Time frames for the assessment will default to even-aged regeneration delay and free growing delay periods.

4. Decision Rules

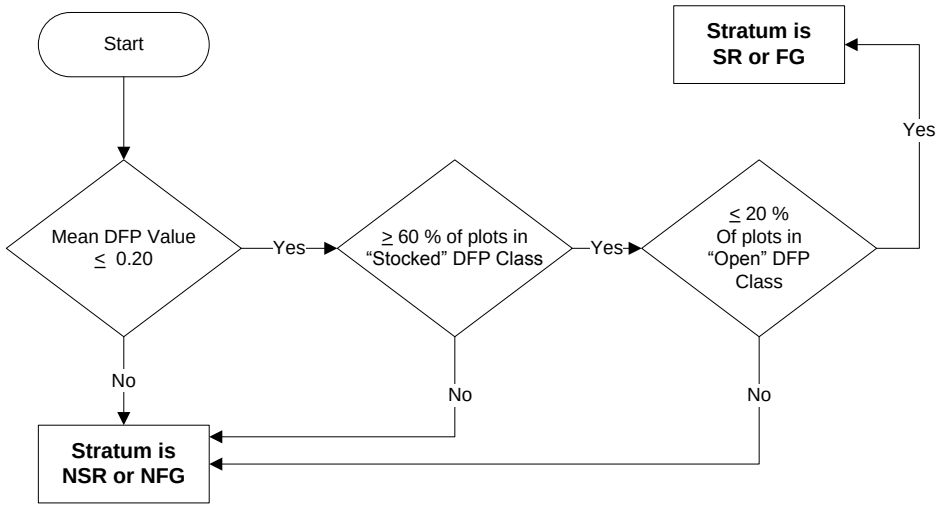
4.1 Stocking Standards

The following rules apply when assessing stands using the DFP method:

- DFP criteria
  - DFP must be $\leq$0.2; and
  - $\geq$ 60% of plots must be 'stocked'; and
  - $\leq$ 20% of plots can be 'open'
- Overstory (Layer 1) trees
  - No minimum inter-tree distance (MITD)
  - All live trees must meet acceptability criteria ("Free growing damage criteria for multi-layered stands in B.C.")
- Understory Unimpeded Well-spaced (Layer 2-4) trees
  - Must be outside the dripline of Layer 1 trees; AND
  - have a MITD of 2 m; AND
  - to be free-growing, must be unimpeded by vegetation (herbaceous or shrubs overtopping the stem)[2]
- Preferred species
  - > 50% tallied stems in a plot

[2] To be unimpeded, understory trees must not be in imminent danger of mortality from understory vegetation competition or mechanical damage (e.g. snow press).

Figure 1. Stocking decision flowchart.



Notes: Many of the NSR stands will have clumped, irregular stocking patterns and the amount of overstory will limit the potential for augmenting stocking through planting. All NSR strata ≥ 1.0 ha, that are not under significant overstory influence, should be reforested.

Other NSR strata will likely require additional harvesting treatments before stocking levels can be augmented. Planting species with low or moderate shade tolerance in the shade of a significant over-story for the purpose of arbitrarily meeting these partial cut stocking standards is not acceptable.

Table 2. Summary of partial cutting stocking standards for the Rocky Mountain Forest District.

Deviation from Potential (DFP) Criteria			**General Criteria**	
Maximum Mean DFP	**Maximum % Partially Stocked Plots**	**Maximum % Open Plots**	**Min. Intertree Distance[1]**	**Acceptability Criteria**
0.20	40	20	Layer 1: n/a Layer 2,3 and 4: 2.0 m + outside drip line of overstory trees	Refer to "Free Growing Damage Criteria for Multi-Layered Stands in British Columbia, 2007" or as amended over time

Notes:

1. No minimum intertree distance will be applied to layer 1 stems; layer 2, 3 and 4 stems must be outside the dripline of overstory trees and a 2.0 minimum intertree distance from all other stems (layer 1-4) will apply.

4.2 Tree Acceptability Criteria

Table 3 provides a summary of the standards for tree acceptability for regeneration and free-growing assessments.

Table 3. Tree acceptability criteria for the proposed stocking assessment procedure.

Tree Acceptability Criteria	Regeneration Assessment	Free-growing Assessment
Species	All commercial layer 1 stems will be considered as preferred species. Preferred and acceptable species for the site as per current even-aged stocking standards for other layers.	All commercial layer 1 stems will be considered as preferred species. Preferred and acceptable species for the site as per current even-aged stocking standards for other layers.
MSS_p	Preferred species $\geq$ 50% of the well-spaced stocking	Preferred species $\geq$ 50% of the free-growing stocking
Health	Healthy	See: Free growing damage criteria for multi-layered stands in B.C.
Brush		Appropriate conifer/brush ratio (ETFG Guidebook, Appendix 9)
Height		1 m or the minimum free-growing height as per species & site series
Advanced Regeneration		See: Free growing damage criteria for multi-layered stands in B.C.

5. Submission Requirements

Because the data collected is not standard as per the normal RESULTS data submissions, it is expected that licensees will provide the average basal area, mean DFP value, and the proportion of plots 'stocked' and 'open' in an attachment in RESULTS when declaring a standards unit.

6. References

Bancroft, Bryce, Ken Day, Pat Martin, Kim Peel and Ken Zielke. 2003. *Partially Cut: Occupied or Not? What are my options? – A proposed survey approach*. . Unpubl. FIA Rep. for Lignum Limited.

B.C. Ministry of Forests. 2000. *Establishment to free growing guidebook*. Nelson Forest Region. Rev. ed., Version 2.2. For. Prac. Br., B.C. Min. For., Victoria, B.C. Forest Practices Code of British Columbia Guidebook.

Martin, Pat. 2004. *Second approximation of the deviation from potential table*. Unpubl. Information Sheet. 17pp.

Przeczek, John E. 2002. *Partial Cutting Effects Study: Modeling with Prognosis^{BC} and TASS to Assess Partial Cutting Impacts on Yield in the Invermere T.S.A.*. Unpubl. FIA Rep. for Slocan Forest Products Ltd. and Tembec Industries Ltd. 21 pp. + append.

General:

The following stocking standard policy and associated Fire Management Stocking Standard identification number (SSID) is to facilitate harvest operations under license agreement when partial harvesting to reduce the likelihood of crown fire and associated fast-moving, high intensity ground fire as per *Fire Management Stocking Standards Guidance Document, V1 2016* https://www.for.gov.bc.ca/hfp/silviculture/Fire%20Management%20Stocking%20Standards%20Guidance%20%20Document%20March%202016.pdf. The complete set of principles and guidance from the 2016 guidance document apply despite not all being reiterated within this general document.

This stocking standard is specific to partial cutting for shaded fuel breaks and as such is appropriate only where existing stand structure is conducive. It is acknowledged that where commercial value cannot be achieved or where densities of existing ladder fuels are such that the following targets would be cost-prohibitive, other avenues for treatment may be required.

Even-aged fire management stocking standards will be developed under unique SSID's. Landscape level fuel breaks will also be discussed further before stocking standard options are designed.

It is anticipated that details within fire management plans (FMP) will increase over time and that the following methodology will be revised. It is anticipated that this initial version of a Partial Cut Fire Management Stocking Standard will be applied to the highest priority areas as identified by developed plans or to areas immediately adjacent to existing communities. Areas outside the following set of criteria are to have the District Default FSP Stocking Standards applied.

Application Situation or Circumstance:

- Wildland urban interface (WUI)
- Or where hazard/threat and consequences warrant, up to 2 km of:
    - High value infrastructure or
    - High resource value as identified in District FMP

General Considerations/Methodology:

Goals of a Shaded Fuel Break

The main goals of a shaded fuel break are to reduce probability of active crown fire, and to reduce the rate of fire spread relative to a clear-cut scenario. Treatments should be designed to achieve these objectives during 97th percentile fire weather conditions.

- The post-harvest stand should have a wildfire threat rating not exceeding "Moderate" (http://www.ubcm.ca/assets/Funding~Programs/LGPS/SWPI/Resources/swpi-WUI-

WTA-worksheet-2012-Update.pdf - NB: currently being revised), however achieving a lower level of threat is appropriate in many areas within the Wildland Urban Interface.

- For areas closest to values at risk (0-600 m), a higher standard of fire resiliency should be designed and implemented to reduce the risk of active crown fire **and** intermittent crown fire, and reduce the rate of spread. (eg, lower crown closure, high crown base heights, higher percentage of deciduous, full surface fuel clean-up, etc.). For areas further from values at risk (600-2000 m), a gradation in standards may be suitable (eg crown closure may be higher, higher percentage of conifers, slightly more surface fuels, etc.), provided fire management objectives are achieved.

Stand Structure Conducive to Shaded Fuel Break

- The stand proposed for treatment has sufficient mature, windfirm, fire resilient species (ie., Lw, Py, Fd, At, Ac, Ep)

- Where there are non-windfirm stands or other tree silvics or disease/insect issues that are 'not' suitable for a shaded fuel break (eg mature Pl stands), even-aged fire management stocking standards should be applied (NB: *under development*).

Target Specifications for a Shaded Fuel Break

- Retain larger mature stems of the most fire resilient species (Lw, Py, At, Ac, Ep, Fd)
- Reduce surface fuels to very low levels (http://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/forestry/wildfire-management/fire-fuel-management/hazard-assessment-abatement/bcws_hazard_assessment_abatement_guide.pdf NB: Currently under revision)
- Increase crown base height (retain stems with high crown base height)
- Decrease stand density such that there is sufficient distance between fully mature crowns to preclude active crown fire, while retaining sufficient mature fire resilient trees to create a SHADED fuel break (reduce wind speed and temperature, increase relative humidity, reduce grass and shrub production).

    - Consideration should also be given to how the residual stand will develop over time and the initial entry should be designed to minimize the amount of future maintenance required (eg. inter-crown spacing should consider the implications of crown expansion over time).

Other Considerations for a Shaded Fuel Break:

- The size, width, and orientation of the treatment area should consider the following factors:
    - Logical boundaries from a fire management perspective (i.e. logical burn unit, anchored to non-fuel areas, effective for fire suppression, etc.),
    - Sufficient width to alter fire behaviour and reduce spotting risk to adjacent values
    - Fire hazard and threat of adjacent stands
    - Complementary land use objectives (eg. Ecosystem Restoration)
    - Topographical conditions
    - Predominant fire season winds
    - Other factors

Application of Stocking Standard:

Because of the high degree of variability of stand and site conditions and the complex interaction between fuel and fire within given environments, it is expected that there may be a fair degree of variability in suitable target (min and maximum) number of stems retained within shaded fuel breaks. It is expected that resultant stand structure be designed specifically for the site and environmental conditions given the complexity of issues to be considered.

To provide the necessary flexibility, this methodology for describing a shaded fuel break, is associated with a SSID that has been entered into RESULTS data system with minimal content (SSID= 1050163). Shaded fuel breaks have no regeneration obligations however, stand structure targets and considerations mentioned within this document are required pieces of the 'standard'. It is expected that the resulting post-harvest stand have a wildfire threat rating not exceeding "Moderate".

RESULTS Reporting:

As per the RESULTS Information Submission Specifications for licensees, proponents are required to submit standard: Opening Definition, Stocking Standard, Activity and Forest Cover. Table 1 outlines the information required to update the Forest Cover "inventory". BC Wildfire Service may provide some additional coding to use (*in development*).

Table 1. Forest cover 'inventory component' field specifications.

Field	Description
Layer	Code that characterizes a distinct canopy cohort within a polygon containing a common forest cover structure with stems of similar ages and heights. If create a non-layered, even-aged stand, can use I for Inventory.

Crown Closure	Percentage of ground area covered by the vertically projected crowns of the tree cover
Total Stems	Total number of stems per hectare within the forest cover polygon
Basal Area	Average cross-sectional residual basal area (m2) per hectare of all stems ≥ 12.5 cm dbh
Species	Code representing the tree species within the polygon
Species Percent	Estimate of given inventory component tree species percentage within polygon (summing to 100)
Average Age	In years
Average Height	In meters
Damage Agent	Insect, disease, or other factor that has caused tree damage within the polygon
Incidence Percent	Percent of host species within the polygon impacted by the given damage agent
Incidence Area	Number of hectares affected by the given damage agent

J. Harry Mitchell, RPF
District Manager
Rocky Mountain Resource District

Future Modifications:

A 'community of practice' should be established to share learnings and to modify this standard over time.

Work is ongoing to provide a series of modelling scenarios to describe a variety of conditions that are common within the District. This set of information will serve as useful reference in future treatment designs.

Introduction to the Worksheets found in this Document. April 1, 2018

Relevant Provincial History

Amendment Log

Mar 15/07 - For the purposes of the Forest Planning and Practices Regulation section 46 (2) where appropriate and practicable;
a) areas will be reforested with a mixture of desirable species, and
b) on sites with more than one "preferred" species more than one preferred species (and where practicable, all of the preferred species) will be planted.

Nov 12/10 Forest health footnotes updated.

Jan 17/14 Ecologically based climate change recommendations were added where considered applicable. Added as a green shaded row beneath previous guidance.
Previous guidance that is unchanged remains in black font, changes are in red, where a species was removed from a category it has a line through it.
Where as species was added to a unit it was highlighted in red. Where footnotes were modified the species and footnotes were highlighted in red.
See the companion document UPDATES TO THE REFERENCE GUIDE FOR FDP STOCKING STANDARDS (2014): CLIMATE-CHANGE RELATED STOCKING STANDARDS

Aug 31/16 South Central Columbia Mountains tab added for new ecological classifcation in Land Management Handbook 70 and Temporary Supplement.

Jul 15/17 Species recommendations for South Central Columbia Mountains updated. IDFxh4 added to Nelson tab for Land Management Handbook 20 Supplement number 1. Footnotes updated. CWH wh1 and wh2 removed from Vancouver Region tab as they only occur in Haida Gwaii.

Please read through the Worksheets in Sequence.

Worksheets Included in this document.

The following worksheets are included with this workbook (see tabs at the bottom of the screen):

Provincial Comments/ History - introductory material including the background and purpose of the reference guide, how to use the guide, additional reference standards, and instructions on using some Excel features associated with the guide.

Introduction to Selkirk District (DSE) South Columbia - reference guide.

South Central Columbia Mountains Stocking Stanards - Includes **Stocking standards for Arrow, Boundary, and Kootenay Lake TSA's** -includes areas for LMH 70, it's "Supplement" and old BEC areas. ie. one set of complete standards for the 3 TSA's.

Multilayer/Single tree selection standards -example numbers. -these have been incorporated into the South Central Columbia standards.

Footnotes- includes, Provincial footnotes, and footnotes localized/adapted to Selkirk District.

Retired Footnotes.-record of old footnotes, that as of April 1, 2018 are no longer in effect.

Other:

Existing approved silviculture prescriptions continue. Licensees do not need to update the stocking standards for existing silviculture prescriptions for either the hard copy SP, or update RESULTS. However, if a licensee chooses to update to the SS dated April 1, 2018, that is at their discretion.

Trees must be the greater than the approved minimum inter-tree distance apart in order to be well spaced:

Minimum inter-tree distance (m)	Location/condition
1.7	Fill planting or planting on mechanically site prepared areas in the S Central Columbia Mountains
2	All other areas (except those areas where site factors or objectives require a different minimum inter-tree distance)

Height of Trees Above Brush

In addition to being at least the required minimum height, trees must be greater than the approved minimum percentage height above brush in order to be free growing:

% Ht above brush	Location/condition
125%	BG ESSF IDF MH MS PP BGC zones
150%	all other areas

Comments specific to DSE South Columbia default standards

1)Early Free Growing

Has been left in for information purposes only.
In RESULTS it is in the Comments section only and does not preculde making FG declarations eary.

2) MultiLayer / Single Tree Selection standards

In this document, only the corresponding Layer 4 information shows.
**For the Layer 1-3 information see either RESULTS, or the table at the end of this workbook*

3) Three red dots

Three red dots indicate that the ssid number "skips" and is nonsequential (both in this document and in RESULTS). However, there are no missing Stocking Standard ID's in between the two.

4) Even aged standards : use where even aged layer 4 will be the next crop and where Layers 1/2 combined are
Multi-layer/single tree selection: use for uneven-aged systems where retention in Layers 1/2 combined is between 1
*18m2.ha for the drybelt, 22 m2/ha for the wetbelt
In**termediate cut standards (not in this document, but are pending)** For even aged management, where the comb

5) Criteria for Layer 4, Balsam fir advance regen is currently included in the "Baseline" ssids, and ssids with modified mitd, and in the multlayer/single tree selection standards. **IGNORE them for the multilayer/single**

DSE South Columbia Default Stocking Standards Version 1.0 April 1, 2018

BGC Classification					Regeneration Guide		Stocking			Free Growing Guide: Regen Delay	Assessment			Min. Height		MITD
							Target	Min pa	Min p		Earliest	Latest	Brush	Species	Ht	
Zone/SZ	Series	Regime name	Standards ID	SS Name	Preferred (p)	Acceptable (a)	ll-spaced/ha)			(Max yrs)	(yrs)	(yrs)			(m)	
The following stocking standards are for South (Central) Columbia per LMH 70																
ESSFdc1	101	ESSFdc1_101_mitd_2.0	1056919	BlSe – Rhododendron – Valerian	$Bl^{201,500}$ Sx	Pl	1200	700	600	4	12	20	125	Pl	1.6	2.0
														Others	0.8	
	101	ESSFdc1_101_mitd_1.7	1056920	BlSe – Rhododendron – Valerian	$Bl^{201,500}$ Sx	Pl	1200	700	600	4	12	20	125	Pl	1.6	1.7
														Others	0.8	
	101	ESSFdc1_101_multilayer	1056921	BlSe – Rhododendron – Valerian	$Bl^{201,500}$ Sx	Pl	1200	700	600	4	12	20	125			2.0
	102	ESSFdc1_102	1056922	BlPl – Huckleberry	Sx Pl $Pa^{13,201}$	Bl^{500}	1000	500	400	7	15	20	125	Pl	1.2	2.0
														Others	0.6	
	102	ESSFdc1_102_multlilayer	1056923	BlPl – Huckleberry	Sx Pl $Pa^{13,201}$	Bl^{500}	1000	500	400	7	15	20	125			2.0
	103	ESSFdc1_103_mitd_2.0	1056924	BlPl – Falsebox – Grouseberry	Sx Pl $Pa^{13,201}$	Bl^{500}	1200	700	600	7	15	20	125	Pl	1.6	2.0
														Others	0.8	
	103	ESSFdc1_103_mitd_1.7	1056925 *** ***	BlPl – Falsebox – Grouseberry	Sx Pl $Pa^{13,201}$	Bl^{500}	1200	700	600	7	15	20	125	Pl	1.6	1.7
														Others	0.8	

103	ESSFdc1_103_multilayer	1056928	BlPl – Falsebox – Grouseberry	Sx Pl Pa[13,201]	Bl[500]	1200	700	600	7	15	20	125			2.0
104	ESSFdc1_104_mitd_2.0	1056929	Bl – Rhododendron – Grouseberry	Pl Sx	Bl[500]	1200	700	600	4	12	20	125	Pl	1.6	2.0
													Others	0.8	
104	ESSFdc1_104_mitd_1.7	1056930	Bl – Rhododendron – Grouseberry	Pl Sx	Bl[500]	1200	700	600	4	12	20	125	Pl	1.6	1.7
													Others	0.8	
104	ESSFdc1_104_multilayer	1056931	Bl – Rhododendron – Grouseberry	Pl Sx	Bl[500]	1200	700	600	4	12	20	125			2.0
110	ESSFdc1_110_mitd_2.0	1056932	BlSe – Rhododendron – Hellebore	Bl[500] Sx		1200	700	600	4	12	20	125	All	0.8	2.0
110	ESSFdc1_110_mitd_1.7	1056933	BlSe – Rhododendron – Hellebore	Bl[500] Sx		1200	700	600	4	12	20	125	All	0.8	1.7
110	ESSFdc1_110_multilayer	1056934	BlSe – Rhododendron – Hellebore	Bl[500] Sx		1200	700	600	4	12	20	125	All	0.8	2.0
111	ESSFdc1_111_mitd_2.0	1056935	Bl – Valerian – Foamflower	Bl[32,500] Sx[32]		1200	700	600	4	12	20	125	All	0.8	2.0
111	ESSFdc1_111_mitd_1.7	1056936	Bl – Valerian – Foamflower	Bl[32,500] Sx[32]		1200	700	600	4	12	20	125	All	0.8	1.7
111	ESSFdc1_111_multilayer	1056937	Bl – Valerian – Foamflower	Bl[32,500] Sx[32]		1200	700	600	4	12	20	125	All	0.8	2.0
112	ESSFdc1_112	1056938	Se – Horsetail – Globeflower	Bl[1,32,500] Sx[1,32]		1000	500	400	4	12	20	125	All	0.6	2.0

