

Merritt Predictive Ecosystem Mapping – Map Entities

Adapted from Biome Ecological Consultants Ltd. – Contract Report for NSIFS (July 24, 2002)

BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
IDFdk1, IDFdk1a	Steep warm aspect grassland	G	1	92	92,93	GR* unclassified grasslands	GD	Non-forested	Slope 3+ Aspect warm Slope pos crest-mid SMR X- SM Landform FGt Drainage rapid-well	Seladen Balssag Elymspi Koelmac	postprocess from GR (simply OR) on basis of slope and aspect GR with Slope class 3 or greater, warm and hot aspects	GR and Aspect = (warm or hot)
	Gentle slope or cool aspect grassland	G	2	91.93	93ys,91ys, 91ms,91,94,95, 93-MS	GR* unclassified grasslands	GM	Non-forested	Slope 2- Aspect NA or cool Slope pos mid-lv (various) SMR M (SX) Landform Mb Drainage m-w	Festcam >5% Lupine Anteumb Elymspi	postprocess from GR (simply OR) on basis of slope and aspect GR with Slope class 2 or less or if slope 3 or more aspect cool or cold	GR and Aspect = (neutral, cold, cool)
	Talus	T	3	N/a	71	BT* Brushy Talus	TA	Non-forested	Slope 4+ Aspect warm Slope pos md,up SMR vx-x Landform Cb Drainage x-r	>5% junicom, essentially non-vegetated	Brushy talus was meant to describe alder dominated mesic to subhygric sites not non-forested rapidly drained talus – need to develop new kt - kt attributes Terrain-Cb, nonforested FC – NCBR or R, steep slope	BT or ((Npdesc = R) and (Sm=C))
	Rock outcrop	R	4	N/a	02	None	JP	<10% Fd	Slope 3+ vari. Aspect warm Slope pos cr-up SMR vx-x Landform R, Cv/R, Mv/R Drainage x-r	Heuccyl Junicom Seladen Pensfru Arctuva	Not recognized, need to develop kt, KT attributes Terrain – veneers/R, R, NPDESC - R	Npdesc=R (after ME3 removed) (<> BT and SM <> C)

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IDFdk1, IDFdk1a	FdPy bunchgrass	F	5	02	03,04	DW*