	112	ESSFdc1_112_multilayer	1056939	Se – Horsetail – Globeflower	$Bl^{1,32,500}$ $Sx^{1,32}$		1000	500	400	4	12	20	125	All	0.6	2.0
ESSFdcw	101	ESSFdcw_101_mitd_2.0	1056940	Bl – Valerian – Wood–rush	Bl^{500} Sx		1200	700	600	4	12	20	125	All	0.8	2.0
	101	ESSFdcw_101_mitd_1.7	1056941	Bl – Valerian – Wood–rush	Bl^{500} Sx		1200	700	600	4	12	20	125	All	0.8	1.7
	101	ESSFdcw_101_multilayer	1056942	Bl – Valerian – Wood–rush	Bl^{500} Sx		1200	700	600	4	12	20	125			2.0
	102	ESSFdcw_102	1056943	BlPa – Grouseberry	Bl^{500} Sx Pa^{201}	Pl^{34}	1000	500	400	7	15	20	125	Pl Others	1.2 0.6	2.0
	102	ESSFdcw_102_multilayer	1056944	BlPa – Grouseberry	Bl^{500} Sx Pa^{201}	Pl^{34}	1000	500	400	7	15	20	125			2.0
	103	ESSFdcw_103_mitd_2.0	1056945	Bl – Rhododendron – Grouseberry	Bl^{500} Sx	Pa	1200	700	600	7	15	20	125	All	0.8	2.0
	103	ESSFdcw_103_mitd_1.7	1056946	Bl – Rhododendron – Grouseberry	Bl^{500} Sx	Pa	1200	700	600	7	15	20	125	All	0.8	1.7
	103	ESSFdcw_103_multilayer	1056947	Bl – Rhododendron – Grouseberry	Bl^{500} Sx	Pa	1200	700	600	7	15	20	125			2.0
	110	ESSFdcw_110	1056948	Bl – Valerian – Hellebore – Globeflower	Bl^{500} Sx		1000	500	400	4	12	20	125	All	0.6	2.0
	110	ESSFdcw_110_multilayer	1056949	Bl – Valerian – Hellebore – Globeflower	Bl^{500} Sx		1000	500	400	4	12	20	125			2.0

ESSFmh	101	ESSFmh_101_mitd_2.0	1056950	BlSe – Rhododendron – Foamflower	$Cw^{14,34,203}$ Bl^{500} $Lw^{9,14,34}$ Sx	Pl^{34} $Hw^{9,14}$ $Fd^{9,14}$ $Pw^{9,14,31}$	1200	700	600	4	12	20	125	Lw, Pw, Pl Fd Others	2.0 1.4 1.0	2.0
	101	ESSFmh_101_mitd_1.7	1056951	BlSe – Rhododendron – Foamflower	$Cw^{14,34,203}$ Bl^{500} $Lw^{9,14,34}$ Sx	Pl^{34} $Hw^{9,14}$ $Fd^{9,14}$ $Pw^{9,14,31}$	1200	700	600	4	12	20	125	Lw, Pw, Pl Fd Others	2.0 1.4 1.0	1.7
	101	ESSFmh_101_mitd_multilayer	1056952	BlSe – Rhododendron – Foamflower	$Cw^{14,34,203}$ Bl^{500} $Lw^{9,14,34}$ Sx	Pl^{34} $Hw^{9,14}$ $Fd^{9,14}$ $Pw^{9,14,31}$	1200	700	600	4	12	20	125			2.0
	102	ESSFmh_102	1056953	FdPl – Juniper – Falsebox	Fd^{9} Lw^{9} Pl	Sx Bl^{500} Pa^{13}	1000	500	400	7	15	20	125	Lw, Pl Fd Others	1.6 1.2 0.8	2.0
	102	ESSFmh_102_multilayer	1056954	FdPl – Juniper – Falsebox	Fd^{9} Lw^{9} Pl	Sx Bl^{500} Pa^{13}	1000	500	400	7	15	20	125			2.0
	103	ESSFmh_103_mitd_2.0	1056955	BlFd – Huckleberry – Falsebox	Fd Lw Pl^{34} Sx	Cw Bl^{500} $Pw^{14,31}$	1200	700	600	7	15	20	125	Lw, Pw, Pl Fd Others	2.0 1.4 1.0	2.0
	103	ESSFmh_103_mitd_1.7	1056956	BlFd – Huckleberry – Falsebox	Fd Lw Pl^{34} Sx	Cw Bl^{500} $Pw^{14,31}$	1200	700	600	7	15	20	125	Lw, Pw, Pl Fd Others	2.0 1.4 1.0	1.7
	103	ESSFmh_103_multilayer	1056957	BlFd – Huckleberry – Falsebox	Fd Lw Pl^{34} Sx	Cw Bl^{500} $Pw^{14,31}$	1200	700	600	7	15	20	125			2.0

104	ESSFmh_104_mitd_2.0	1056958	BlPl – Falsebox – Grouseberry	Sx Pl^{34}	Bl^{500}	1200	700	600	4	12	20	125	Pl Others	2.0 1.0	2.0
104	ESSFmh_104_mitd_1.7	1056959	BlPl – Falsebox – Grouseberry	Sx Pl^{34}	Bl^{500}	1200	700	600	4	12	20	125	Pl Others	2.0 1.0	1.7
104	ESSFmh_104_multi-layer	1056960	BlPl – Falsebox – Grouseberry	Sx Pl^{34}	Bl^{500}	1200	700	600	4	12	20	125			2.0
105	ESSFmh_105_mitd_2.0	1056961	BlCwLw – Queen's cup	Fd^{9} Lw^{9} Pl^{34} Sx	Cw^{9} Bl^{500} Pw^{31}	1200	700	600	4	12	20	125	Lw, Pw, Pl Fd Others	2.0 1.4 1.0	2.0
105	ESSFmh105_mitd_1.7	1056962	BlCwLw – Queen's cup	Fd^{9} Lw^{9} Pl^{34} Sx	Cw^{9} Bl^{500} Pw^{31}	1200	700	600	4	12	20	125	Lw, Pw, Pl Fd Others	2.0 1.4 1.0	1.7
105	ESSFmh105_multilayer	1056963	BlCwLw – Queen's cup	Fd^{9} Lw^{9} Pl^{34} Sx	Cw^{9} Bl^{500} Pw^{31}	1200	700	600	4	12	20	125			2.0
110	ESSFmh_110_mitd_2.0	1056964	Bl – Rhododendron – Oak fern	Bl^{500} Sx	$Hw^{14,32}$ $Cw^{14,32}$	1200	700	600	4	12	20	125	All	1.0	2.0
110	ESSFmh_110_mitd_1.7	1056965	Bl – Rhododendron – Oak fern	Bl^{500} Sx	$Hw^{14,32}$ $Cw^{14,32}$	1200	700	600	4	12	20	125	All	1.0	1.7
110	ESSFmh_110_multilayer	1056966	Bl – Rhododendron – Oak fern	Bl^{500} Sx	$Hw^{14,32}$ $Cw^{14,32}$	1200	700	600	4	12	20	125			2.0
111	ESSFmh_111_mitd_2.0	1056967	BlSe – Lady fern – Oak fern	Bl^{500} Sx	$Cw^{14,32}$ $Hw^{14,32}$	1200	700	600	4	12	20	125	All	1.0	2.0

	111	ESSFmh_111_mitd_1.7	1056968	BlSe – Lady fern – Oak fern	Bl^{500} Sx	$Cw^{14,32}$ $Hw^{14,32}$	1200	700	600	4	12	20	125	All	1.0	1.7
	111	ESSFmh_111_multilayer	1056969	BlSe – Lady fern – Oak fern	Bl^{500} Sx	$Cw^{14,32}$ $Hw^{14,32}$	1200	700	600	4	12	20	125			2.0
	112	ESSFmh112	1056970	SeBl – Horsetail – Arrow–leaved groundsel	$Bl^{1,32,500}$ $Sx^{1,32}$		1000	500	400	4	12	20	125	All	0.8	2.0
	112	ESSFmh_112_multilayler	1056971	SeBl – Horsetail – Arrow–leaved groundsel	$Bl^{1,32,500}$ $Sx^{1,32}$		1000	500	400	4	12	20	125			2.0
ESSFwc4	101	ESSFwc4_101_mitd_2.0	1056972	Bl – Rhododendron – Oak fern	$Bl^{201,500}$ Sx		1200	700	600	4	12	20	125	All	0.8	2.0
	101	ESSFwc4_101_mitd_1.7	1056973	Bl – Rhododendron – Oak fern	$Bl^{201,500}$ Sx		1200	700	600	4	12	20	125	All	0.8	1.7
	101	ESSFwc4_101_multilayer	1056974	Bl – Rhododendron – Oak fern	$Bl^{201,500}$ Sx		1200	700	600	4	12	20	125	All	0.8	2.0
	102	ESSFwc4_102	1056975	BlPa – Huckleberry – Clad lichen	Sx Pa^{201}	$Pl^{16,34}$ Bl^{500}	1000	500	400	7	15	20	125	Pl	1.2	2.0
														Others	0.6	
	102	ESSFwc4_102_multilayer	1056976	BlPa – Huckleberry – Clad lichen	Sx Pa^{201}	$Pl^{16,34}$ Bl^{500}	1000	500	400	7	15	20	125			2.0
	103	ESSFwc4_103_mitd_2.0	1056977	Bl – Rhododendron – Huckleberry – Heron's-bill moss	Bl^{500} Sx	$Pl^{16,34}$ Pa	1200	700	600	7	15	20	125	Pl	1.6	2.0
														Others	0.8	

103	ESSFwc4_103_mitd_1.7	1056978	Bl – Rhododendron – Huckleberry – Heron's-bill moss	Bl^{500} Sx	$Pl^{16,34}$ Pa	1200	700	600	7	15	20	125	Pl	1.6	1.7
		***											Others	0.8	
		***													
103	ESSFwc4_103_multilayer	1056980	Bl – Rhododendron – Huckleberry – Heron's-bill moss	Bl^{500} Sx	$Pl^{16,34}$ Pa	1200	700	600	7	15	20	125			2.0
103	ESSFwc4_103_Pl200_mitd_2.(	1056981	Bl – Rhododendron – Huckleberry – Heron's-bill moss	Bl^{500} Sx $Pl^{16,34,200}$	Pa	1200	700	600	7	15	20	125	Pl	1.6	2.0
													Others	0.8	
103	ESSFwc4_103_Pl200_mitd_1.'	1056982	Bl – Rhododendron – Huckleberry – Heron's-bill moss	Bl^{500} Sx $Pl^{16,34,200}$	Pa	1200	700	600	7	15	20	125	Pl	1.6	1.7
													Others	0.8	
103	ESSFwc4_103_Pl200_multilay	1056983	Bl – Rhododendron – Huckleberry – Heron's-bill moss	Bl^{500} Sx $Pl^{16,34,200}$	Pa	1200	700	600	7	15	20	125			2.0
110	ESSFwc4_110_mitd_2.0	1056984	BlSe – Lady fern – Oak fern	Bl^{500} Sx		1200	700	600	4	12	20	125	All	0.8	2.0
110	ESSFwc4_110_mitd_1.7	1056985	BlSe – Lady fern – Oak fern	Bl^{500} Sx		1200	700	600	4	12	20	125	All	0.8	1.7
110	ESSFwc4_110_multilayer	1056986	BlSe – Lady fern – Oak fern	Bl^{500} Sx		1200	700	600	4	12	20	125			2.0
111	ESSFwc4_111_mitd_2.0	1056987	Bl – Valerian – Foamflower	$Bl^{1,32,500}$ $Sx^{1,32}$		1200	700	600	4	12	20	125	All	0.8	2.0

	111	ESSFwc4_111_mitd_1.7	1056988	Bl – Valerian – Foamflower	$Bl^{1,32,500}$ $Sx^{1,32}$		1200	700	600	4	12	20	125	All	0.8	1.7
	111	ESSFwc4_111_multilayer	1056989 *** ***	Bl – Valerian – Foamflower	$Bl^{1,32,500}$ $Sx^{1,32}$		1200	700	600	4	12	20	125			2.0
	112	ESSFwc4_112	1056991	Se – Horsetail – Valerian	$Bl^{1,32,500}$ $Sx^{1,32}$		1000	500	400	4	12	20	125	All	0.6	2.0
	112	ESSFwc4_112_multilayer	1056992	Se – Horsetail – Valerian	$Bl^{1,32,500}$ $Sx^{1,32}$		1000	500	400	4	12	20	125			2.0
ESSFwcw	101	ESSFwcw_101_mitd_2.0	1056993	Bl – Rhododendron – Valerian	Bl^{500} Sx		1200	700	600	4	12	20	125	All	0.8	2.0
	101	ESSFwcw_101_mitd_1.7	1056994	Bl – Rhododendron – Valerian	Bl^{500} Sx		1200	700	600	4	12	20	125	All	0.8	1.7
	101	ESSFwcw_101_multilayer	1056995	Bl – Rhododendron – Valerian	Bl^{500} Sx		1200	700	600	4	12	20	125			2.0
	102	ESSFwcw_102	1056996	BlPa – Huckleberry – Clad lichen	Bl^{500} Sx Pa^{201}	Pl^{34}	1000	500	400	7	15	20	125	Pl Others	1.2 0.6	2.0
	102	ESSFwcw_102_multilayer	1056997	BlPa – Huckleberry – Clad lichen	Bl^{500} Sx Pa^{201}	Pl^{34}	1000	500	400	7	15	20	125			2.0
	103	ESSFwcw_103_mitd_2.0	1056998	Bl – Rhododendron – Wood-rush	Bl^{500} Sx Pa^{201}		1200	700	600	7	15	20	125	All	0.8	2.0
	103	ESSFwcw_103_mitd_1.7	1056999	Bl – Rhododendron – Wood-rush	Bl^{500} Sx Pa^{201}		1200	700	600	7	15	20	125	All	0.8	1.7

	103	ESSFwcw_103_multilayer	1057000	Bl – Rhododendron – Wood-rush	Bl^{500} Sx Pa^{201}		1200	700	600	7	15	20	125			2.0
	104	ESSFwcw_104_mitd_2.0	1057001	Bl – Mountain-heather	Bl^{500} Sx	La^{16}	1200	700	600	4	12	20	125	All	0.8	2.0
	104	ESSFwcw_104_mitd_1.7	1057002	Bl – Mountain-heather	Bl^{500} Sx	La^{16}	1200	700	600	4	12	20	125	All	0.8	1.7
	104	ESSFwcw_104_multilayer	1057003	Bl – Mountain-heather	Bl^{500} Sx	La^{16}	1200	700	600	4	12	20	125			2.0
	110	ESSFwcw_110	1057004	Bl – Valerian – Hellebore – Globeflower	Bl^{500} Sx		1000	500	400	4	12	20	125	All	0.6	2.0
	110	ESSFwcw_110_multilayer	1057005	Bl – Valerian – Hellebore – Globeflower	Bl^{500} Sx		1000	500	400	4	12	20	125			2.0
ESSFwh1	101	ESSFwh1_101_mitd_2.0	1057006	BlHw – Rhododendron – Foamflower	$Bl^{201,500}$ $Cw^{14,34,203}$ $Hw^{14,201}$ Sx	$Pl^{16,34}$ $Fd^{9,14,16}$ $Lw^{9,14,16}$ Pw^{31}	1200	700	600	4	12	20	125	Lw, Pl Fd Others	2.0 1.4 1.0	2.0
	101	ESSFwh1_101_mitd_1.7	1057007	BlHw – Rhododendron – Foamflower	$Bl^{201,500}$ $Cw^{14,34,203}$ $Hw^{14,201}$ Sx	$Pl^{16,34}$ $Fd^{9,14,16}$ $Lw^{9,14,16}$ Pw^{31}	1200	700	600	4	12	20	125	Lw, Pl Fd Others	2.0 1.4 1.0	1.7
	101	ESSFwh1_101_multilayer	1057008	BlHw – Rhododendron – Foamflower	$Bl^{201,500}$ $Cw^{14,34,203}$ $Hw^{14,201}$ Sx	$Pl^{16,34}$ $Fd^{9,14,16}$ $Lw^{9,14,16}$ Pw^{31}	1200	700	600	4	12	20	125			2.0

102	ESSFwh1_102	1057009	Bl – Huckleberry – Rock-moss	Fd Pl Sx	Bl^{500} Pa^{13}	1000	500	400	7	15	20	125	Pl Fd Others	1.6 1.2 0.8	2.0
102	ESSFwh1_102_multilayer	1057010	Bl – Huckleberry – Rock-moss	Fd Pl Sx	Bl^{500} Pa^{13}	1000	500	400	7	15	20	125			2.0
103	ESSFwh1_103_mitd_2.0	1057011	BlFd – Huckleberry – Falsebox	Sx $Fd^{14,34}$ $Lw^{14,34}$	$Pl^{16,34}$ Bl^{500} $Pw^{14,31}$ Pa^{13}	1200	700	600	7	15	20	125	Lw, Pw, Pl Fd Others	2.0 1.4 1.0	2.0
103	ESSFwh1_103_mitd_1.7	1057012	BlFd – Huckleberry – Falsebox	Sx $Fd^{14,34}$ $Lw^{14,34}$	$Pl^{16,34}$ Bl^{500} $Pw^{14,31}$ Pa^{13}	1200	700	600	7	15	20	125	Lw, Pw, Pl Fd Others	2.0 1.4 1.0	1.7
103	ESSFwh1_103_multilayer	1057013	BlFd – Huckleberry – Falsebox	Sx $Fd^{14,34}$ $Lw^{14,34}$	$Pl^{16,34}$ Bl^{500} $Pw^{14,31}$ Pa^{13}	1200	700	600	7	15	20	125			2.0
103	ESSFwh1_103_Pl200_mitd_2.0	*** 1057015	BlFd – Huckleberry – Falsebox	Sx $Fd^{14,34}$ $Lw^{14,34}$ $Pl^{16,34,200}$	Bl^{500} $Pw^{14,31}$ Pa^{13}	1200	700	600	7	15	20	125	Lw, Pw, Pl Fd Others	2.0 1.4 1.0	2.0
103	ESSFwh1_103_Pl200_mitd_1.7	1057016	BlFd – Huckleberry – Falsebox	Sx $Fd^{14,34}$ $Lw^{14,34}$ $Pl^{16,34,200}$	Bl^{500} $Pw^{14,31}$ Pa^{13}	1200	700	600	7	15	20	125	Lw, Pw, Pl Fd Others	2.0 1.4 1.0	1.7
103	ESSFwh1_103_Pl200_multilayer	1057017	BlFd – Huckleberry – Falsebox	Sx $Fd^{14,34}$ $Lw^{14,34}$ $Pl^{16,34,200}$	Bl^{500} $Pw^{14,31}$ Pa^{13}	1200	700	600	7	15	20	125			2.0
104	ESSFwh1_104_mitd_2.0	1057018	BlHw – Huckleberry – Pipecleaner moss	Sx $Cw^{14,201}$ $Fd^{9,14,201}$ $Lw^{9,14,201}$	Pl^{34} Bl^{500} $Hw^{9,14}$ $Pw^{9,14,31}$	1200	700	600	7	15	20	125	Lw, Pw, Pl	2.0	2.0

														Fd Others	1.4 1.0	
	104 ESSFwh1_104_mitd_1.7	1057019	BlHw – Huckleberry – Pipecleaner moss	Sx Cw^{14,201} Fd^{9,14,201} Lw^{9,14,201}	Pl^{34} Bl^{500} Hw^{9,14} Pw^{9,14,31}	1200	700	600	7	15	20	125	Lw, Pw, Pl	2.0	1.7
														Fd Others	1.4 1.0	
	104 ESSFwh1_104_multilayer	1057020	BlHw – Huckleberry – Pipecleaner moss	Sx Cw^{14,201} Fd^{9,14,201} Lw^{9,14,201}	Pl^{34} Bl^{500} Hw^{9,14} Pw^{9,14,31}	1200	700	600	7	15	20	125			2.0
	110 ESSFwh1_110_mitd_2.0	1057021	Se – Devil's club – Lady fern	Bl^{500} Sx	Cw^{14,32} Hw^{14,32}	1200	700	600	4	12	20	125	All	1.0	2.0
	110 ESSFwh1_110_mitd_1.7	1057022	Se – Devil's club – Lady fern	Bl^{500} Sx	Cw^{14,32} Hw^{14,32}	1200	700	600	4	12	20	125	All	1.0	1.7
	110 ESSFwh1_110_multilayer	1057023	Se – Devil's club – Lady fern	Bl^{500} Sx	Cw^{14,32} Hw^{14,32}	1200	700	600	4	12	20	125	All	1.0	2.0
	111 ESSFwh1_111	1057024	SeBl – Horsetail – Canby's lovage	Bl^{1,32,500} Sx^{1,32}	Hw^{1,32}	1000	500	400	4	12	20	125	All	0.8	2.0
	111 ESSFwh1_111_multilayer	1057025	SeBl – Horsetail – Canby's lovage	Bl^{1,32,500} Sx^{1,32}	Hw^{1,32}	1000	500	400	4	12	20	125	All	0.8	2.0
ESSFwh2	101 ESSFwh2_101_mitd_2.0	1057026	BlHw – Rhododendron – Foamflower	Bl^{201,500} Hw^{9,14,201} Sx	Pl^{34} Fd^{9,14} Lw^{9,14} Pw^{9,14,31} Cw^{9,14,32}	1200	700	600	4	12	20	125	Lw, Pl, Pw	2.0	2.0
														Fd Others	1.4 1.0	
	101 ESSFwh2_101_mitd_1.7	1057027	BlHw – Rhododendron – Foamflower	Bl^{201,500} Hw^{9,14,201} Sx	Pl^{34} Fd^{9,14} Lw^{9,14} Pw^{9,14,31} Cw^{9,14,32}	1200	700	600	4	12	20	125	Lw, Pl, Pw	2.0	1.7

													Fd Others	1.4 1.0	
101	ESSFwh2_101_multilayer	1057028	BlHw – Rhododendron – Foamflower	Bl^{201,500} Hw^{9,14,201} Sx	Pl^{34} Fd^{9,14} Lw^{9,14} Pw^{9,14,31} Cw^{9,14,32}	1200	700	600	4	12	20	125			2.0
102	ESSFwh2_102	1057029	Bl – Huckleberry – Rock-moss	Sx Pl^{34} Fd^{14}	Bl^{500} Pa^{13}	1000	500	400	7	15	20	125	Pl Fd Others	1.6 1.2 0.8	2.0
102	ESSFwh2_102_multilayer	1057030	Bl – Huckleberry – Rock-moss	Sx Pl^{34} Fd^{14}	Bl^{500} Pa^{13}	1000	500	400	7	15	20	125			2.0
103	ESSFwh2_103_mitd_2.0	1057031	Bl – Huckleberry – Falsebox	Pl^{34} Sx Fd^{14} Lw^{14}	Bl^{500} Pa^{13} Pw^{14,31}	1200	700	600	7	15	20	125	Pl, Pw Fd Others	2.0 1.4 1.0	2.0
103	ESSFwh2_103_mitd_1.7	1057032	Bl – Huckleberry – Falsebox	Pl^{34} Sx Fd^{14} Lw^{14}	Bl^{500} Pa^{13} Pw^{14,31}	1200	700	600	7	15	20	125	Pl, Pw Fd Others	2.0 1.4 1.0	1.7
103	ESSFwh2_103_multilayer	1057033	Bl – Huckleberry – Falsebox	Pl^{34} Sx Fd^{14} Lw^{14}	Bl^{500} Pa^{13} Pw^{14,31}	1200	700	600	7	15	20	125			2.0
104	ESSFwh2_104_mitd_2.0	1057034	BlHw – Huckleberry – Pipecleaner moss	Sx Cw^{14,201} Fd^{9,14,201} Lw^{9,14,201}	Bl^{500} Pl^{34} Pw^{9,14,31} Hw^{9,14}	1200	700	600	4	12	20	125	Lw, Pl, Pw Fd Others	2.0 1.4 1.0	2.0

104	ESSFwh2_104_mitd_1.7	1057035	BlHw – Huckleberry – Pipecleaner moss	Sx Cw^{14,201} Fd^{9,14,201} Lw^{9,14,201}	Bl^{500} Pl^{34} Pw^{9,14,31} Hw^{9,14}	1200	700	600	4	12	20	125	Lw, Pl, Pw Fd Others	2.0 1.4 1.0	1.7
104	ESSFwh2_104_multilayer	1057036	BlHw – Huckleberry – Pipecleaner moss	Sx Cw^{14,201} Fd^{9,14,201} Lw^{9,14,201}	Bl^{500} Pl^{34} Pw^{9,14,31} Hw^{9,14}	1200	700	600	4	12	20	125			2.0
110	ESSFwh2_110_mitd_2.0	1057037	BlSe – Azalea – Oak fern	Bl^{500} Sx	Hw^{14,32} Cw^{14,32}	1200	700	600	4	12	20	125	All	1.0	2.0
110	ESSFwh2_110_mitd_1.7	1057038	BlSe – Azalea – Oak fern	Bl^{500} Sx	Hw^{14,32} Cw^{14,32}	1200	700	600	4	12	20	125	All	1.0	1.7
110	ESSFwh2_110_multilayer	1057039	BlSe – Azalea – Oak fern	Bl^{500} Sx	Hw^{14,32} Cw^{14,32}	1200	700	600	4	12	20	125			2.0
111	ESSFwh2_111_mitd_2.0	1057040	Se – Devil's club – Lady fern	Bl^{500} Sx	Hw^{14,32} Cw^{14,32}	1200	700	600	4	12	20	125	All	1.0	2.0
111	ESSFwh2_111_mitd_1.7	1057041	Se – Devil's club – Lady fern	Bl^{500} Sx	Hw^{14,32} Cw^{14,32}	1200	700	600	4	12	20	125	All	1.0	1.7
111	ESSFwh2_111_multilayer	1057042	Se – Devil's club – Lady fern	Bl^{500} Sx	Hw^{14,32} Cw^{14,32}	1200	700	600	4	12	20	125			2.0
112	ESSFwh2_112	1057043	SeBl – Horsetail – Canby's lovage	Bl^{1,32,500} Sx^{1,32}	Hw^{1,32}	1000	500	400	4	12	20	125	All	0.8	2.0
112	ESSFwh2_112_multilayer	1057044	SeBl – Horsetail – Canby's lovage	Bl^{1,32,500} Sx^{1,32}	Hw^{1,32}	1000	500	400	4	12	20	125			2.0

ESSFwh3	101	ESSFwh3_101_mitd_2.0	1057045	BlHw – Rhododendron – Foamflower	$Bl^{201,500}$ $Cw^{14,34,203}$ $Hw^{14,201}$ Sx	Pl^{34} $Fd^{9,14}$ $Lw^{9,14}$ $Pw^{9,14,31}$	1200	700	600	4	12	20	125	Lw, Pw, Pl Fd Others	2.0 1.4 1.0	2.0
	101	ESSFwh3_101_mitd_1.7	1057046	BlHw – Rhododendron – Foamflower	$Bl^{201,500}$ $Cw^{14,34,203}$ $Hw^{14,201}$ Sx	Pl^{34} $Fd^{9,14}$ $Lw^{9,14}$ $Pw^{9,14,31}$	1200	700	600	4	12	20	125	Lw, Pw, Pl Fd Others	2.0 1.4 1.0	1.7
	101	ESSFwh3_101_mitd_multilaye	1057047	BlHw – Rhododendron – Foamflower	$Bl^{201,500}$ $Cw^{14,34,203}$ $Hw^{14,201}$ Sx	Pl^{34} $Fd^{9,14}$ $Lw^{9,14}$ $Pw^{9,14,31}$	1200	700	600	4	12	20	125			2.0
	102	ESSFwh3_102	1057048	BlFd – Bear-grass – Rock-moss	$Fd^{9,14}$ $Lw^{9,14}$ Pl^{34}	Sx Bl^{500} Pa^{13}	1000	500	400	7	15	20	125	Lw, Pl Fd Others	1.6 1.2 0.8	2.0
	102	ESSFwh3_102_multilayer	1057049	BlFd – Bear-grass – Rock-moss	$Fd^{9,14}$ $Lw^{9,14}$ Pl^{34}	Sx Bl^{500} Pa^{13}	1000	500	400	7	15	20	125			2.0
	103	ESSFwh3_103_mitd_2.0	1057050	BlPl – Huckleberry – Bear-grass	Sx $Fd^{9,14}$ $Lw^{9,14}$	Bl^{500} $Hw^{9,14}$ $Pw^{9,14,31}$ Pa^{13} Pl^{34}	1200	700	600	7	15	20	125	Lw, Pw, Pl Fd Others	2.0 1.4 1.0	2.0
	103	ESSFwh3_103_mitd_1.7	1057051	BlPl – Huckleberry – Bear-grass	Sx $Fd^{9,14}$ $Lw^{9,14}$	Bl^{500} $Hw^{9,14}$ $Pw^{9,14,31}$ Pa^{13} Pl^{34}	1200	700	600	7	15	20	125	Lw, Pw, Pl Fd Others	2.0 1.4 1.0	1.7
	103	ESSFwh3_103_multilayer	1057052	BlPl – Huckleberry – Bear-grass	Sx $Fd^{9,14}$ $Lw^{9,14}$	Bl^{500} $Hw^{9,14}$ $Pw^{9,14,31}$ Pa^{13} Pl^{34}	1200	700	600	7	15	20	125			2.0

103	ESSFwh3_103_Pl200_mitd_2.0	1057053	BlPl – Huckleberry – Bear-grass	Sx Fd^{9,14} Lw^{9,14} Pl^{34,200}	Bl^{500} Hw^{9,14} Pw^{9,14,31} Pa^{13}	1200	700	600	7	15	20	125	Lw, Pw, Pl Fd Others	2.0 1.4 1.0	2.0
103	ESSFwh3_103_Pl200_mitd_1.7	1057054	BlPl – Huckleberry – Bear-grass	Sx Fd^{9,14} Lw^{9,14} Pl^{34,200}	Bl^{500} Hw^{9,14} Pw^{9,14,31} Pa^{13}	1200	700	600	7	15	20	125	Lw, Pw, Pl Fd Others	2.0 1.4 1.0	1.7
103	ESSFwh3_103_Pl200_multilayer	1057055	BlPl – Huckleberry – Bear-grass	Sx Fd^{9,14} Lw^{9,14} Pl^{34,200}	Bl^{500} Hw^{9,14} Pw^{9,14,31} Pa^{13}	1200	700	600	7	15	20	125			2.0
104	ESSFwh3_104_mitd_2.0	1057056	Bl – Rhododendron – Bear-grass – Pipecleaner moss	Sx Cw^{14,201} Fd^{9,14,201} Lw^{9,14,201}	Bl^{500} Hw^{9,14} Pl^{34} Pw^{9,14,31}	1200	700	600	4	12	20	125	Lw, Pw, Pl Fd Others	2.0 1.4 1.0	2.0
104	ESSFwh3_104_mitd_1.7	1057057	Bl – Rhododendron – Bear-grass – Pipecleaner moss	Sx Cw^{14,201} Fd^{9,14,201} Lw^{9,14,201}	Bl^{500} Hw^{9,14} Pl^{34} Pw^{9,14,31}	1200	700	600	4	12	20	125	Lw, Pw, Pl Fd Others	2.0 1.4 1.0	1.7
104	ESSFwh3_104_multilayer	1057058	Bl – Rhododendron – Bear-grass – Pipecleaner moss	Sx Cw^{14,201} Fd^{9,14,201} Lw^{9,14,201}	Bl^{500} Hw^{9,14} Pl^{34} Pw^{9,14,31}	1200	700	600	4	12	20	125			2.0
110	ESSFwh3_110_mitd_2.0	1057059	Bl – Rhododendron – Oak fern	Bl^{500} Sx Cw^{14,32}	Hw^{14,32} Pl^{34}	1200	700	600	4	12	20	125	Pl Others	2.0 1.0	2.0
110	ESSFwh3_110_mitd_1.7	1057060	Bl – Rhododendron – Oak fern	Bl^{500} Sx Cw^{14,32}	Hw^{14,32} Pl^{34}	1200	700	600	4	12	20	125	Pl Others	2.0 1.0	1.7

	110	ESSFwh3_110_multilayer	1057061	Bl – Rhododendron – Oak fern	Bl^{500} Sx $Cw^{14,32}$	$Hw^{14,32}$ Pl^{34}	1200	700	600	4	12	20	125			2.0
	111	ESSFwh3_111_mitd_2.0	1057062	Se – Devil's club – Lady fern	Bl^{500} Sx	$Cw^{32,14}$ $Hw^{14,32}$	1200	700	600	4	12	20	125	All	1.0	2.0
	111	ESSFwh3_111_mitd_1.7	1057063	Se – Devil's club – Lady fern	Bl^{500} Sx	$Cw^{32,14}$ $Hw^{14,32}$	1200	700	600	4	12	20	125	All	1.0	1.7
	111	ESSFwh3_111_multilayer	1057064	Se – Devil's club – Lady fern	Bl^{500} Sx	$Cw^{32,14}$ $Hw^{14,32}$	1200	700	600	4	12	20	125			2.0
	112	ESSFwh3_112	1057065	SeBl – Horsetail – Canby's lovage	$Bl^{1,32,500}$ $Sx^{1,32}$	$Hw^{1,32}$	1000	500	400	4	12	20	125	All	0.8	2.0
	112	ESSFwh3_112_multilayer	1057066	SeBl – Horsetail – Canby's lovage	$Bl^{1,32,500}$ $Sx^{1,32}$	$Hw^{1,32}$	1000	500	400	4	12	20	125			2.0
ESSFwm2	101	ESSFwm2_101_mitd_2.0	1057067	Bl – Rhododendron – Azalea – Foamflower	$Bl^{201,500}$ Sx	Pl^{34}	1200	700	600	4	12	20	125	Pl Others	1.6 0.8	2.0
	101	ESSFwm2_101_mitd_1.7	1057068	Bl – Rhododendron – Azalea – Foamflower	$Bl^{201,500}$ Sx	Pl^{34}	1200	700	600	4	12	20	125	Pl Others	1.6 0.8	1.7
	101	ESSFwm2_101_multilayer	1057069	Bl – Rhododendron – Azalea – Foamflower	$Bl^{201,500}$ Sx	Pl^{34}	1200	700	600	4	12	20	125			2.0
	102	ESSFwm2_102	1057070	BlPa – Huckleberry – Clad lichen	Pa^{201} Sx	La^{10} Pl^{34} Bl^{500}	1000	500	400	7	15	20	125	Pl Others	1.2 0.6	2.0

102	ESSFwm2_102_multilayer	1057071	BlPa – Huckleberry – Clad lichen	Pa^{201} Sx	La^{10} Pl^{34} Bl^{500}	1000	500	400	7	15	20	125			2.0
103	ESSFwm2_103_mitd_2.0	1057072	Bl – Azalea – Rhododendron	Sx Pa^{201} Pl^{34}	Bl^{500}	1200	700	600	7	15	20	125	Pl	1.6	2.0
													Others	0.8	
103	ESSFwm2_103_mitd_1.7	1057073	Bl – Azalea – Rhododendron	Sx Pa^{201} Pl^{34}	Bl^{500}	1200	700	600	7	15	20	125	Pl	1.6	1.7
													Others	0.8	
103	ESSFwm2_103_multilayer	1057074	Bl – Azalea – Rhododendron	Sx Pa^{201} Pl^{34}	Bl^{500}	1200	700	600	7	15	20	125			2.0
104	ESSFwm2_104_mitd_2.0	1057075	Bl – Rhododendron – Huckleberry – Heron's-bill moss	$Bl^{201,500}$ Sx	Pa Pl^{34}	1200	700	600	7	15	20	125	Pl	1.6	2.0
													Others	0.8	
104	ESSFwm2_104_mitd_1.7	1057076	Bl – Rhododendron – Huckleberry – Heron's-bill moss	$Bl^{201,500}$ Sx	Pa Pl^{34}	1200	700	600	7	15	20	125	Pl	1.6	1.7
													Others	0.8	
104	ESSFwm2_104_multilayer	1057077	Bl – Rhododendron – Huckleberry – Heron's-bill moss	$Bl^{201,500}$ Sx	Pa Pl^{34}	1200	700	600	7	15	20	125			2.0
110	ESSFwm2_110_mitd_2.0	1057078	BlSe – Azalea – Oak fern	Bl^{500} Sx		1200	700	600	4	12	20	125	All	0.8	2.0
110	ESSFwm2_110_mitd_1.7	1057079	BlSe – Azalea – Oak fern	Bl^{500} Sx		1200	700	600	4	12	20	125	All	0.8	1.7

	110	ESSFwm2_110_multilayer	1057080	BlSe – Azalea – Oak fern	Bl^{500} Sx		1200	700	600	4	12	20	125			2.0
	111	ESSFwm2_111_mitd_2.0	1057081	Bl – Arrow-leaved groundsel – Canby's lovage	$Bl^{32,500}$ Sx^{32}		1200	700	600	4	12	20	125	All	0.8	2.0
	111	ESSFwm2_111_mitd_1.7	1057082	Bl – Arrow-leaved groundsel – Canby's lovage	$Bl^{32,500}$ Sx^{32}		1200	700	600	4	12	20	125	All	0.8	1.7
	111	ESSFwm2_111_multilayer	1057083	Bl – Arrow-leaved groundsel – Canby's lovage	$Bl^{32,500}$ Sx^{32}		1200	700	600	4	12	20	125			2.0
	112	ESSFwm2_112	1057084	SeBl – Horsetail – Canby's lovage	$Bl^{1,32,500}$ $Sx^{1,32}$		1000	500	400	4	12	20	125	All	0.6	2.0
	112	ESSFwm2_112_multilayer	1057085	SeBl – Horsetail – Canby's lovage	$Bl^{1,32,500}$ $Sx^{1,32}$		1000	500	400	4	12	20	125			2.0
ESSFwm3	101	ESSFwm3_101_mitd_2.0	1057086	Bl – Rhododendron – Azalea – Foamflower	$Bl^{201,500}$ Sx	Pl^{34}	1200	700	600	4	12	20	125	Pl Others	1.6 0.8	2.0
	101	ESSFwm3_101_mitd_1.7	1057087	Bl – Rhododendron – Azalea – Foamflower	$Bl^{201,500}$ Sx	Pl^{34}	1200	700	600	4	12	20	125	Pl Others	1.6 0.8	1.7
	101	ESSFwm3_101_multilayer	1057088	Bl – Rhododendron – Azalea – Foamflower	$Bl^{201,500}$ Sx	Pl^{34}	1200	700	600	4	12	20	125			2.0

102	ESSFwm3_102	1057089	Bl – Huckleberry – Bear-grass	Pa^{201} Sx	Bl^{500} Pl^{34}	1000	500	400	7	15	20	125	Pl	1.2	2.0
													Others	0.6	
102	ESSFwm3_102_multilayer	1057090	Bl – Huckleberry – Bear-grass	Pa^{201} Sx	Bl^{500} Pl^{34}	1000	500	400	7	15	20	125			2.0
103	ESSFwm3_103_mitd_2.0	1057091	BlSe – Rhododendron – Bear-grass	Sx Pa^{201} Pl^{34}	Bl^{500}	1200	700	600	7	15	20	125	Pl	1.6	2.0
													Others	0.8	
103	ESSFwm3_103_mitd_1.7	1057092	BlSe – Rhododendron – Bear-grass	Sx Pa^{201} Pl^{34}	Bl^{500}	1200	700	600	7	15	20	125	Pl	1.6	1.7
													Others	0.8	
103	ESSFwm3_103_multilayer	1057093	BlSe – Rhododendron – Bear-grass	Sx Pa^{201} Pl^{34}	Bl^{500}	1200	700	600	7	15	20	125			2.0
104	ESSFwm3_104_mitd_2.0	1057094	Bl – Rhododendron – Huckleberry – Heron's-bill moss	Bl^{500} Sx	Pl^{34}	1200	700	600	4	12	20	125	Pl	1.6	2.0
													Others	0.8	
104	ESSFwm3_104_mitd_1.7	1057095	Bl – Rhododendron – Huckleberry – Heron's-bill moss	Bl^{500} Sx	Pl^{34}	1200	700	600	4	12	20	125	Pl	1.6	1.7
													Others	0.8	
104	ESSFwm3_104_multilayer	1057096	Bl – Rhododendron – Huckleberry – Heron's-bill moss	Bl^{500} Sx	Pl^{34}	1200	700	600	4	12	20	125			2.0
105	ESSFwm3_105_mitd_2.0	1057097	BlSe – Bear-grass – Arnica	Bl^{500} Sx	Pl^{34}	1200	700	600	4	12	20	125	Pl	1.6	2.0
													Others	0.8	

105	ESSFwm3_105_mitd_1.7	1057098	BlSe – Bear-grass – Arnica	Bl^{500} Sx	Pl^{34}	1200	700	600	4	12	20	125	Pl Others	1.6 0.8	1.7
105	ESSFwm3_105_multilayer	1057099	BlSe – Bear-grass – Arnica	Bl^{500} Sx	Pl^{34}	1200	700	600	4	12	20	125			2.0
110	ESSFwm3_110_mitd_2.0	1057100	Bl – Rhododendron – Foamflower – Arnica	Bl^{500} Sx		1200	700	600	4	12	20	125	All	0.8	2.0
110	ESSFwm3_110_mitd_1.7	1057101	Bl – Rhododendron – Foamflower – Arnica	Bl^{500} Sx		1200	700	600	4	12	20	125	All	0.8	1.7
110	ESSFwm3_110_multilayer	1057102	Bl – Rhododendron – Foamflower – Arnica	Bl^{500} Sx		1200	700	600	4	12	20	125			2.0
111	ESSFwm3_111_mitd_2.0	1057103	Bl – Arrow-leaved groundsel – Canby's lovage	$Bl^{32,500}$ Sx^{32}		1200	700	600	4	12	20	125	All	0.8	2.0
111	ESSFwm3_111_mitd_1.7	1057104	Bl – Arrow-leaved groundsel – Canby's lovage	$Bl^{32,500}$ Sx^{32}		1200	700	600	4	12	20	125	All	0.8	1.7
111	ESSFwm3_111_multilayer	1057105	Bl – Arrow-leaved groundsel – Canby's lovage	$Bl^{32,500}$ Sx^{32}		1200	700	600	4	12	20	125			2.0
112	ESSFwm3_112	1057106	SeBl – Horsetail – Canby's lovage	$Bl^{1,32,500}$ $Sx^{1,32}$		1000	500	400	4	12	20	125	All	0.6	2.0
112	ESSFwm3_112_multilayer	1057107	SeBl – Horsetail – Canby's lovage	$Bl^{1,32,500}$ $Sx^{1,32}$		1000	500	400	4	12	20	125			2.0

ESSFwm4	101	ESSFwm4_101_mitd_2.0	1057108	Bl – Rhododendron – Azalea – Foamflower	$Bl^{201,500}$ $Hw^{14,201}$ Sx	Pl^{34} Lw^{14} Fd^{14}	1200	700	600	4	12	20	125	Lw, Pl Fd Others	2.0 1.4 1.0	2.0
	101	ESSFwm4_101_mitd_1.7	1057109	Bl – Rhododendron – Azalea – Foamflower	$Bl^{201,500}$ $Hw^{14,201}$ Sx	Pl^{34} Lw^{14} Fd^{14}	1200	700	600	4	12	20	125	Lw, Pl Fd Others	2.0 1.4 1.0	1.7
	101	ESSFwm4_101_multilayer	1057110	Bl – Rhododendron – Azalea – Foamflower	$Bl^{201,500}$ $Hw^{14,201}$ Sx	Pl^{34} Lw^{14} Fd^{14}	1200	700	600	4	12	20	125			2.0
	102	ESSFwm4_102	1057111	BlPl – Low bilberry – Bear-grass	Lw^{14} Fd^{14} $Pa^{13,201}$ Pl Sx^{13}	Bl^{500}	1000	500	400	4	12	20	125	Lw, Pl Fd Others	1.6 1.2 0.8	2.0
	102	ESSFwm4_102_multilayer	1057112	BlPl – Low bilberry – Bear-grass	Lw^{14} Fd^{14} $Pa^{13,201}$ Pl Sx^{13}	Bl^{500}	1000	500	400	4	12	20	125			2.0
	103	ESSFwm4_103_mitd_2.0	1057113	Bl – Azalea – Low bilberry	Sx Pl^{34} $Fd^{9,14}$ $Lw^{9,14}$	Bl^{500} Hw^{14}	1200	700	600	4	12	20	125	Lw, Pl Fd Others	2.0 1.4 1.0	2.0
	103	ESSFwm4_103_mitd_1.7	1057114	Bl – Azalea – Low bilberry	Sx Pl^{34} $Fd^{9,14}$ $Lw^{9,14}$	Bl^{500} Hw^{14}	1200	700	600	4	12	20	125	Lw, Pl Fd Others	2.0 1.4 1.0	1.7
	103	ESSFwm4_103_multilayer	1057115	Bl – Azalea – Low bilberry	Sx Pl^{34} $Fd^{9,14}$ $Lw^{9,14}$	Bl^{500} Hw^{14}	1200	700	600	4	12	20	125			2.0
	110	ESSFwm4_110_mitd_2.0	1057116	BlSe – Azalea – Oak fern	$Bl^{32,500}$ Sx^{32}	Hw^{14} Cw^{14}	1200	700	600	4	12	20	125	All	1.0	2.0

	110 ESSFwm4_110_mitd_1.7	1057117	BlSe – Azalea – Oak fern	$Bl^{32,500}$ Sx^{32}	Hw^{14} Cw^{14}	1200	700	600	4	12	20	125	All	1.0	1.7
	110 ESSFwm4_110_multilayer	1057118	BlSe – Azalea – Oak fern	$Bl^{32,500}$ Sx^{32}	Hw^{14} Cw^{14}	1200	700	600	4	12	20	125			2.0
	111 ESSFwm4_111	1057119	Bl – Arrow-leaved groundsel – Canby's lovage	$Bl^{1,32,500}$ $Sx^{1,32}$		1000	500	400	4	12	20	125	All	0.8	2.0
	111 ESSFwm4_111_multilayer	1057120	Bl – Arrow-leaved groundsel – Canby's lovage	$Bl^{1,32,500}$ $Sx^{1,32}$		1000	500	400	4	12	20	125			2.0
ESSFwmw	101 ESSFwmw_101_mitd_2.0	1057121	Bl – Rhododendron – Wood-rush	Bl^{500} Sx		1200	700	600	4	12	20	125	All	0.8	2.0
	101 ESSFwmw_101_mitd_1.7	1057122	Bl – Rhododendron – Wood-rush	Bl^{500} Sx		1200	700	600	4	12	20	125	All	0.8	1.7
	101 ESSFwmw_101_multilayer	1057123	Bl – Rhododendron – Wood-rush	Bl^{500} Sx		1200	700	600	4	12	20	125			2.0
	102 ESSFwmw_102	1057124	BlLa – Heron's-bill moss	Bl^{500} Sx Pa^{201}	La Pl^{34}	1000	500	400	7	15	20	125	Pl	1.2	2.0
													Others	0.6	
	102 ESSFwmw_102_multilayer	1057125	BlLa – Heron's-bill moss	Bl^{500} Sx Pa^{201}	La Pl^{34}	1000	500	400	7	15	20	125			2.0
		***													
	103 ESSFwmw_103_mitd_2.0	1057128	Bl(La) – Huckleberry – Grouseberry	Bl^{500} Sx Pa^{201}	Pl^{34}	1200	700	600	7	15	20	125	All	1.0	2.0

	103	ESSFwmw_103_mitd_1.7	1057129	Bl(La) – Huckleberry – Grouseberry	Bl^{500} Sx Pa^{201}	Pl^{34}	1200	700	600	7	15	20	125	All	1.0	1.7
	103	ESSFwmw_103_multilayer	1057130	Bl(La) – Huckleberry – Grouseberry	Bl^{500} Sx Pa^{201}	Pl^{34}	1200	700	600	7	15	20	125			2.0
	110	ESSFwmw_110	1057131	Bl – Valerian – Hellebore – Globeflower	Bl^{500} Sx		1000	500	400	4	12	20	125	All	0.6	2.0
	110	ESSFwmw_110_multilayer	1057132	Bl – Valerian – Hellebore – Globeflower	Bl^{500} Sx		1000	500	400	4	12	20	125			2.0
ICHdm	101	ICHdm_101_mitd_2.0	1057133	HwCw – Queen's cup – Pipecleaner moss	Cw Fd^{58} Lw Sx Pw^{31}	Hw Bl^{500} Bg^{14} Pl	1200	700	600	4	9	20	150	Lw, Pl, Pw Fd Others	2.0 1.4 1.0	2.0
	101	ICHdm_101__mitd_1.7	1057134	HwCw – Queen's cup – Pipecleaner moss	Cw Fd^{58} Lw Sx Pw^{31}	Hw Bl^{500} Bg^{14} Pl	1200	700	600	4	9	20	150	Lw, Pl, Pw Fd Others	2.0 1.4 1.0	1.7
	101	ICHdm_101_multilayer	1057135	HwCw – Queen's cup – Pipecleaner moss	Cw Fd^{58} Lw Sx Pw^{31}	Hw Bl^{500} Bg^{14} Pl	1200	700	600	4	9	20	150			2.0
	101	ICHdm_101_Pl200_mitd_2.0	1057136	HwCw – Queen's cup – Pipecleaner moss	Cw Fd^{58} Lw Sx Pw^{31} Pl^{200}	Hw Bl^{500} Bg^{14}	1200	700	600	4	9	20	150	Lw, Pl, Pw	2.0	2.0

		***											Fd	1.4		
		***											Others	1.0		
		***														
101	ICHdm_101_Pl200_mitd_1.7	1057138	HwCw – Queen's cup – Pipecleaner moss	Cw Fd[58] Lw Sx Pw[31] Pl[200]	Hw Bl[500] Bg[14]	1200	700	600	4	9	20	150	Lw, Pl, Pw	2.0	1.7
													Fd	1.4		
													Others	1.0		
101	ICHdm_101_Pl200_multilayer	1057139	HwCw – Queen's cup – Pipecleaner moss	Cw Fd[58] Lw Sx Pw[31] Pl[200]	Hw Bl[500] Bg[14]	1200	700	600	4	9	20	150			2.0	
102	ICHdm_102	1057140	Fd – Snowberry – Oregon-grape	Fd[58] Lw Pl	Py[9,14,203]	1000	500	400	7	12	20	150	Lw, Pl, Py	2.0	2.0	
		***												1.4		
		***											Fd	1.0		
		***											Others	0.8		
102	ICHdm_102_multilayer	1057433	Fd – Snowberry – Oregon-grape	Fd[58] Lw Pl	Py[9,14,203]	1000	500	400	7	12	20	150			2.0	
103	ICHdm_103_mitd_2.0	1057434	Pl(Lw) – Pinegrass – Grouseberry	Fd[58] Lw Pl	Pw[31] Sx Bl[10,13,500] Bg[14]	1200	700	600	7	12	20	150	Lw, Pl, Pw	2.0	2.0	
													Fd	1.4		
													Others	1.0		
103	ICHdm_103_mitd_1.7	1057435	Pl(Lw) – Pinegrass – Grouseberry	Fd[58] Lw Pl	Pw[31] Sx Bl[10,13,500] Bg[14]	1200	700	600	7	12	20	150	Lw, Pl, Pw	2.0	1.7	
													Fd	1.4		
													Others	1.0		
103	ICHdm_103_multilayer	1057436	Pl(Lw) – Pinegrass – Grouseberry	Fd[58] Lw Pl	Pw[31] Sx Bl[10,13,500] Bg[14]	1200	700	600	7	12	20	150			2.0	
110	ICHdm_110_mitd_2.0	1057437	CwHw – Oak fern	Cw Fd[1,14,32,58] Lw[1,14,32,201] Pw[31] Sx	Bl[12,13,500] Hw Bg[14]	1200	700	600	4	9	20	150	Lw, Pw	2.0	2.0	
													Fdi	1.4		
													Others	1.0		

	110 ICHdm_110_mitd_1.7	1057438	CwHw – Oak fern	Cw Fd[1,14,32,58] Lw[1,14,32,201] Pw[31] Sx	Bl[12,13,500] Hw Bg[14]	1200	700	600	4	9	20	150	Lw, Pw Fdi Others	2.0 1.4 1.0	1.7
	110 ICHdm_110_multilayer	1057439	CwHw – Oak fern	Cw Fd[1,14,32,58] Lw[1,14,32,201] Pw[31] Sx	Bl[12,13,500] Hw Bg[14]	1200	700	600	4	9	20	150			2.0
	111 ICHdm_111_mitd_2.0	1057440	CwHw – Devil's club – Lady fern	Cw[1,32] Sx	Bl[12,13,500] Hw	1200	700	600	4	9	20	150	All	1.0	2.0
	111 ICHdm_111_mitd_1.7	1057441	CwHw – Devil's club – Lady fern	Cw[1,32] Sx	Bl[12,13,500] Hw	1200	700	600	4	9	20	150	All	1.0	1.7
	111 ICHdm_111_multilayer	1057442	CwHw – Devil's club – Lady fern	Cw[1,32] Sx	Bl[12,13,500] Hw	1200	700	600	4	9	20	150			2.0
	112 ICHdm_112	1057443	SeCw – Horsetail – Lady fern	Sx[1]	Cw[1,32] Hw[1,32] Bl[1,500]	1000	500	400	4	9	20	150	All	0.8	2.0
	112 ICHdm_112_multilayer	1057444	SeCw – Horsetail – Lady fern	Sx[1]	Cw[1,32] Hw[1,32] Bl[1,500]	1000	500	400	4	9	20	150	All	0.8	2.0
ICHdw1	101 ICHdw1_101_mitd_2.0	1057445	CwFd – Prince's pine – Twinflower	Cw[10] Fd[58] Lw Pw[31]	Pl[13] Bg Hw Py[9,14]	1200	700	600	7	12	20	150	Lw,Pl, Pw Fd Others	2.0 1.4 1.0	2.0
	101 ICHdw1_101_mitd_1.7	1057446	CwFd – Prince's pine – Twinflower	Cw[10] Fd[58] Lw Pw[31]	Pl[13] Bg Hw Py[9,14]	1200	700	600	7	12	20	150	Lw,Pl, Pw Fd Others	2.0 1.4 1.0	1.7
	101 ICHdw1_101_multilayer	1057447	CwFd – Prince's pine – Twinflower	Cw[10] Fd[58] Lw Pw[31]	Pl[13] Bg Hw Py[9,14]	1200	700	600	7	12	20	150			2.0

102	ICHdw1_102	1057448	Fd(Py) – Falsebox – Pinegrass	Fd Py	Lw Pl[13]	800	400	400	7	12	20	150	Pl, Lw Fd Others	1.4 1.0 0.8	2.0
102	ICHdw1_102_multilayer	1057449	Fd(Py) – Falsebox – Pinegrass	Fd Py	Lw Pl[13]	800	400	400	7	12	20	150			2.0
103	ICHdw1_103	1057450	Fd(Py) – Douglas maple – Pinegrass	Fd Lw Py	Pl[13] Pw[31]	1000	500	400	7	12	20	150	Lw, Pl, Pw Fd Others	1.4 1.0 0.8	2.0
103	ICHdw1_103_multilayer	1057451	Fd(Py) – Douglas maple – Pinegrass	Fd Lw Py	Pl[13] Pw[31]	1000	500	400	7	12	20	150			2.0
104	ICHdw1_104_mitd_2.0	1057452	FdCw – Douglas maple – Prince's pine	Fd[58] Lw Py[9,203] Pw[31]	Bg Pl Cw[10,204]	1200	700	600	7	12	20	150	Lw, Pl, Pw Fd Others	2.0 1.4 1.0	2.0
104	ICHdw1_104_mitd_1.7	1057453	FdCw – Douglas maple – Prince's pine	Fd[58] Lw Py[9,203] Pw[31]	Bg Pl Cw[10,204]	1200	700	600	7	12	20	150	Lw, Pl, Pw Fd Others	2.0 1.4 1.0	1.7
104	ICHdw1_104_multilayer	1057454	FdCw – Douglas maple – Prince's pine	Fd[58] Lw Py[9,203] Pw[31]	Bg Pl Cw[10,204]	1200	700	600	7	12	20	150			2.0
110	ICHdw1_110_mitd_2.0	1057455	CwHw – Oak fern	Cw Fd[1,32,58] Lw[1,32,201] Pw[31] Hw[201]	Bg Sx	1200	700	600	4	9	20	150	Lw, Pw Fd Others	2.0 1.4 1.0	2.0
110	ICHdw1_110_mitd_1.7	1057456	CwHw – Oak fern	Cw Fd[1,32,58] Lw[1,32,201] Pw[31] Hw[201]	Bg Sx	1200	700	600	4	9	20	150	Lw, Pw Fd	2.0 1.4	1.7

													Others	1.0	
110	ICHdw1_110_multilayer	1057457	CwHw – Oak fern	Cw Fd^{1,32,58} Lw^{1,32,201} Pw^{31}Hw^{201}	Bg Sx	1200	700	600	4	9	20	150			2.0
111	ICHdw1_111_mitd_2.0	1057458	CwHw – Devil's club – Lady fern	Cw Pw^{1,31} Sx	Bg Fd^{1,32} Hw Lw^{1,32}	1200	700	600	4	9	20	150	Lw, Pw	2.0	2.0
													Fd	1.4	
													Others	1.0	
111	ICHdw1_111_mitd_1.7	1057459	CwHw – Devil's club – Lady fern	Cw Pw^{1,31} Sx	Bg Fd^{1,32} Hw Lw^{1,32}	1200	700	600	4	9	20	150	Lw, Pw	2.0	1.7
													Fd	1.4	
													Others	1.0	
111	ICHdw1_111_multilayer	1057460	CwHw – Devil's club – Lady fern	Cw Pw^{1,31} Sx	Bg Fd^{1,32} Hw Lw^{1,32}	1200	700	600	4	9	20	150			2.0
112	ICHdw1_112	1057461	CwHw – Horsetail – Lady fern	Sx^{1} Cw^{1,32}	Hw^{1,32} Pw^{31}	1000	500	400	4	9	20	150	Pw	1.4	2.0
													Others	0.8	
112	ICHdw1_112_multilayer	1057462	CwHw – Horsetail – Lady fern	Sx^{1} Cw^{1,32}	Hw^{1,32} Pw^{31}	1000	500	400	4	9	20	150			2.0
113	ICHdw1_113	1057463	CwSe – Skunk cabbage	Sx^{1} Cw^{1,32}	Hw^{1,32}	1000	500	400	4	9	20	150	Sx, Cw, Hw	0.8	2.0
113	ICHdw1_113_multilayer	1057464	CwSe – Skunk cabbage	Sx^{1} Cw^{1,32}	Hw^{1,32}	1000	500	400	4	9	20	150			2.0
ICHmw2	101	ICHmw2_101_mitd_2.0	1057465	HwCw – Falsebox	Fd^{58} Lw Cw Hw^{201} Pw^{31}	Bl^{10,13,500} Sx^{10,13}	1200	700	600	4	9	20	150	Lw, Pw	2.0	2.0
														Fd	1.4	
														Others	1.0	
	101	ICHmw2_101_mitd_1.7	1057466	HwCw – Falsebox	Fd^{58} Lw Cw Hw^{201} Pw^{31}	Bl^{10,13,500} Sx^{10,13}	1200	700	600	4	9	20	150	Lw, Pw	2.0	1.7
														Fd	1.4	

													Others	1.0	
101	ICHmw2_101_multilayer	1057467	HwCw – Falsebox	Fd[58] Lw Cw Hw[201] Pw[31]	Bl[10,13,500] Sx[10,13]	1200	700	600	4	9	20	150			2.0
102	ICHmw2_102	1057468	Fd(Pl) – Falsebox – Pinegrass	Fd Pl	Lw Py[9,14,203]	1000	500	400	7	12	20	150	Lw, Pl	1.4	2.0
													Fd	1.0	
													Others	0.8	
102	ICHmw2_102_multilayer	1057469	Fd(Pl) – Falsebox – Pinegrass	Fd Pl	Lw Py[9,14,203]	1000	500	400	7	12	20	150			2.0
103	ICHmw2_103	1057470	Fd – Douglas maple – Falsebox	Fd Lw	Pl Pw[31] Cw[13] Py[9,14,203]	1000	500	400	7	12	20	150	Lw, Pl, Pw	2.0	2.0
													Fd	1.4	
													Others	1.0	
103	ICHmw2_103_multilayer	1057471	Fd – Douglas maple – Falsebox	Fd Lw	Pl Pw[31] Cw[13] Py[9,14,203]	1000	500	400	7	12	20	150			2.0
103	ICHmw2_103_Pl200	1057472	Fd – Douglas maple – Falsebox	Fd Lw Pl[200]	Pw[31] Cw[13] Py[9,14,203]	1000	500	400	7	12	20	150	Lw, Pl, Pw	2.0	2.0
													Fd	1.4	
													Others	1.0	
103	ICHmw2_103_Pl200_multilayer	1057473	Fd – Douglas maple – Falsebox	Fd Lw Pl[200]	Pw[31] Cw[13] Py[9,14,203]	1000	500	400	7	12	20	150			2.0
104	ICHmw2_104_mitd_2..0	1057474	FdCw – Falsebox – Prince's pine	Cw[10,201] Fd[58] Lw Pw[31]	Pl Hw Py[9,14,203] Sx[10,13]	1200	700	600	7	12	20	150	Lw, Pl, Pw	2.0	2.0
													Fd	1.4	
													Others	1.0	
104	ICHmw2_104_mitd_1.7	1057475	FdCw – Falsebox – Prince's pine	Cw[10,201] Fd[58] Lw Pw[31]	Pl Hw Py[9,14,203] Sx[10,13]	1200	700	600	7	12	20	150	Lw, Pl, Pw	2.0	1.7
													Fd	1.4	
													Others	1.0	

104	ICHmw2_104_multilayer	1057476	FdCw – Falsebox – Prince's pine	$Cw^{10,201}$ Fd^{58} Lw Pw^{31}	Pl Hw $Py^{9,14,203}$ $Sx^{10,13}$	1200	700	600	7	12	20	150			2.0
110	ICHmw2_110_mitd_2.0	1057477	CwHw – Oak fern	Cw Hw^{201} $Fd^{1,14,32,58}$ $Lw^{1,14,32}$ $Pw^{31}Sx^{10,13,201}$		1200	700	600	4	9	20	150	Lw, Pw Fd Others	2.0 1.4 1.0	2.0
110	ICHmw2_110_mitd_1.7	1057478	CwHw – Oak fern	Cw Hw^{201} $Fd^{1,14,32,58}$ $Lw^{1,14,32}$ $Pw^{31}Sx^{10,13,201}$		1200	700	600	4	9	20	150	Lw, Pw Fd Others	2.0 1.4 1.0	1.7
110	ICHmw2_110_multilayer	1057479	CwHw – Oak fern	Cw Hw^{201} $Fd^{1,14,32,58}$ $Lw^{1,14,32}$ $Pw^{31}Sx^{10,13,201}$		1200	700	600	4	9	20	150			2.0
111	ICHmw2_111_mitd_2.0	*** 1057506	CwHw – Devil's club – Lady fern	Cw^{32} $Pw^{1,31}$ Sx	$Fd^{1,14,32,58}$ Hw^{32} $Lw^{1,14,32}$	1200	700	600	4	9	20	150	Lw, Pw Fd Others	2.0 1.4 1.0	2.0
111	ICHmw2_111_mitd_1.7	1057507	CwHw – Devil's club – Lady fern	Cw^{32} $Pw^{1,31}$ Sx	$Fd^{1,14,32,58}$ Hw^{32} $Lw^{1,14,32}$	1200	700	600	4	9	20	150	Lw, Pw Fd Others	2.0 1.4 1.0	1.7
111	ICHmw2_111_multilayer	1057508	CwHw – Devil's club – Lady fern	Cw^{32} $Pw^{1,31}$ Sx	$Fd^{1,14,32,58}$ Hw^{32} $Lw^{1,14,32}$	1200	700	600	4	9	20	150			2.0
112	ICHmw2_112_mitd_2.0	1057509	Sxw(Hw) – Huckleberry – Oak fern	Sx $Cw^{1,32}$	$Hw^{1,32}$ Bl^{500}	1200	700	600	4	9	20	150	All	1.0	2.0
112	ICHmw2_112_mitd_1.7	1057510	Sxw(Hw) – Huckleberry – Oak fern	Sx $Cw^{1,32}$	$Hw^{1,32}$ Bl^{500}	1200	700	600	4	9	20	150	All	1.0	1.7

	112	ICHmw2_112_multilayer	1057511	Sxw(Hw) – Huckleberry – Oak fern	Sx $Cw^{1,32}$	$Hw^{1,32}$ Bl^{500}	1200	700	600	4	9	20	150			2.0
	113	ICHmw2_113	1057512	CwHw – Horsetail – Lady fern	$Cw^{1,32}$ Sx^{1}	$Bl^{1,500}$ $Hw^{1,32}$	1000	500	400	4	9	20	150	All	0.8	2.0
	113	ICHmw2_113_multilayer	1057513	CwHw – Horsetail – Lady fern	$Cw^{1,32}$ Sx^{1}	$Bl^{1,500}$ $Hw^{1,32}$	1000	500	400	4	9	20	150			2.0
	114	ICHmw2_114	1057514	CwSxw – Skunk cabbage	$Cw^{1,32}$ Sx^{1}	$Bl^{1,500}$ $Hw^{1,32}$	1000	500	400	4	9	20	150	All	0.8	2.0
	114	ICHmw2_114_multilayer	1057515	CwSxw – Skunk cabbage	$Cw^{1,32}$ Sx^{1}	$Bl^{1,500}$ $Hw^{1,32}$	1000	500	400	4	9	20	150			2.0
ICHmw4	101	ICHmw4_101_mitd_2.0	1057516	HwCw – Falsebox	Cw Fd^{58} Hw^{201} Lw Pw^{31}	Pl $Sx^{10,13}$ Bg^{14}	1200	700	600	4	9	20	150	Lw, Pl, Pw Fd Others	2.0 1.4 1.0	2.0
	101	ICHmw4_101_mitd_1.7	1057517	HwCw – Falsebox	Cw Fd^{58} Hw^{201} Lw Pw^{31}	Pl $Sx^{10,13}$ Bg^{14}	1200	700	600	4	9	20	150	Lw, Pl, Pw Fd Others	2.0 1.4 1.0	1.7
	101	ICHmw4_101_multilayer	1057518	HwCw – Falsebox	Cw Fd^{58} Hw^{201} Lw Pw^{31}	Pl $Sx^{10,13}$ Bg^{14}	1200	700	600	4	9	20	150			2.0
	102	ICHmw4_102	1057519	FdPl – Juniper – Kinnikinnick	Fd Pl	Lw $Py^{9,14,203}$	1000	500	400	7	12	20	150	Lw, Pl, Py Fd Others	1.4 1.0 0.8	2.0
	102	ICHmw4_102_multilayer	1057520	FdPl – Juniper – Kinnikinnick	Fd Pl	Lw $Py^{9,14,203}$	1000	500	400	7	12	20	150			2.0
	103	ICHmw4_103	1057521	Fd – Douglas maple – Falsebox	Fd Lw	Pl $Py^{9,14,203}$ $Cw^{13,10}$ Pw^{31}	1000	500	400	7	12	20	150	Lw, Pl, Pw Fd Others	2.0 1.4 1.0	2.0

103	ICHmw4_103_multilayer	1057522	Fd – Douglas maple – Falsebox	Fd Lw	Pl $Py^{9,14,203}$ $Cw^{13,10}$ Pw^{31}	1000	500	400	7	12	20	150			2.0
103	ICHmw4_103_Pl200	1057523	Fd – Douglas maple – Falsebox	Fd Lw Pl^{200}	$Py^{9,14,203}$ $Cw^{13,10}$ Pw^{31}	1000	500	400	7	12	20	150	Lw, Pl, Pw Fd Others	2.0 1.4 1.0	2.0
103	ICHmw4_103__Pl200_multilayer	1057524 ***	Fd – Douglas maple – Falsebox	Fd Lw Pl^{200}	$Py^{9,14,203}$ $Cw^{13,10}$ Pw^{31}	1000	500	400	7	12	20	150			2.0
104	ICHmw4_104_mitd_2.0	1057526 ***	FdCw – Falsebox – Prince's pine	$Cw^{10,201}$ Fd^{58} Lw Pw^{31}	Pl Cw Hw $Sx^{10,13,204}$ Bg^{14}	1200	700	600	7	12	20	150	Lw, Pl, Pw Fd Others	2.0 1.4 1.0	2.0
104	ICHmw4_104_mitd_1.7	1057527 ***	FdCw – Falsebox – Prince's pine	$Cw^{10,201}$ Fd^{58} Lw Pw^{31}	Pl Cw Hw $Sx^{10,13,204}$ Bg^{14}	1200	700	600	7	12	20	150	Lw, Pl, Pw Fd Others	2.0 1.4 1.0	1.7
104	ICHmw4_104_multilayer	1057529 ***	FdCw – Falsebox – Prince's pine	$Cw^{10,201}$ Fd^{58} Lw Pw^{31}	Pl Cw Hw $Sx^{10,13,204}$ Bg^{14}	1200	700	600	7	12	20	150			2.0
110	ICHwm4_110_mitd_2.0	1057530	CwHw – Oak fern	Cw $Fd^{1,14,32,58}$ Hw^{201} $Lw^{1,14,32}$ Pw^{31}	Bg^{14} Sx	1200	700	600	4	9	20	150	Lw, Pw Fd Others	2.0 1.4 1.0	2.0
110	ICHwm4_110_mitd_1.7	1057531	CwHw – Oak fern	Cw $Fd^{1,14,32,58}$ Hw^{201} $Lw^{1,14,32}$ Pw^{31}	Bg^{14} Sx	1200	700	600	4	9	20	150	Lw, Pw Fd Others	2.0 1.4 1.0	1.7
110	ICHwm4_110_multilayer	1057532	CwHw – Oak fern	Cw $Fd^{1,14,32,58}$ Hw^{201} $Lw^{1,14,32}$ Pw^{31}	Bg^{14} Sx	1200	700	600	4	9	20	150			2.0

111	ICHmw4_111_mitd_2.0	1057533	Sxw(Hw) – Huckleberry – Oak fern	Bl^{500} Sx	$Cw^{1,32}$ $Hw^{1,32}$	1200	700	600	4	9	20	150	All	0.8	2.0
111	ICHmw4_111_mitd_1.7	1057534	Sxw(Hw) – Huckleberry – Oak fern	Bl^{500} Sx	$Cw^{1,32}$ $Hw^{1,32}$	1200	700	600	4	9	20	150	All	0.8	1.7
111	ICHmw4_111_multilayer	1057535	Sxw(Hw) – Huckleberry – Oak fern	Bl^{500} Sx	$Cw^{1,32}$ $Hw^{1,32}$	1200	700	600	4	9	20	150			2.0
112	ICHmw4_112_mitd_2.0	1057536	CwHw – Devil's club – Lady fern	Cw^{32} Sx	$Lw^{1,32}$ $Fd^{1,32}$ Bl^{500} Hw^{32}	1200	700	600	4	9	20	150	Lw Fd Others	2.0 1.4 1.0	2.0
112	ICHmw4_112_mitd_1.7	1057537	CwHw – Devil's club – Lady fern	Cw^{32} Sx	$Lw^{1,32}$ $Fd^{1,32}$ Bl^{500} Hw^{32}	1200	700	600	4	9	20	150	Lw, Pw Fd Others	2.0 1.4 1.0	2.0
112	ICHmw4_112_multilayer	1057538	CwHw – Devil's club – Lady fern	Cw^{32} Sx	$Lw^{1,32}$ $Fd^{1,32}$ Bl^{500} Hw^{32}	1200	700	600	4	9	20	150			2.0
113	ICHmw4_113_mitd_2.0	1057539	SxwBl – Devil's club – Lady fern	Bl^{500} Sx	$Cw^{1,32}$ $Hw^{1,32}$	1200	700	600	4	9	20	150	All	1.0	2.0
113	ICHmw4_113_mitd_1.7	1057540	SxwBl – Devil's club – Lady fern	Bl^{500} Sx	$Cw^{1,32}$ $Hw^{1,32}$	1200	700	600	4	9	20	150	All	1.0	1.7
113	ICHmw4_113_multilayer	1057541	SxwBl – Devil's club – Lady fern	Bl^{500} Sx	$Cw^{1,32}$ $Hw^{1,32}$	1200	700	600	4	9	20	150			2.0
		***													
		***													
114	ICHmw4_114	1057583	SxwCw – Horsetail – Lady fern	$Cw^{1,32}$ Sx^{1}	Bl^{500} $Hw^{1,32}$	1000	500	400	4	9	20	150	All	0.8	2.0

	114	ICHmw4_114_multilayer	1057584	SxwCw – Horsetail – Lady fern	$Cw^{1,32}$ Sx^{1}	Bl^{500} $Hw^{1,32}$	1000	500	400	4	9	20	150			2.0
ICHmw5	101	ICHmw5_101_mitd_2.0	1057585	HwCw – Falsebox	Cw Fd^{58} Hw^{201} Lw Pw^{31} $Sx^{10,13}$	$Bg^{14,16}$ Pl	1200	700	600	4	9	20	150	Lw, Pl, Pw Fd Others	2.0 1.4 1.0	2.0
	101	ICHmw5_101_mitd_1.7	1057586	HwCw – Falsebox	Cw Fd^{58} Hw^{201} Lw Pw^{31} $Sx^{10,13}$	$Bg^{14,16}$ Pl	1200	700	600	4	9	20	150	Lw, Pl, Pw Fd Others	2.0 1.4 1.0	1.7
	101	ICHmw5_101_multilayer	1057587	HwCw – Falsebox	Cw Fd^{58} Hw^{201} Lw Pw^{31} $Sx^{10,13}$	$Bg^{14,16}$ Pl	1200	700	600	4	9	20	150			2.0
	102	ICHmw5_102	1057588	FdPl – Juniper – Kinnikinnick	Fd Pl	$Py^{9,14,16,203}$ Lw	1000	500	400	7	12	20	150	Lw, Pl, Py Fd Others	1.4 1.0 0.8	2.0
	102	ICHmw5_102_multilayer	1057589	FdPl – Juniper – Kinnikinnick	Fd Pl	$Py^{9,14,16,203}$ Lw	1000	500	400	7	12	20	150			2.0
	103	ICHmw5_103	1057590	Fd – Douglas maple – Falsebox	Fd Lw	Pl Pw^{31} $Py^{9,14,16,203}$	1000	500	400	7	12	20	150	Lw, Pl, Pw Fd Others	2.0 1.4 1.0	2.0
	103	ICHmw5_103_multilayer	1057591	Fd – Douglas maple – Falsebox	Fd Lw	Pl Pw^{31} $Py^{9,14,16,203}$	1000	500	400	7	12	20	150			2.0
	103	ICHmw5_103_Pl200	1057592	Fd – Douglas maple – Falsebox	Fd Lw Pl^{200}	Pw^{31} $Py^{9,14,16,203}$	1000	500	400	7	12	20	150	Lw, Pl, Pw Fd Others	2.0 1.4 1.0	2.0
	103	ICHmw5_103_Pl200_multilayer	1057593	Fd – Douglas maple – Falsebox	Fd Lw Pl^{200}	Pw^{31} $Py^{9,14,16,203}$	1000	500	400	7	12	20	150			2.0

104	ICHmw5_104_mitd_2.0	1057594	FdCw – Falsebox – Prince's pine	Fd^{58} Lw Pw^{31} Cw^{201}	$Bg^{14,16}$ Hw Pl $Py^{9,14,16}$ $Sx^{10,13}$	1200	700	600	7	12	20	150	Lw, Pl, Pw Fd Others	2.0 1.4 1.0	2.0
104	ICHmw5_104_mitd_1.7	1057595	FdCw – Falsebox – Prince's pine	Fd^{58} Lw Pw^{31} Cw^{201}	$Bg^{14,16}$ Hw Pl $Py^{9,14,16}$ $Sx^{10,13}$	1200	700	600	7	12	20	150	Lw, Pl, Pw Fd Others	2.0 1.4 1.0	1.7
104	ICHmw5_104_multilayer	1057596	FdCw – Falsebox – Prince's pine	Fd^{58} Lw Pw^{31} Cw^{201}	$Bg^{14,16}$ Hw Pl $Py^{9,14,16}$ $Sx^{10,13}$	1200	700	600	7	12	20	150			2.0
104	ICHmw5_104_Pl200_mitd_2.0	1057597	FdCw – Falsebox – Prince's pine	Fd^{58} Lw Pw^{31} Cw^{201} Pl^{200}	$Bg^{14,16}$ Hw $Py^{9,14,16}$ $Sx^{10,13}$	1200	700	600	7	12	20	150	Lw, Pl, Pw Fd Others	2.0 1.4 1.0	2.0
104	ICHmw5_104_Pl200_mitd_1.7	1057598	FdCw – Falsebox – Prince's pine	Fd^{58} Lw Pw^{31} Cw^{201} Pl^{200}	$Bg^{14,16}$ Hw $Py^{9,14,16}$ $Sx^{10,13}$	1200	700	600	7	12	20	150	Lw, Pl, Pw Fd Others	2.0 1.4 1.0	1.7
104	ICHmw5_104_Pl200_multilayer	1057599	FdCw – Falsebox – Prince's pine	Fd^{58} Lw Pw^{31} Cw^{201} Pl^{200}	$Bg^{14,16}$ Hw $Py^{9,14,16}$ $Sx^{10,13}$	1200	700	600	7	12	20	150			2.0
110	ICHmw5_110_mitd_2.0	1057600	CwHw – Oak fern	Cw Hw $Fd^{1,14,32,58}$ $Lw^{1,14,32}$ Sx	Bl^{500} Pw^{31}	1200	700	600	4	9	20	150	Lw, Pw Fd Others	2.0 1.4 1.0	2.0
110	ICHmw5_110_mitd_1.7	1057601	CwHw – Oak fern	Cw Hw $Fd^{1,14,32,58}$ $Lw^{1,14,32}$ Sx	Bl^{500} Pw^{31}	1200	700	600	4	9	20	150	Lw, Pw Fd Others	2.0 1.4 1.0	1.7

	110	ICHmw5_110_multilayer	1057602	CwHw – Oak fern	Cw Hw Fd^{1,14,32,58} Lw^{1,14,32} Sx	Bl^{500} Pw^{31}	1200	700	600	4	9	20	150			2.0
	111	ICHmw5_111_mitd_2.0	1057603	CwHw – Devil's club – Lady fern	Cw^{32} Sx	Bl^{500} Fd^{1,32} Hw^{32} Lw^{1,32} Pw^{31}	1200	700	600	4	9	20	150	Lw, Pw Fd Others	2.0 1.4 1.0	2.0
	111	ICHmw5_111_mitd_1.7	1057604	CwHw – Devil's club – Lady fern	Cw^{32} Sx	Bl^{500} Fd^{1,32} Hw^{32} Lw^{1,32} Pw^{31}	1200	700	600	4	9	20	150	Lw, Pw Fd Others	2.0 1.4 1.0	1.7
	111	ICHmw5_111_multilayer	1057605	CwHw – Devil's club – Lady fern	Cw^{32} Sx	Bl^{500} Fd^{1,32} Hw^{32} Lw^{1,32} Pw^{31}	1200	700	600	4	9	20	150			2.0
	112	ICHmw5_112_mitd_2.0	1057606	Sxw(Hw) – Huckleberry – Oak fern	Bl^{1,500} Sx^{1}	Hw^{1,32} Cw^{1,32}	1200	700	600	4	9	20	150	All	1.0	2.0
	112	ICHmw5_112_mitd_1.7	1057607	Sxw(Hw) – Huckleberry – Oak fern	Bl^{1,500} Sx^{1}	Hw^{1,32} Cw^{1,32}	1200	700	600	4	9	20	150	All	1.0	1.7
	112	ICHmw5_112_mitd_multilayer	1057608	Sxw(Hw) – Huckleberry – Oak fern	Bl^{1,500} Sx^{1}	Hw^{1,32} Cw^{1,32}	1200	700	600	4	9	20	150			2.0
	113	ICHmw5_113	1057609	CwSxw – Skunk cabbage	Cw^{1,32} Sx^{1}	Bl^{1,500} Hw^{1,32}	1000	500	400	4	9	20	150	All	0.8	2.0
	113	ICHmw5_113_multilayer	1057610	CwSxw – Skunk cabbage	Cw^{1,32} Sx^{1}	Bl^{1,500} Hw^{1,32}	1000	500	400	4	9	20	150			2.0
ICHxw	101	ICHxw_101_mitd_2.0	1057611	CwFd – Hazelnut – Sarsaparilla	Fd^{58} Lw Pw^{31}	Bg Cw Pl Py^{9,203}	1200	700	600	7	12	20	150	Lw, Pl, Pw Fd Others	2.0 1.4 1.0	2.0

101	ICHxw_101_mitd_1.7	1057612	CwFd – Hazelnut – Sarsaparilla	Fd[58] Lw Pw[31]	Bg Cw Pl Py[9,203]	1200	700	600	7	12	20	150	Lw, Pl, Pw Fd Others	2.0 1.4 1.0	1.7
101	ICHxw_101_multilayer	1057613	CwFd – Hazelnut – Sarsaparilla	Fd[58] Lw Pw[31]	Bg Cw Pl Py[9,203]	1200	700	600	7	12	20	150			2.0
102	ICHxw_102	1057614	FdPy – Oceanspray – Bluebunch wheatgrass	Fd Py		800	400	400	7	12	20	150	Fd Others	1.0 0.8	2.0
102	ICHxw_102_multilayer	1057615	FdPy – Oceanspray – Bluebunch wheatgrass	Fd Py		800	400	400	7	12	20	150			2.0
103	ICHxw_103	1057616	FdPy – Oregon-grape – Pinegrass	Fd Py	Lw	800	400	400	7	12	20	150	Lw Fd Others	1.4 1.0 0.8	2.0
103	ICHxw_103_multilayer	1057617	FdPy – Oregon-grape – Pinegrass	Fd Py	Lw	800	400	400	7	12	20	150			2.0
104	ICHxw_104	1057618 *** *** ***	Fd(Py) – Douglas maple – Pinegrass	Fd Lw Py[203]	Bg Pl Pw[31]	1000	500	400	7	12	20	150	Lw, Pl, Pw Fd Others	2.0 1.4 1.0	2.0
104	ICHxw_104_multilayer	1057620 ***	Fd(Py) – Douglas maple – Pinegrass	Fd Lw Py[203]	Bg Pl Pw[31]	1000	500	400	7	12	20	150			2.0
110	ICHxw_110_mitd_2.0	1057644	CwHw – Foamflower	Cw Fd[1,58] Lw[1] Pw[1,31]	Hw Bg Sx[12]	1200	700	600	7	12	20	150	Lw Fd Others	2.0 1.4 1.0	2.0

	110	ICHxw_110_mitd_1.7	1057645	CwHw – Foamflower	Cw Fd[1,58] Lw[1] Pw[1,31]	Hw Bg Sx[12]	1200	700	600	7	12	20	150	Lw Fd Others	2.0 1.4 1.0	1.7
	110	ICHxw_110_multilayer	1057646	CwHw – Foamflower	Cw Fd[1,58] Lw[1] Pw[1,31]	Hw Bg Sx[12]	1200	700	600	7	12	20	150			2.0
	111	ICHxw_111_mitd_2.0	1057647	CwHw – Oak fern	Cw Fd[1,58] Lw[1] Pw[1,31]	Hw Bg Sx[12]	1200	700	600	4	9	20	150	Lw, Pw Fd Others	2.0 1.4 1.0	2.0
	111	ICHxw_111_mitd_1.7	1057648	CwHw – Oak fern	Cw Fd[1,58] Lw[1] Pw[1,31]	Hw Bg Sx[12]	1200	700	600	4	9	20	150	Lw, Pw Fd Others	2.0 1.4 1.0	1.7
	111	ICHxw_111_multilayer	1057649	CwHw – Oak fern	Cw Fd[1,58] Lw[1] Pw[1,31]	Hw Bg Sx[12]	1200	700	600	4	9	20	150			2.0
	112	ICHxw_112	1057650	CwHw – Horsetail – Lady fern	Sx[1] Cw[1,32]	Hw[1,32] Pw[31]	1000	500	400	4	9	20	150	Pw Others	1.4 0.8	2.0
	112	ICHxw_112_multilayer	1057651	CwHw – Horsetail – Lady fern	Sx[1] Cw[1,32]	Hw[1,32] Pw[31]	1000	500	400	4	9	20	150			2.0
	113	ICHxw_113	1057652	CwSxw – Skunk cabbage	Sx[1] Cw[1,32]	Hw[1,32] Pw[31]	1000	500	400	4	9	20	150	All	0.8	2.0
	113	ICHxw_113_multilayer	1057653 ***	CwSxw – Skunk cabbage	Sx[1] Cw[1,32]	Hw[1,32] Pw[31]	1000	500	400	4	9	20	150			2.0
ICHxwa	101	ICHxwa_101_mitd_2.0	1057655	CwFd – Hazelnut – Sarsaparilla	Fd[58] Lw Py[9,203]	Bg Cw Pw[31]	1200	700	600	7	12	20	150	Lw, Pl, Pw Fd Others	2.0 1.4 1.0	2.0
	101	ICHxwa_101_mitd_1.7	1057656	CwFd – Hazelnut – Sarsaparilla	Fd[58] Lw Py[9,203]	Bg Cw Pw[31]	1200	700	600	7	12	20	150	Lw, Pl, Pw	2.0	1.7

														Fd	1.4	
														Others	1.0	
101	ICHxwa_101_multilayer	1057657	CwFd – Hazelnut – Sarsaparilla	Fd[58] Lw Py[9,203]	Bg Cw Pw[31]	1200	700	600	7	12	20	150				2.0
		***														
102	ICHxwa_102	1057659	FdPy – Oceanspray – Bluebunch wheatgrass	Fd Py		800	400	400	7	12	20	150	Fd	1.0		2.0
													Others	0.8		
102	ICHxwa_102_multilayer	1057660	FdPy – Oceanspray – Bluebunch wheatgrass	Fd Py		800	400	400	7	12	20	150				2.0
103	ICHxwa_103	1057661	FdPy – Oregon-grape – Pinegrass	Fd Py	Lw	800	400	400	7	12	20	150	Lw	1.4		2.0
													Fd	1.0		
													Others	0.8		
103	ICHxwa_103_multilayer	1057662	FdPy – Oregon-grape – Pinegrass	Fd Py	Lw	800	400	400	7	12	20	150				2.0
104	ICHxwa_104	1057663	Fd(Py) – Douglas maple – Pinegrass	Fd Lw Py	Bg Pl Pw[31]	1000	500	400	7	12	20	150	Lw, Pl, Pw	2.0		2.0
		***											Fd	1.4		
		***											Others	1.0		
		***														
104	ICHxwa_104_multilayer	1057665	Fd(Py) – Douglas maple – Pinegrass	Fd Lw Py	Bg Pl Pw[31]	1000	500	400	7	12	20	150				2.0
110	ICHxwa_110_mitd_2.0	1057666	CwHw – Foamflower	Cw Fd[1,58] Lw[1] Pw[1,31]	Hw Bg Sx[12]	1200	700	600	7	12	20	150	Lw, Pw	2.0		2.0
													Fd	1.4		
													Others	1.0		
110	ICHxwa_110_mitd_1.7	1057667	CwHw – Foamflower	Cw Fd[1,58] Lw[1] Pw[1,31]	Hw Bg Sx[12]	1200	700	600	7	12	20	150	Lw, Pw	2.0		1.7
													Fd	1.4		

													Others	1.0	
110	ICHxwa_110_multilayer	1057668	CwHw – Foamflower	Cw $Fd^{1,58}$ Lw^{1} $Pw^{1,31}$	Hw Bg Sx^{12}	1200	700	600	7	12	20	150			2.0
111	ICHxwa_111_mitd_2.0	1057669	CwHw – Oak fern	Cw $Fd^{1,58}$ Lw^{1} $Pw^{1,31}$	Hw Bg Sx^{12}	1200	700	600	4	9	20	150	Lw, Pw	2.0	2.0
													Fd	1.4	
													Others	1.0	
111	ICHxwa_111_mitd_1.7	1057670	CwHw – Oak fern	Cw $Fd^{1,58}$ Lw^{1} $Pw^{1,31}$	Hw Bg Sx^{12}	1200	700	600	4	9	20	150	Lw, Pw	2.0	1.7
													Fd	1.4	
													Others	1.0	
111	ICHxwa_111_multilayer	1057671 *** ***	CwHw – Oak fern	Cw $Fd^{1,58}$ Lw^{1} $Pw^{1,31}$	Hw Bg Sx^{12}	1200	700	600	4	9	20	150			2.0
112	ICHxwa_112	1057673	CwHw – Horsetail – Lady fern	Sx^{1} $Cw^{1,32}$	$Hw^{1,32}$ Pw^{31}	1000	500	400	4	9	20	150	Pw	1.4	2.0
													Others	0.8	
112	ICHxwa_112_multilayer	1057674	CwHw – Horsetail – Lady fern	Sx^{1} $Cw^{1,32}$	$Hw^{1,32}$ Pw^{31}	1000	500	400	4	9	20	150			2.0
113	ICHxwa_113	1057675	CwSxw – Skunk cabbage	Sx^{1} $Cw^{1,32}$	$Hw^{1,32}$ Pw^{31}	1000	500	400	4	9	20	150	All	0.8	2.0
113	ICHxwa_113_multilayer	1057676 ***	CwSxw – Skunk cabbage	Sx^{1} $Cw^{1,32}$	$Hw^{1,32}$ Pw^{31}	1000	500	400	4	9	20	150			2.0
The following standards are from the 'old' BEC (not in LHM 70). (March 2018)															
		***													
ESSFdc2		***													
01	ESSFdc2_01_mitd_2.0	1057877	Bl- Rhododendron - G	$Bl^{201\ 500}$ Sx	Pl ^{200}	1200	700	600	4	12	20	125	Pl	1.6	2.0
													Others	0.8	
01	ESSFdc2_01_mitd_1.7	1057878	Bl- Rhododendron - G	$Bl^{201\ 500}$ Sx	Pl ^{200}	1200	700	600	4	12	20	125	Pl	1.6	1.7
													Others	0.8	

01	ESSFdc2_01_multilayer	1057879	Bl- Rhododendron - G	Bl$^{201\ 500}$ Sx	Pl ^{200}	1200	700	600	4	12	20	125	Pl Others	1.6 0.8	2.0
02*	ESSFdc2_02_non forested	1057880	Juniper - Pinegrass	Pl Pa^{201}	Fd$^{14\ 32}$ Bl ^{28,500} Sx^{28}	1000	500	400	7	15	20	125	Pl Others	1.2 0.6	2.0
03	ESSFdc2_03	1057881	PlSe - Falsebox Pineg	Pl Sx^{28} Fd$^{14,\ 32}$	Bl^{500}	1000	500	400	7	15	20	125	Pl Others	1.2 0.6	2.0
03	ESSFdc2_03_multilayer	1057882	PlSe - Falsebox Pineg	Pl Sx^{28} Fd$^{14,\ 32}$	Bl^{500}	1000	500	400	7	15	20	125	Pl Others	1.2 0.6	2.0
04	ESSFdc2_04	1057883	Bl - Grouseberry - Cla	Pl Sx Bl $^{201,\ 500}$		1000	500	400	7	15	20	125	Pl Others	1.2 0.6	2.0
04	ESSFdc2_04_multilayer	1057884	Bl - Grouseberry - Cla	Pl Sx Bl $^{201,\ 500}$		1000	500	400	7	15	20	125	Pl Others	1.2 0.6	2.0
05	ESSFdc2_05	1057885	Bl - Huckleberry - Feat	Pl Sx Bl $^{201,\ 500}$		1000	500	400	7	15	20	125	Pl Others	1.2 0.6	2.0
05	ESSFdc2_05_multilayer	1057886	Bl - Huckleberry - Feat	Pl Sx Bl $^{201,\ 500}$		1000	500	400	7	15	20	125	Pl Others	1.2 0.6	2.0
06	ESSFdc2_06_mitd_2.0	1057887	Bl - Gooseberry - Oak	Sx Bl$^{201,\ 500}$	Pl	1200	700	600	4	12	20	125	Pl Others	1.6 0.8	2.0
06	ESSFdc2_06_mitd_1.7	1057888	Bl - Gooseberry - Oak	Sx Bl$^{201,\ 500}$	Pl	1200	700	600	4	12	20	125	Pl Others	1.6 0.8	1.7
06	ESSFdc2_06_multilayer	1057889	Bl - Gooseberry - Oak	Sx Bl$^{201,\ 500}$	Pl	1200	700	600	4	12	20	125	Pl Others	1.6 0.8	2.0
07	ESSFdc2_07_mitd_2.0	1057890	Bl - Rhododendron - V	Sx^{32} Bl $^{201,\ 500}$	Pl ^{200}	1200	700	600	4	12	20	125	All	0.8	2.0

	07	ESSFdc2_07_mitd_1.7	1057891	Bl - Rhododendron - V	Sx^{32} $Bl^{201, 500}$	Pl^{200}	1200	700	600	4	12	20	125	All	0.8	1.7
	07	ESSFdc2_07_multilayer	1057892	Bl - Rhododendron - V	Sx^{32} $Bl^{201, 500}$	Pl^{200}	1200	700	600	4	12	20	125	All	0.8	2.0
	08	ESSFdc2_08	1057893	Bl - Trapper's tea	$Sx^{1,32}$ $Bl^{1, 500}$		1000	500	400	4	12	20	125	All	1.2	2.0
ICHwk1																
ICHwk1	01	ICHwk1_01_mitd_2.0	1057894		Cw Hw^{201} Pw^{31} $Fd^{9,14,58,203}$	$Lw^{9,14,16,32}$ $Sx^{10,13,204}$	1200	700	600	4	9	20	150	Pw	2.0	2.0
														Lw	2.0	
														Fdi	1.4	
														Others	1.0	
ICHwk1	01	ICHwk1_01_mitd_1.7	1057895		Cw Hw^{201} Pw^{31} $Fd^{9,14,58,203}$	$Lw^{9,14,16,32}$ $Sx^{10,13,204}$	1200	700	600	4	9	20	150	Pw	2.0	1.7
														Lw	2.0	
														Fdi	1.4	
														Others	1.0	
ICHwk1	01	ICHwk1_01_multilayer	1057896		Cw Hw^{201} Pw^{31} $Fd^{9,14,58,203}$	$Lw^{9,14,16,32}$ $Sx^{10,13,204}$	1200	700	600	4	9	20	150	Pw	2.0	2.0
														Lw	2.0	
														Fdi	1.4	
														Others	1.0	
ICHwk1	04	ICHwk1_04_mitd_2.0	1057897		Cw Fd^{58} Pw^{31} Hw^{201} $Lw^{9,14,16,32,201,203}$	$Sx^{10,13,204}$	1200	700	600	4	9	20	150	Pw	2.0	2.0
														Lw	2.0	
														Fdi	1.4	
														Others	1.0	
ICHwk1	04	ICHwk1_04_mitd_1.7	1057898		Cw Fd^{58} Pw^{31} Hw^{201} $Lw^{9,14,16,32,201,203}$	$Sx^{10,13,204}$	1200	700	600	4	9	20	150	Pw	2.0	1.7
														Lw	2.0	
														Fdi	1.4	
														Others	1.0	
ICHwk1	04	ICHwk1_04_multilayer	1057899		Cw Fd^{58} Pw^{31} Hw^{201} $Lw^{9,14,16,32,201,203}$	$Sx^{10,13,204}$	1200	700	600	4	9	20	150	Pw	2.0	2.0
														Lw	2.0	
														Fdi	1.4	
														Others	1.0	

ICHwk1	05	ICHwk1_05_mitd_2.0	1057900		Cw^{32} Sx^{201} Hw^{201}	Bl^{500} Pw$^{1, 31}$	1200	700	600	4	9	20	150	Pw Others	2.0 1.0	2.0
ICHwk1	05	ICHwk1_05_mitd_1.7	1057901		Cw^{32} Sx^{201} Hw^{201}	Bl^{500} Pw$^{1, 31}$	1200	700	600	4	9	20	150	Pw Others	2.0 1.0	1.7
ICHwk1	05	ICHwk1_05_multilayer	1057902		Cw^{32} Sx^{201} Hw^{201}	Bl^{500} Pw$^{1, 31}$	1200	700	600	4	9	20	150	Pw Others	2.0 1.0	2.0
ICHwk1	06	ICHwk1_06	1057903		Cw^{1,32} Sx^{1}	Bl^{500} Hw^{1,32}	1000	500	400	4	9	20	150	All	0.8	2.0
ICHwk1	06	ICHwk1_06_multilayer	1057904		Cw^{1,32} Sx^{1}	Bl^{500} Hw^{1,32}	1000	500	400	4	9	20	150	All	0.8	2.0
ICHwk1	07	ICHwk1_07	1057905		Cw^{1,32} Sx^{1}	Bl$^{1, 500}$ Hw^{1,32} Pw^{1,31,57}	1000	500	400	4	9	20	150	All	0.8	2.0
ICHwk1	08	ICHwk1_08	1057906		Cw^{1,32} Hw^{1,32} Sx^{1}	Bl^{1,500}	1000	500	400	4	9	20	150	All	0.8	2.0
ICHvk1																
ICHvk1	01	ICHvk1_01_mitd_2.0	1057907		Cw Hw^{201}Sx^{201} Fd$^{9, 14, 16, 32, 58, 203}$	Pw^{31}	1200	700	600	4	9	20	150	Pw Others	2.0 1.0	2.0
ICHvk1	01	ICHvk1_01_mitd_1.7	1057908		Cw Hw^{201}Sx^{201} Fd$^{9, 14, 16, 32, 58, 203}$	Pw^{31}	1200	700	600	4	9	20	150	Pw Others	2.0 1.0	1.7
ICHvk1	01	ICHvk1_01_multilayer	1057909		Cw Hw^{201}Sx^{201} Fd$^{9, 14, 16, 32, 58, 203}$	Pw^{31}	1200	700	600	4	9	20	150	Pw Others	2.0 1.0	2.0
ICHvk1	03	ICHvk1_03_mitd_2.0	1057910		Cw Hw^{201} Fd^{58,203} Pw^{16,31}	Sx^{10,13,204}	1200	700	600	4	9	20	150	Pw Fd Others	2.0 1.4 1.0	2.0
ICHvk1	03	ICHvk1_03_mitd_1.7	1057911		Cw Hw^{201} Fd^{58,203} Pw^{16,31}	Sx^{10,13,204}	1200	700	600	4	9	20	150	Pw Fd Others	2.0 1.4 1.0	1.7

ICHvk1	03	ICHvk1_03_multilayer	1057912	Cw Hw^{201} Fd^{58,203} Pw^{16,31}	Sx^{10,13,204}	1200	700	600	4	9	20	150	Pw Fd Others	2.0 1.4 1.0	2.0
ICHvk1	04	ICHvk1_04_mitd_2.0	1057913	Cw Hw^{201} Pw^{16,31} Fd^{9,14,16,32,58,203}	Sx	1200	700	600	4	9	20	150	Pw Fd Others	2.0 1.4 1.0	2.0
ICHvk1	04	ICHvk1_04_mitd_1.7	1057914	Cw Hw^{201} Pw^{16,31} Fd^{9,14,16,32,58,203}	Sx	1200	700	600	4	9	20	150	Pw Fd Others	2.0 1.4 1.0	1.7
ICHvk1	04	ICHvk1_04_multilayer	1057915	Cw Hw^{201} Pw^{16,31} Fd^{9,14,16,32,58,203}	Sx	1200	700	600	4	9	20	150	Pw Fd Others	2.0 1.4 1.0	2.0
ICHvk1	05	ICHvk1_05	1057916	Cw^{32} Sx Bl^{201,500}	Hw^{32}	1000	500	400	4	9	20	150	All	1.0	2.0
ICHvk1	05	ICHvk1_05_multilayer	1057917	Cw^{32} Sx Bl^{201,500}	Hw^{32}	1000	500	400	4	9	20	150	All	1.0	2.0
ICHvk1	06	ICHvk1_06	1057918	Cw^{1,32} Hw^{1,32} Sx^{1}	Bl^{1,500}	1000	500	400	4	9	20	150	All	1.0	2.0
ICHvk1	06	ICHvk1_06_multilayer	1057919	Cw^{1,32} Hw^{1,32} Sx^{1}	Bl^{1,500}	1000	500	400	4	9	20	150	All	1.0	2.0
ICHmk1															
ICHmk1	01	ICHmk1_01_mitd_2.0	1057920	Cw Fd$^{32\ 58}$ Lw^{32} Sx^{201}	Bl$^{204,\ 500}$ Pl^{200}	1200	700	600	7	12	20	150	Pl, Lw Fd Others	2.0 1.4 1.0	2.0
ICHmk1	01	ICHmk1_01_mitd_1.7	1057921	Cw Fd$^{32\ 58}$ Lw^{32} Sx^{201}	Bl$^{204,\ 500}$ Pl^{200}	1200	700	600	7	12	20	150	Pl, Lw Fd Others	2.0 1.4 1.0	1.7
ICHmk1	01	ICHmk1_01_multilayer	1057922	Cw Fd$^{32\ 58}$ Lw^{32} Sx^{201}	Bl$^{204,\ 500}$ Pl^{200}	1200	700	600	7	12	20	150	Pl, Lw Fd Others	2.0 1.4 1.0	2.0

ICHmk1	02	ICHmk1_02_rock outcrop	1057923	Fd Pl	Py[9,14,203]	800	400	400	7	12	20	150	Pl, Py Fd	1.4 1.0	2.0
IChmk1	03	ICHmk1_03	1057924	Fd Lw	Pl[200]	1000	500	400	7	12	20	150	Pl, Lw Fd Others	2.0 1.0 0.8	2.0
IChmk1	03	ICHmk1_03_multilayer	1057925	Fd Lw	Pl[200]	1000	500	400	7	12	20	150	Pl, Lw Fd Others	2.0 1.0 0.8	2.0
ICHmk1	04	ICHmk1_04_mitd_2.0	1057926	Fd[58] Pl[201] Lw	Cw[28] Sx[13,28,204]	1200	700	600	7	12	20	150	Pl, Lw Fd Others	2.0 1.4 1.0	2.0
ICHmk1	04	ICHmk1_04_mitd_1.7	1057927	Fd[58] Pl[201] Lw	Cw[28] Sx[13,28,204]	1200	700	600	7	12	20	150	Pl, Lw Fd Others	2.0 1.4 1.0	1.7
ICHmk1	04	ICHmk1_04_multilayer	1057928	Fd[58] Pl[201] Lw	Cw[28] Sx[13,28,204]	1200	700	600	7	12	20	150	Pl, Lw Fd Others	2.0 1.4 1.0	2.0
ICHmk1	05	ICHmk1_05_mitd_2.0	1057929	Sx Cw Fd [32 58] Lw [32]	Pl Bl[201, 500]	1200	700	600	7	12	20	150	Pl, Lw Fd Others	2.0 1.4 1.0	2.0
ICHmk1	05	ICHmk1_05_mitd_1.7	1057930	Sx Cw Fd [32 58] Lw [32]	Pl Bl[201, 500]	1200	700	600	7	12	20	150	Pl, Lw Fd Others	2.0 1.4 1.0	1.7
ICHmk1	05	ICHmk1_05_multilayer	1057931	Sx Cw Fd [32 58] Lw [32]	Pl Bl[201, 500]	1200	700	600	7	12	20	150	Pl, Lw Fd Others	2.0 1.4 1.0	2.0

ICHmk1	06	ICHmk1_06_mitd_2.0	1057932		Sx Cw Fd^{32,58} Bl$^{201,\ 500}$	Pl Lw$^{1,\ 32}$	1200	700	600	4	9	20	150	Pl, Lw Fd Others	2.0 1.4 1.0	2.0
ICHmk1	06	ICHmk1_06_mitd_1.7	1057933		Sx Cw Fd^{32,58} Bl$^{201,\ 500}$	Pl Lw$^{1,\ 32}$	1200	700	600	4	9	20	150	Pl, Lw Fd Others	2.0 1.4 1.0	1.7
ICHmk1	06	ICHmk1_06_multilayer	1057934		Sx Cw Fd^{32,58} Bl$^{201,\ 500}$	Pl Lw$^{1,\ 32}$	1200	700	600	4	9	20	150	Pl, Lw Fd Others	2.0 1.4 1.0	2.0
ICHmk1	07	ICHmk1_07	1057935		Bl$^{1,201,\ 500}$ Sx^{1} Cw$^{1,\ 32}$	Pl^{1}	1000	500	400	4	9	20	150	Pl Others	1.4 0.8	2.0
IDFdm1	01	IDFdm1_01	1057936		Fd^{32} Lw^{32}	Pl Py^{9,14}	1000	500	400	7	12	20	125	Pl,Lw Fd Others	1.0 0.8 0.6	2.0
IDFdm1	01	IDFdm1_01_multilayer	1057937		Fd^{32} Lw^{32}	Pl Py^{9,14}	1000	500	400	7	12	20	125	Pl,Lw Fd Others	1.0 0.8 0.6	2.0
IDFdm1	03	IDFdm1_03	1057938		Fd^{27} Py	Pl^{204}	800	400	400	7	12	20	125	Pl Fd Py	1.0 0.8 0.6	2.0
IDFdm1	03	IDFdm1_03_multilayer	1057939		Fd^{27} Py	Pl^{204}	800	400	400	7	12	20	125	Pl Fd Py	1.0 0.8 0.6	2.0
IDFdm1	04	IDFdm1_04	1057940		Fd^{32} Lw^{32} Py^{9,14}	Pl^{28}	1000	500	400	7	12	20	125	Fd Others	0.8 0.6	2.0
IDFdm1	04	IDFdm1_04_multilayer	1057941		Fd^{32} Lw^{32} Py^{9,14}	Pl^{28}	1000	500	400	7	12	20	125	Fd Others	0.8 0.6	2.0

IDFdm1	05	IDFdm1_05_mitd_2.0	1057942		Fd[32] Lw[32] Sx	Cw[32] Pl	1200	700	600	7	12	20	125	All	0.8	2.0
IDFdm1	05	IDFdm1_05_mitd_1.7	1057943		Fd[32] Lw[32] Sx	Cw[32] Pl	1200	700	600	7	12	20	125	All	0.8	1.7
IDFdm1	05	IDFdm1_05_multilayer	1057944		Fd[32] Lw[32] Sx	Cw[32] Pl	1200	700	600	7	12	20	125	All	0.8	2.0
IDFdm1	06	IDFdm1_06_mitd_2.0	1057945		Fd[32] Lw[32] Sx	Cw[32] Pl	1200	700	600	4	12	20	125	All	0.8	2.0
IDFdm1	06	IDFdm1_06_mitd_1.7	1057946		Fd[32] Lw[32] Sx	Cw[32] Pl	1200	700	600	4	12	20	125	All	0.8	1.7
IDFdm1	06	IDFdm1_06_multilayer	1057947		Fd[32] Lw[32] Sx	Cw[32] Pl	1200	700	600	4	12	20	125	All	0.8	2.0
IDFdm1	07	IDFdm1_07	1057948		Sx[1]	Cw[1,14,32] Pl[1]	1000	500	400	4	12	20	125	All	0.8	2.0
IDFxh4	01	IDFxh4_01	1057949		Fd Lw	Py	1000	500	400	7	12	20	125	Lw Others	1.0 0.6	2.0
IDFxh4	01	IDFxh4_01_multilayer	1057950		Fd Lw	Py	1000	500	400	7	12	20	125	Lw Others	1.0 0.6	2.0
IDFxh4	02	IDFxh4_02	1057951		Py[27] Fd[27]		800	400	400	7	12	20	125	All	0.6	2.0
IDFxh4	02	IDFxh4_02_multilayer	1057952		Py[27] Fd[27]		800	400	400	7	12	20	125	All	0.6	2.0
IDFxh4	03	IDFxh4_03_mitd_2.0	1057953		Fd Lw	Sx Pl[12]	1200	700	600	7	12	20	125	Lw Others	1.0 0.6	2.0
IDFxh4	03	IDFxh4_03_mitd_1.7	1057954		Fd Lw	Sx Pl[12]	1200	700	600	7	12	20	125	Lw Others	1.0 0.6	1.7
IDFxh4	03	IDFxh4_03_multilayer	1057955		Fd Lw	Sx Pl[12]	1200	700	600	7	12	20	125	Lw Others	1.0 0.6	2.0
IDFxh4	04	IDFxh4_04_mitd_2.0	1057956		Fd[1,32]Lw[1,32]Sx		1200	700	600	4	12	20	125	Lw Others	1.0 0.6	2.0

IDFxh4	04	IDFxh4_04_mitd_1.7	1057957		Fd^{1,32}Lw^{1,32}Sx		1200	700	600	4	12	20	125	Lw Others	1.0 0.6	1.7
IDFxh4	04	IDFxh4_04_multilayer	1057958		Fd^{1,32}Lw^{1,32}Sx		1200	700	600	4	12	20	125	Lw Others	1.0 0.6	2.0
IDFxh4	05	IDFxh4_05	1057959		Sx	Fd^{1,32}Lw^{1,32}	1000	500	400	4	12	20	125	Lw Others	1.0 0.6	2.0
IDFxh4	05	IDFxh4_05_multilayer	1057960		Sx	Fd^{1,32}Lw^{1,32}	1000	500	400	4	12	20	125	Lw Others	1.0 0.6	2.0
IDFxh4	06	IDFxh4_06	1057961		Act At	Cw^{1,32}Sx^{1,32}	400	200	200	4	12	20	125	All	0.6	2.0
IDFxh4	06	IDFxh4_06_multilayer	1057962		Act At	Cw^{1,32}Sx^{1,32}	400	200	200	4	12	20	125	All	0.6	2.0
MSdm1	01	MSdm1_01_mitd_2.0	1057963		Lw^{14,32} Sx Fd^{14,32}	Bl^{500} Pl	1200	700	600	7	12	20	125	Pl,Lw Others	1.4 0.8	2.0
MSdm1	01	MSdm1_01_mitd_1.7	1057964		Lw^{14,32} Sx Fd^{14,32}	Bl^{500} Pl	1200	700	600	7	12	20	125	Pl,Lw Others	1.4 0.8	1.7
MSdm1	01	MSdm1_01_multilayer	1057965		Lw^{14,32} Sx Fd^{14,32}	Bl^{500} Pl	1200	700	600	7	12	20	125	Pl,Lw Others	1.4 0.8	2.0
MSdm1	02	MSdm1_02	1057966		Fd Lw Pl^{201}	Py^{9,14,16,203}	800	400	400	7	12	20	125	Pl,Lw Others	1.0 0.6	2.0
MSdm1	02	MSdm1_02_multilayer	1057967		Fd Lw Pl^{201}	Py^{9,14,16,203}	800	400	400	7	12	20	125	Pl,Lw Others	1.0 0.6	2.0
MSdm1	03	MSdm1_03	1057968		Fd^{32} Lw^{32} Pl^{201}	Sx^{28}	1000	500	400	7	12	20	125	Pli,Lw Others	1.0 0.6	2.0

MSdm1	03	MSdm1_03_multilayer	1057969	Fd[32] Lw[32] Pl[201]	Sx[28]	1000	500	400	7	12	20	125	Pli,Lw Others	1.0 0.6	2.0
MSdm1	04	MSdm1_04_mitd_2.0	1057970	Fd Lw Pl[201]	Sx[28] Py[9,14,16,203]	1200	700	600	7	12	20	125	Pli,Lw Others	1.4 0.8	2.0
MSdm1	04	MSdm1_04_mitd_1.7	1057971	Fd Lw Pl[201]	Sx[28] Py[9,14,16,203]	1200	700	600	7	12	20	125	Pli,Lw Others	1.4 0.8	1.7
MSdm1	04	MSdm1_04_multilayer	1057972	Fd Lw Pl[201]	Sx[28] Py[9,14,16,203]	1200	700	600	7	12	20	125	Pli,Lw Others	1.4 0.8	2.0
MSdm1	05	MSdm1_05_mitd_2.0	1057973	Pl Sx	Bl[500] Lw[14, 32]	1200	700	600	4	9	20	125	Pli,Lw Others	1.4 0.8	2.0
MSdm1	05	MSdm1_05_mitd_1.7	1057974	Pl Sx	Bl[500] Lw[14, 32]	1200	700	600	4	9	20	125	Pli,Lw Others	1.4 0.8	1.7
MSdm1	05	MSdm1_05_multilayer	1057975	Pl Sx	Bl[500] Lw[14, 32]	1200	700	600	4	9	20	125	Pli,Lw Others	1.4 0.8	2.0
MSdm1	06	MSdm1_06_mitd_2.0	1057976	Sx Bl[201, 500]	Cw[32] Fd[14 32] Lw[14, 32] Pl[200]	1200	700	600	4	9	20	125	Pli,Lw Others	1.4 0.8	2.0
MSdm1	06	MSdm1_06_mitd_1.7	1057977	Sx Bl[201, 500]	Cw[32] Fd[14 32] Lw[14, 32] Pl[200]	1200	700	600	4	9	20	125	Pli,Lw Others	1.4 0.8	1.7
MSdm1	06	MSdm1_06_multilayer	1057978	Sx Bl[201, 500]	Cw[32] Fd[14 32] Lw[14, 32] Pl[200]	1200	700	600	4	9	20	125	Pli,Lw Others	1.4 0.8	2.0
MSdm1	07	MSdm1_07	1057979	Sx[1] Bl[1, 201, 500]	Pl[1]	1000	500	400	4	9	20	125	Pl Others	1.0 0.6	2.0
MSdm1	08	MSdm1_08	1057980	Bl[1, 201, 500] Sx	Pl1	1200	700	600	4	9	20	125	Pli,Lw Others	1.4 0.8	2.0

PPdh1			(old PPxh3)												
PPdh1	01	PPdh1_01	1057981		Py Fd[27]	800	400	400	7	12	20	125	All	0.6	2.0
PPdh1	01	PPdh1_01_multilayer	1057982		Py Fd[27]	800	400	400	7	12	20	125	All	0.6	2.0
PPdh1	04	PPdh1_04	1057983		Fd Py	800	400	400	7	12	20	125	All	0.6	2.0
PPdh1	04	PPdh1_04_multilayer	1057984		Fd Py	800	400	400	7	12	20	125	All	0.6	2.0
PPdh1	05	PPdh1_05	1057985		Fd[1,32] Py[1]	800	400	400	7	12	20	125	All	0.6	2.0
PPdh1	05	PPdh1_05_multilayer	1057986		Fd[1,32] Py[1]	800	400	400	7	12	20	125	All	0.6	2.0

THIS IS THE END OF THE DOCUMENT.

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*****		
		Target pa	MIN pa	MIN p			Target pa	MIN pa	MIN p
(stems/ha)		(well-spaced/ha)			(stems/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

MIN - minimum

Note that Early Free Growing shows up in this document, for each SSID, for information purposes only. In RESULTS, the EFG date has been inserted as information only, and EFG has been removed.
The following is historical background only: "* 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 15 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. 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 >= 12.5 cm dbh
Layer 2	Pole	trees 7.5 cm to 12.4 cm dbh
Layer 3	Sapling	trees >= 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

Provincial and localized to DSE Footnotes

	Footnote #	Footnote	Footnote #	Footnote
Conifer Tree Species	1	suitable on elevated microsites	46	use resistant seedlot south of the Dean Channel
"Ba" means amabilis fir;	2	retired July 2017	47	risk of balsam wooly adelgid within quarantine area see http://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/animals-and-crops/plant-health/insects-and-plant-diseases/nursery-and-ornamentals/balsam-woolly-adelgid
"Bg" means grand fir;	3	suitable on coarse-textured soils	48	risk of browsing by deer
"Bl" means subalpine fir;	4	suitablemedium-textured soils	49	retired November 2010
"Bp" means noble fir;	5	footnote retired	50	restricted to sites where the species occurs as a
"Cw" means western red cedar;	6	suitable on nutrient-very-poor sites		major species in a pre-harvest, natural stand
"Fd" means Douglas-fir;	7	suitable on nutrient-medium sites	51	retired July 2017
"Hm" means mountain hemlock;	8	suitable on steep slopes	52	suitable on sheltered microsites with deep soil
"Hw" means western hemlock;	9	suitable on warm aspects	53	minor component
“Lt” means tamarack;	10	suitable on cool aspects	54	retired July 2017
"Lw" means western larch;	11	suitable on crest slope positions	55	retired July 2017
“Pa” means whitebark pine;	12	suitable on cold air drainage sites		
"Pl" means lodgepole pine;	13	suitable at upper elevations	#	**Broadleaf Management Constraints**
"Pw" means white pine;	14	suitable at lower elevations		
"Py" means ponderosa pine;	15	suitable in the northern portion of biogeoclimatic unit	a	productive, reliable, and feasible regeneration option
“Sb” means black spruce;	16	suitable in the southern portion of biogeoclimatic unit	b	limited in productivity, reliability and/or feasibility
“Se” means Engelmann spruce;	17	suitable in the western portion of biogeoclimatic unit		
"Ss" means Sitka spruce;	18	suitable in the eastern portion of biogeoclimatic unit		
“Sw” means white spruce;	19	retired July 2017	#	**Localized Footnotes**
"Sx" means hybrid spruce or interior spruce;	20	retired July 2017		
"Sxs" means hybrid Sitka spruce;	21	retired July 2017	56	retired July 2017
“Sxw” means hybrid white spruce;	22	suitable in the southern Gardner Canal-Kitlope area		
"Yc" means yellow cedar.	23	retired July 2017	57	retired November 2010
Broadleaf Tree Species	24	suitable in wetter portion of biogeoclimatic unit	58	**South Area** - Fd limited to a max 50% of preferred and acceptable well-spaced stems in the IDFmw and all subzones of the ICH due to root rot. See Root Rot Handbook (2017, in press)
“Acb” means balsam poplar;	25	retired July 2017	59	**Prince George region** - max 1,400 total sph of aspen and cottonwood.
“Act” means black cottonwood;	26	suitable minor species on nutrient poor sites		Treat as 'ghost' trees in surveys.
“At” means trembling aspen;	27	partial high-canopy shade required for succesful establishment	60	retired July 2017
“Dr” means red alder;	28	limited by moisture deficit	61	retired July 2017
“Ep” means common paper birch;	29	risk of heavy browsing by moose	62	retired November 2010
“Mb” means bigleaf maple;	30	retired November 2010	63	retired July 2017
“Qg” means garry oak;	31	must use of blister rust resistant stock. See BC Journal of Ecosystems and Management 10(1): 97-100 for supplementary information.	66	Mackenzie forest district - may be preferred where risk of snow damage is low or risk of frost damage is excessive on spruce
“Ra” means arbutus;	32	limited by growing-season frosts	67	Retired July 2017
	33	footnote retired and replaced with footnote 'a'	68	Retired July 2017
	34	risk of snow damage	69	suitable at upper elevations of the biogeoclimatic unit only when used in the southern portion of the biogeoclimatic unit
“Biogeoclimatic unit” or “BGC classification” means the zone, subzone, variant and site series described in the most recent field guide published by the Ministry of Forests for the identiication and interpretation of ecosystems, as applicable to a harvested area.	35	use resistant stock to mitigate risk of spruce weevil damage - See Ss Weevil Decision Tool: http://pubs.cif-ifc.org/doi/abs/10.5558/tfc2013-042	70	retired July 2017
	36	retired July 2017	200	substitute for below…

Provincial and localized to DSE Footnotes

"**MIN** or "**Min**" means minimum.	37	retired November 2010	201	Maximum 50% of preferred and acceptable well-spaced trees				
	38	footnote retired	~~202~~	~~No advance regeneration in even aged stand management~~				
	39	retired July 2017	203	Recommended on sites for climate change adaptation				
	40	risk of redheart damage in areas subject to cold winter outflow w	204	Not recommended due to climate change concerns				
	41	limited by poorly drained soils	205	limited by cold temperatures				
	42	suitable on sites with a fresh soil moisture regimes	206	plant on exposed mineral soils				
	43	retired July 2017	207	obstacle planting recommended				
	44	suitable in areas of the subzone variant with relatively strong maritime influence	208	No advance regeneration in even aged stand management				
	45	suitable in areas of the subzone variant with relatively strong continental influence	500	DSE: Advance Bl regen: <1.5 m tall at time of harvest, >75% live crown, >10cm leader, no scars, forks, crooks, or sweeps, and Apical dominance >1 as measured by comparing ratio of leader height to length of most recent branch.				
			200	Pl can be moved from Acceptable to Preferred to the extent specified below only on sites where there is a low risk of damage from forest health factors: o > 50% Pl in the pre-harvest stand, Pl can be moved to preferred; o 25-50% Pl in the pre-harvest stand, Pl can be moved to preferred to a maximum of 50% well-spaced stems For areas with less than 25% Pl in the pre-harvest stand or where risk of damage from forest health factors is moderate or high, Pl remains acceptable.				
				MITD: For site series that do not already have reduced MSS, a reduced mitd of 1.7 may be used to facilitate planting superior microsites, when sites have: mechanical site preparation (mounding & disk trenching), been previously fill planted, or conditions where obstacle planting for snow creep is necessary. Reduced MITD applies to PLANTED TREES ONLY.				

Footnote	Historic Footnote	Date Retired
2	suitable on thick forest floors	retired July 2017
5		footnote retired
19	restricted, not in Queen Charlotte Islands	retired July 2017
20	restricted, not near outer coast	retired July 2017
21	restricted to mainland	retired July 2017
23	restricted to trial use	retired July 2017
25	suitable on sites lacking salal	retired July 2017; replaced with fn 7
30	Risk of porcupine damage	retired November 2010
33	footnote retired and replaced with footnote 'a'	retired July 2017
36	suitable major species on salal-dominated sites	retired July 2017
37	Risk of heart rots	retired November 2010
38		footnote retired
39	avoid exposed and windy sites	retired July 2017
43	suitable on mainland coast only (QCI only)	retired July 2017
46	restricted to area north of the Dean Channel	retired July 2017
49		retired November 2010
51	restricted to areas with proven Pl performance	retired July 2017
54	risk of unsuccessful release of advance regeneration	retired July 2017
55	acceptable in sx-sm portion of site series	retired July 2017
56	**Kalum** forest district - see footnote 35	retired July 2017
57	retired November 2010 see footnote 31	retired November 2010
60	**Squamish** forest district - species is acceptable in Squamish forest district only.	retired July 2017
61	**Squamish** forest district only - acceptable on cold air drainage sites only.	retired July 2017
62	retired November 2010 see footnote 47	retired November 2010
67	**Chilliwack** forest district - species is acceptable in Chilliwack forest district only.	retired July 2017
68	**Chilliwack** forest district - species is preferred in Chilliwack forest district only.	retired July 2017
70	**Pr Rupert** region - Hw is restricted to a maximum of 50% of the well spaced stems at free growing	retired July 2017

Date September 16, 2022

Amendment #3 to the existing Selkirk District Default Stocking Standards Dated April 16, 2018.

The intent of this amendment is to address:

1. Extension of late Free growing on fire and other damaged stands under a Section 108 claim;
2. Allow for a change to Minimum Inter-Tree Distance (MITD) both the distance and circumstances
3. Allow for Sub-maritime Coastal Douglas-fir (Fdc) to be planted to a limited extent
4. Remove maximum conifer density guidelines and standards from the default standards as per the Chief Forester May 25, 2022 Guidance.
5. Footnote 58 approved Variation

1. Late Free Growing Extensions under Section 108 – Approved Variation

Due to wildfire or other natural disturbances allowed for claims under Section 108 it is often necessary to extend late Free Growing to allow time for the replanted/ reforested stands to meet their Free Growing obligations. Since there is no process within RESULTS to reset the clock based on a natural disturbance, this approved variation allows for the late Free Growing time to be reset to 20 years from the year of the fire. All other standards remain the same. Note that the Month and Day will remain based on the original harvest disturbance of the Opening/ Block due to RESULTS system limitations.

2. Minimum Inter-Tree Distance (MITD) – Approved Variation

The change is to allow for an MITD as low as 1.6 metres in the following circumstances:

1. Fill planting or re-planting situations (a re-plant is when the stand has been surveyed as NSR/ below minimum stocking standards, a fill plant is when stocking is above minimum stocking at time of survey/ planting).
2. Mechanically site prepared sites.
3. Planting on Hydric or sub-hygric sites.
4. Obstacle planting for sites deemed to:
    a. have high grazing domestic animal pressure (cattle and others) or
    b. a high probability of snow creep damage to seedlings on steeper slopes in heavy snow fall areas

This lower MITD is to be used only for spacing between Layer 3 and 4 planted trees and planted trees with natural layer 3 and/ or 4 trees. It is not approved for using between planted trees and Layers 1 and 2 retained trees. The MITD for these remains at 2.0 metres. It is also not approved for use with a naturally regenerated stand.

3. Sub-Maritime Coastal Douglas-fir (Fdc) – Approved Variation

Allow for Sub-Maritime A Class Coastal Douglas-fir to be planted and included in the stocking standards on ICH sites based on Progeny trial research by Ministry of Forests Tree Breeders. Fdc can be planted and substituted for Fdi where Fdi is currently a Preferred Species and Fdc would have the same status within the existing DSE Default stocking standards. Planting is limited to max 50% of the species on a single block as per the rules for Fdi. Given this is an operational trial at this time planting is to be limited to a maximum of 5% of an annual planting program for an individual Licencee or 50,000 seedlings, whichever is greater.

4. **Maximum Density Change – Approved Variation**

The maximum density measurement and standard and subsequent spacing requirements are removed from the standard and no longer a requirement based on the recommendation from the Chief Forester and within the CF Memo dated May 25, 2022 "Chief forester's updated guidance on maximum density for free growing obligations"

5. **Footnote 58 – Approved Variation**

For any Selkirk District Default standards with Footnote 58 stating that Fdi may not be counted for more than 50% of the Free Growing Stems at the time of FG survey and declaration this is changed to Fd (Fdi or Fdc) is not to be planted to more than 50% of the total stems planted in a Standard Unit on a block.

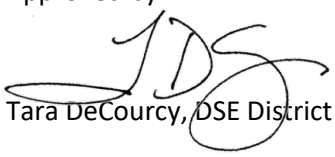
If Root disease management in the form of Stump removal has been undertaken, then there is no restriction on the percentage of Douglas-fir that can be planted or counted at the time of planting or Free Growing survey. The removal of this restriction is only for those areas within an Opening or Standard Unit where stump removal was performed.

Prepared by:

Dean Christianson RPF #3331

Acting Stewardship Officer

Approved by:



Tara DeCourcy, DSE District Manager

Interior Douglas-fir (IDF) Uneven-aged Stocking Standards* - Single-tree selection only

These stocking standards have been developed for IDF subzones and are only recommended for use in the IDF and for woodlots.

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*****		
		Target pa	MIN pa	MIN p			Target pa	MIN pa	MIN p
(stems/ha)		(well-spaced/ha)			(stems/ha)		(well-spaced/ha)		
1200	1	600	300	250	**800**	1	300	150	150
ID 86000 (all layers)	2	800	400	300	**ID 86003 (all layers)**	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
ID 86001 (all layers)	2	600	300	250	**ID 86004 (all layers)**	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
ID 86002 (all layers)	2	500	300	250	**ID 86005 (all layers)**	2	300	125	125
	3	700	400	300		3	300	150	150
	4	900	500	400		4	400	200	200

MIN - minimum

* 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 15 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. 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 >= 12.5 cm dbh
Layer 2	Pole	trees 7.5 cm to 12.4 cm dbh
Layer 3	Sapling	trees >= 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.

Coastal Uneven-aged Stocking Standards - Single Entry Dispersed Retention System

The Interior uneven-aged stocking standards are not recommended for use in the Coast Forest Region, with the exception of woodlots. Please refer to the " Single Entry Dispersed Retention System Stocking Standard Discussion Paper" dated November 2nd, 2009 prepared by the Silviculture Working Group of the Coast Region FRPA Implementation Team for stocking standard recommendations.

Date February 8, 2023

Amendment #4 to the existing Selkirk District Default Stocking Standards Dated April 16, 2018.

The intent of this amendment is to address:

1. Allow for Intermediate Cut Standards.

Intermediate Cut Standards – New Standards

Discussion

Prescribers should give careful consideration for which stand types to use Intermediate Cuts and the associated standard. Intermediate cuts are often used where other values are prioritized such as visuals, water, and wildlife to name a few. As an example of where not to use an Intermediate Cut, high percentage Lodgepole pine stands may not be good choices due to high probability of blowdown and snow breakage in these stands post harvest. A good example of when to use and Intermediate Cut might be in a sensitive wildlife or riparian area/ watershed area.

This standard is proposed and recommended for use in mature stands not in younger stands where commercial thinning may be considered, a separate standard is being considered for younger stand commercial thinning operations. Intermediate Cuts are meant to leave a fully stocked/ occupied stand after harvest with no regeneration objectives. Retained species are based on default even aged stocking standards in place for Selkirk District with some provision for variation if significant non-preferred or acceptable species exist on site. Prescriptions and harvesting operations should consider which species will perform best post harvest given climate change and known forest health factors (biotic and abiotic) for each species and retain species with a higher probability of surviving and growing well. Armillaria Root disease is a significant concern, especially in the ICH, and should be considered in terms of moving forward with a partial cut and timing of subsequent harvest as well as tree species retention choices. Where species prescribed to be retained do not match even aged species standards or other allowed variation then Licencees should propose a new standard in the form of a one off for the site(s).

Stocking Standards

Intermediate Harvest SSID #1070980 – 20 m2 Basal Area Minimum retention
#1071542 - 15 m2 Basal Area Minimum retention

Where a stand is harvested consistent with the Forest Planning and Practices Regulation (FPPR) section 44 (4), other than harvesting for the purpose of uneven-aged management, it shall be deemed an intermediate harvest where the harvested stand complies with the conditions specified below for a minimum period of 12 months following the completion of harvesting. Woodlot Licence holders may elect to use these standards to where the stand is harvested in consistent with the Woodlot Licence Planning and Practice Regulation (WLPPR) section 34 (2d)

a) greater than or equal to 20 m^2 average minimum retention basal area (BA) must be retained in trees with a diameter at breast height of ≥ 12.5 cm for Pli and ≥ 17.5 cm for all other conifer species; or ≥ 15 m^2 within PP and IDF BGC zones or within a Woodlot Licence; and

b) retain a minimum of 50% of the pre-harvest conifer basal area (based on timber cruise or other field survey); and

c) no contiguous area > 2 ha or 10% of the total SU area, whichever is less, has a retained basal area less than the minimum basal area; and

d) trees contributing to the retained basal area must be the species identified as preferred and/ or acceptable in the DSE Default Stocking Standards under even-aged standards or of sa pecies that comprises > 10% of the pre-harvest merchantable cruise volume for the block; and

e) greater than 50% of the contributing retained basal area must be a preferred tree species as defined in the DSE default stocking standards, if it existed on site prior to harvest; and

f) trees contributing to the retained basal area comply with the attributes defined in the Silviculture Surveys Procedures Manual "Free growing damage criteria for single entry dispersed retention stocking standard (SEDRSS) managed stands, Interior Deviation from Potential (DFP) and Layered Surveys".

Intermediate cuts have no regeneration objectives.

Deciduous Broadleaf trees,(Aspen, Cottonwood and Birch (At, Ac and Ep) do not count towards the calculation of the initial Basal Area or the retained basal area unless they are retained and managed consistent with a result and strategy contained within the approved FSP.

Minimum post-harvest retention assessment and declaration is set at 1 year after the last day of harvest activity and Maximum assessment and declaration is set at 3 years from initial harvest start. Approved Variation: Late declaration can be extended for up to 2 additional years if harvest activity is protracted beyond 1 year or more. If additional time is needed, then Licencee should consider additional standard units based on harvest timeframes or submitting a new Stocking Standard on their FSP or WLP.

Where harvesting is deemed to be an intermediate cut based on the condition a minimum of 12 months following the completion of harvesting, the standards unit is exempt from the requirements to produce a free growing stand, consistent with FPPR section 44(3)(h) and WLPPR 34(3).

If during the 12 months period following the completion of harvesting the conditions specified below are not maintained, the Licensee shall hold a free growing obligation on the harvested area and the appropriate stocking standards in the Selkirk District Default standards or alternate approved even aged standards within the Licencee's Forest Stewardship Plan shall be applied.

Variations to Preferred or Acceptable Species

The preferred and/or acceptable species in the stocking standards in the Selkirk District Default Standards may be varied to the extent specified below in the following situation and circumstances. Where greater than **10%** of the total merchantable volume on the area of a SU, based on a timber cruise, is of a conifer species not identified in the approved stocking standards, that species may be designated an acceptable species where it is ecologically suitable.

Discussion:

Prescribers should carefully consider the use of intermediate cuts and where they would be appropriate. Some issues to consider include:

1. Forest health factors such as Armillaria and other root diseases, bark beetles, spruce budworm to name a few.
2. Species – Lodgepole pine for example may not be the best choice to retain in an intermediate cut in most situations unless possibly beetle proofing with a high retention rate. Where Pli makes up a component of a stand then it may be preferrable to remove most or all of the Pli in the initial cut as they are prone to wind damage and snow breakage.

3. The intent of an intermediate cut is to retain a fully stocked stand for potentially a variety of reasons including but not limited to: integrated resource management values other than timber, or for timber with the rationale of setting up a stand for a future cut of either continuing Intermediate cuts, converting to single tree selection, shelterwood or clearcut silviculture systems.
4. Some species of trees present, especially if in low numbers, in the stand may be subject to extreme climate events such as drought and should not be retained and used for future stocking / timber values. An example might be a higher elevation species such as spruce and sub-alpine fir in a transition site between ICH and ESSF zones and there is risk of drought.

Examples of retained basal area for clarification:

Pre-harvest conifer basal area = 45 m2, BGC = ICHmw2, Required minimum BA with this standard = 22.5 m2 of conifers
Pre-harvest conifer basal area = 34 m2, BGC = ICHmw2, Required minimum BA with this standard = 20.0 m2 of conifers
Pre-harvest conifer basal area = 32 m2, BGC = IDFmw2, Required minimum BA with this standard = 16.0 m2 of conifers
Pre-harvest conifer basal area = 24 m2, BGC = IDFmw2, Required minimum BA with this standard = 15.0 m2 of conifers

Prepared by:

Dean Christianson RPF #3331

Stewardship Forester

Approved by:

Tara DeCourcy,
District Manager
Selkirk Forest District

November 20, 2018

Fire management/ Wildland Urban Interface (WUI) stocking standards for Selkirk Resource District South Columbia

Prepared for RDCK Collaborative Community Wildfire Protection Planning Group

Prepared by Stocking Standards Committee (Erik Leslie, Dean Christianson, Tyler Hodgkinson, John Cathro)

Background

The RDCK Collaborative Community Wildfire Protection Planning Group was formed early in 2017 to address planning objectives identified in updates to several Kootenay Lake area Community Wildfire Protection Plans. The Collaborative Planning Group is comprised of representatives from FLNRORD, RDCK, City of Nelson, BC Parks, forestry licensees, private land managers, and the West Kootenay EcoSociety.

The objectives of the Group are to:

- Reduce the risk of wildfire within the WUI while protecting social and ecological values;
- Consult widely with local stakeholders to maintain the social license with communities in the WUI;
- Reduce the unit costs of wildfire risk reduction while providing economic benefits and access to timber in the WUI; and
- Develop best management practices to align wildfire risk reduction, timber harvesting and biodiversity maintenance to be used as guidelines for use across the RDCK.

The Collaborative Planning Group has identified fire management stocking standards as a top priority. In March 2017 the development of fire management standards were included in the Group's workplan and a Stocking Standards Committee was formed to develop draft standards.

This document was developed with input from others (including: Bruce Blackwell, Tom Bradley, Deb MacKillop, Selkirk District Stewardship staff).

Chief Forester's Guidance

In February 2016 the Chief Forester of BC sent a Memo to all Fire Centers, Resource Districts, and Forest Licensees to provide guidance on developing stocking standards for fire management. An accompanying Fire Management Stocking Standards Guidance Document was produced.

The Chief Forester's guidance document discusses stocking standard rationales, objectives, and stand structure and composition considerations. It discusses the importance of promoting species that are fire resistant and are ecologically suited to climate change. It also discusses the need for reduced stand densities and for developing stand structures with higher canopy base heights and low canopy bulk densities.

The Chief Forester's guidance on stocking standards foresees the development of both partial cut and clear-cut fire management standards. The CF guidance document indicates a preference for partial cuts while recognizing that partial cuts may not be practicable:

> *From a silvicultural perspective where practicable, partial cut scenarios with wind-firm, fire resilient species reserved from harvest (i.e. shaded fuel break) are preferred to clear-cut scenarios, for a number of reasons, including: amelioration of fire weather […]. That being said, it is recognized that in some stand types, clearcutting may be the only practicable option due to tree silvics, disease/ insect issues, and wind firmness (e.g., mature 100% lodgepole pine stands).*

The proposed stocking standards described below have been developed based on the principles, approach, and examples provided in the Chief Forester's guidance document. The

proposed standards are similar to other fire management stocking standards developed and approved for use across the BC southern interior and central interior.

Application

These stocking standards are designed to achieve fire management objectives as identified in a fire management plan. They would be available for application within the 2km WUI zone as designated in a CWPP. They could also potentially be applied within landscape-level fuel break areas as designated in a landscape-level fire management plan.

The draft stocking standards described below are intended to be reviewed and approved by the District Manager for inclusion in the list of District stocking standards (DSE South Columbia). These stocking standards would each be assigned their own unique SSID and could be included in any forest licensee's FSP or WLP. The prescribing forest professional would decide whether to apply the WUI standard on any given harvest site.

The following sections describe the standards to be used for fire management partial cut and even-aged stocking standards.

Post-harvest fuel hazard abatement

Post-harvest logging debris is expected to be carefully managed in all areas where fire management stocking standards are applied. Post-harvest fire hazard must be assessed and abated as required by the Wildfire Act and Regulation.

It is highly recommended that use of these standards be tied to additional post-harvest debris and fire spread management including but not limited to piling and burning, fireguard construction, spot or broadcast burn treatments and significant fuel removal or modification by hand or mechanical treatments.

Fire management partial cut (shaded fuel break) stocking standard

Intent and Guidance

These fire management partial cut stocking standards are designed to be applied where sufficient mature, healthy, larger diameter, windfirm, fire resistant trees (e.g., Lw, Py, Fd, Pw, At, Act, Ep) are present in the pre-harvest stand and can be retained to function effectively as a 'shaded fuel break.

Where there are non-windfirm, non-fire resistant or other stand conditions not conducive for creating a partial cut shaded fuel break then even aged fire management stocking standards should be considered.

The intent of this stocking standard is to describe a stand that has generally been thinned from below. Intermediate and suppressed trees and co-dominant trees of less fire tolerant species would be preferentially removed, canopy base height would be increased, and canopy closure would be reduced. Target canopy closure will generally range from ~20% – 40% with target average ~2 – 6 m spacing between crowns.

Fire management partial cut standards areas must have >=12 m^2/ha of basal area of preferred and acceptable leave trees in order to not incur a regeneration obligation. A basal area of >=12 m^2/ha can be considered a threshold where the retained overstory begins to have a significant impact on the development of understory.

If a minimum of 12 m^2/ha of preferred and acceptable leave trees cannot be retained, then the partial cut standard would not apply. In situations where basal area retention is <12 m^2/ha, the even-aged (regeneration) fire management stocking standards must be applied[1].

If greater than 22 m^2/ha of acceptable Layer 1 trees will be retained post-harvest, then the

[1] The rationale for the DSE South Columbia Default Stocking Standards (April 2018) suggests that even-aged standards should be used where <12 m^2/ha of basal area is retained.

resulting stand may be considered sufficiently stocked in the overstory for intermediate cut stocking standards to be applied. Intermediate cut definitions are as per FPPR and WLPPR.

For these fire management partial cut standards, a survey must be conducted between 1 and 3 years post-harvest to determine if sufficient acceptable leave trees are present to meet the standard. Acceptability criteria for tree form and health are included in the standards in a manner similar to that used for intermediate cuts.

The standard described below was designed in recognition that pre-harvest stand conditions are highly variable and that stocking standards will not likely be effective or widely deployed if they

Fire management partial cut standard: SSID# 1062309

Retain a minimum of 12 m^2/ha of healthy mature trees.

Acceptable leave trees must be dominant or co-dominant layer trees >17.5 cm dbh, and:

- > 25% live crown with no indicators of decline;
- Free of gouges and wounds > 1/3 of stem circumference; and
- Free of wounds on a supporting root within 1 m of the stem.

Preferred leave trees include fire resistant species (i.e., Lw, Py, Fd, Pw, At, Act, Ep) that are likely to be windfirm. Other species are acceptable where no fire resistant species of suitable form and health are available and prescribing a WUI treatment has been deemed approriate. Prescribers should consider Forest health and climate change issues if prescribing to leave other tree species, of note would be Lodgepole pine which is a shorter rotation species, subject to Mountain Pine Beetle and likely not a good longer term fuel break species choice – blowdown, etc. Broadleaf species are included as they are generally less flammable than other coniferous species and as a result may reduce fire behaviour.

are too prescriptive and/or detailed. Professional judgement is essential and innovation should be encouraged. The standard is however designed to be verifiable and includes some quantitative measures.

Geographically this standard is currently restricted to Arrow, Boundary and Kootenay Lake Timber Supply Areas

These partial cut standards are intentionally broad to encompass the variability of existing stand composition and structure in the South Selkirks.

Fire management partial cut example 1—Submesic/ subxeric FdPy site with lower density of larger trees

Volume removed: 60%

Residual basal area: 14 m^2/ha

Stand density: ~90 sph

Average stand diameter: 45 cm

Average crown width: ~6.5 m

Residual crown closure: ~25%

Shaded fuel break in PyFd stand in Winlaw Creek ICH dw1 103 (102)

Fire management partial cut example 2—mesic FdHwCw(At) site with higher density of smaller trees

Volume removed: 50%

Residual basal area: 20 m^2/ha

Stand density: ~280 sph

Average stand diameter: 30 cm

Average crown width: ~4 m

Crown closure: ~35%

Shaded fuel break in FdHwCw(At) stand in Lemon Creek submesic ICH dw1 104

Fire management even-aged stocking standards

Intent and Guidance

These fire management even-aged stocking standards are designed to be applied in areas that have <12 m^2/ha of basal area of acceptable trees and thus cannot meet the partial cut/ shaded fuel break standard[2]. These areas thus incur a regeneration obligation. To address fire management objectives, the even-aged standards promote lower conifer stocking, include deciduous species, and indicate a preference for fire resistant species and consider climate change. The primary focus for treatment in each of the BGC units listed here should be on drier than mesic sites (102, 103, 104). Standards are provided for 101 and 110 site series as a means of providing ecologically suitable species for these sites when they occur within broader fire treatment areas. The intent is that these site series are not targeted for fuel treatments since in many cases, it will be difficult and costly to prevent regeneration of trees (conifer and broadleaf species) and challenging to meet maximum conifer densities.

Deciduous species have been added to acceptable in these proposed standards. Although deciduous species may often be preferred from a strict fire management perspective, only conifers have been listed here as legally preferred in order to ensure a minimum conifer stocking in all stands. The minimum conifer standard is in place to address forest health and longevity issues associated with deciduous species in our District and to address (modest) timber objectives. Due to the much lower target stocking for these standards, an M-value limits of 4 is proposed for these standards[3]. Some clumpiness is thus permitted, especially considering that deciduous trees are acceptable this standard.

Cedar and hemlock have been demoted in these standards in recognition of the higher fuel hazards and lower fire resilience associated with these species. While they are still listed as acceptable on mesic and moist sites, more fire resistant species such as Py, Fd, and Lw are clearly preferred over Cw and Hw.

The even-aged fire management stocking standards presented below have been developed for the most common BEC subzones and site series found at low- to mid-elevations in the South Selkirks. A similar approach could be applied in other subzones and site series.

Rationale:

Broadleaf species are included as they are generally less flammable than other coniferous species and as a result may reduce fire behaviour. TSS/MSS have all been lowered by 33-67% the various sites series from non-WUI District standards to reduce future fuel amounts by less trees and ideally wider spaced trees. MITD minimum has been set to 2.0 metres as this should be readily achievable with the much lower stocking and assist with increasing distance between well spaced crop trees and future fire spread. Ideally spacing should be targeted to a higher inter tree distance based on the target planting density if implementing artificial regeneration.

Approach used to modify current default District stocking standards to WUI stocking standards

1. **Start** with designated preferred and acceptable species in the DSE South Columbia Default Stocking Standards (April 2018)—all based on new BEC in LMH 70
2. **Demote** CW, HW, and SX on all site series listed
3. **Promote** PY from acceptable to preferred in the ICHxw-101, ICHdw1-101 and ICHmw2 & ICH mw4-103 and -104 (PY is already preferred in ICHdw1-103 and -104)

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[2] The partial cut (shaded fuel break) fire management standard should be preferentially used wherever pre-harvest stands have >=12 m^2/ha of acceptable leave trees.

[3] A low M-value could make achievement of these standards impracticable. MITD limits still apply however.

4. **Add** AT and EP to acceptable on site series where ecologically suitable. Add ACT to acceptable on -110 site series. Broadleaf species are included as they are generally less flammable than other coniferous species and as a result may reduce fire behaviour.
5. **Reduce target and minimum stocking** from 1200/ 700/ 600, 1000/ 500/ 400 and 600/ 400/ 400 to 400/ 250/ 200 sph
6. **Add new requirement** for maximum 800 sph coniferous stocking at FG (i.e., may require conifer spacing prior to FG declaration)
7. **Revise countable conifer methodology** to require counting all conifers >50cm for purposes of assessment of maximum conifer stocking.

Fire management even-aged stocking standards													
SSID #	**BGC**	**Site Series**	**Preferred species**	**Acceptable Species**	**Target WS/ ha**	**MIN pa**	**MIN p**	***MAX conifer at FG***	**M-value**	**Regen Delay**	**FG early**	**FG late**	**FG Min tree height (m)**
1062310	**ICHdw1**	**101**	Fd[58] Lw Py Pw[31]	Pl Cw Bg At Ep	400	250	200	*800*	4	7	12	20	Lw,Pl,At,Ep=2.0 Fd,Pw=1.4 Others=1.0
1062311		**102**	Fd Py	Lw Pl	400	250	200	*800*	4	7	12	20	Lw,Pl =1.4 Fd=1.0 Others=0.8
1062312		**103**	Fd[58] Lw Py	Pl Pw[31]	400	250	200	*800*	4	7	12	20	Lw,Pl=1.4 Fd,Pw=1.0 Others=0.8
1062313		**104**	Fd[58] Lw Py Pw[31]	Pl Bg At Ep	400	250	200	*800*	4	7	12	20	Lw,Pl,At,Ep=2.0 Fd,Pw=1.4 Others=1.0
1062314		**110**	Fd[1,58] Lw[1,201] Pw[31]	Cw Hw Bg At Act Ep	400	250	200	*800*	4	7	12	20	Lw,Act,At,Ep=2.0 Fd,Pw=1.4 Others=1.0
1062315	**ICHdm**	**101**	Fd[58] Lw Pw[31]	Pl Bg[14] Cw At Ep	400	250	200	*800*	4	7	12	20	Lw,Pl,At,Ep=2.0 Fd,Pw=1.4 Others=1.0
1062316		**102**	Fd[58] Lw Py	Pl At	400	250	200	*800*	4	7	12	20	Lw,Pl,At=2.0 Fd,Pw=1.4

													Others=1.0
1062317		**103**	Fd[58] Lw Py Pw[31]	Pl Bg[14] At Ep	400	250	200	*800*	4	7	12	20	Lw,Pl,At,Ep=2.0 Fd,Pw=1.4 Others=1.0
1062318		**110**	Fd[1,58] Lw[1,32,201] Pw[31]	Cw Bg[14] Sx At Act Ep	400	250	200	*800*	4	7	12	20	Lw,At,Act,Ep=2.0 Fd,Pw=1.4 Others=1.0
1062319	**ICHmw2**	**101**	Fd[58] Lw Pw[31]	Bg[14] Cw At Ep	400	250	200	*800*	4	7	12	20	Lw,At,Ep=2.0 Fd,Pw=1.4 Others=1.0
1062320		**102**	Fd Py[14,203]	Pl Lw	400	250	200	800	4	7	12	20	Lw,Pl=2.0 Fd=1.4 Others=1.0
1062321		**103**	Fd Lw Py[14,203]	Pl Pw[31] At	400	250	200	*800*	4	7	12	20	Lw,Pl,At=2.0 Fd,Pw=1.4 Others=1.0
1062322		**104**	Fd[58] Lw Pw[31] Py[14]	Pl Bg Cw At Ep	400	250	200	*800*	4	7	12	20	Lw,Pl,At,Ep=2.0 Fd,Pw=1.4 Others=1.0
1062323		**110**	Fd[1,58] Lw[1,201] Pw[31]	Cw Hw Sx At Act Ep	400	250	200	*800*	4	7	12	20	Lw,Act,At,Ep=2.0 Fd,Pw=1.4 Others=1.0
1062324	**ICHmw4**	**101**	Fd[58] Lw Pw[31]	Bg Cw At Ep	400	250	200	800	4	7	12	20	Lw,Pl,At,Ep=2.0 Fd,Pw=1.4 Others=1.0

1062325		**102**	Fd Py[14,203]	Pl Lw	400	250	200	800	4	7	12	20	Lw,Pl=1.4 Fd,Pw=1.0 Others=0.8
1062326		**103**	Fd Lw Py[14]	Pl Pw[31] At	400	250	200	800	4	7	12	20	Lw,Pl,At=2.0 Fd,Pw=1.4 Others=1.0
1062327		**104**	Fd[58] Lw Pw[31] Py[14]	Pl Bg Cw At Ep	400	250	200	800	4	7	12	20	Lw,Pl,At,Ep=2.0 Fd,Pw=1.4 Others=1.0
1062328		**110**	Fd[1,58] Lw[1,201] Pw[31]	Cw Hw Bg[14] At Act Ep	400	250	200	800	4	7	12	20	Lw,Pl,At,Ep,Act=2.0 Fd,Pw=1.4 Others=1.0
1062329	**ICHxw&xwa**	**101**	Fd[58] Lw Py[9,203]	Bg Pw[31] At Ep	400	250	200	*800*	4	7			Lw,Pl,At,Ep=2.0 Fd,Pw=1.4 Others=1.0
1062330		**102**	Fd Py		400	250	250	*800*	4	7			Fd=1.0 Others=0.8
1062331		**103**	Fd Py	Lw At Ep	400	250	200	*800*	4	7			Lw,Pl,At,Ep=2.0 Fd,Pw=1.0 Others=0.8
1062332		**104**	Fd Lw Py[203]	Bg Pl Pw[31] At Ep	400	250	200	*800*	4	7			Lw,Pl,At,Ep=2.0 Fd,Pw=1.4 Others=1.0
1062332		**110**	Fd[1,58] Lw	Cw[204] Bg At,	400	250	200	*800*	4				Lw,Pl,At,Ep,Act=2

			Pw[31]	Ep Act									.0 Fd,Pw=1.4 Others=1.0

Minimum Inter Tree distance is 2.0 metres for all sites

Crop tree over Brush Height % is 150% for all sites

Maximum Density countable conifer methodology -require counting all conifers >50cm for purposes of assessment of maximum conifer stocking.

Post maximum density is set at TSS+200 sph as Maximum and MSSpa as minimum

Prepared in part and submitted by:

Date: December 14, 2018

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Stewardship Forester Selkirk Resource District

Approved by:

Tara DeCourcy, District Manager
Selkirk Resource District

Date: 17 December 2018

Footnote #	Footnote
1	suitable on elevated microsites
9	suitable on warm aspects
14	suitable at lower elevations
31	must use of blister rust resistant stock. See BC Journal of Ecosystems and Management 10(1): 97-100 for supplementary information.
58	**South Area** - Fd limited to a max 50% of preferred and acceptable well-spaced stems in the IDFmw and all subzones of the ICH due to root rot. See Root Rot Handbook (2017, in press)
201	Maximum 50% of preferred and acceptable well-spaced trees
203	Recommended on sites for climate change adaptation
204	Not recommended due to climate change concerns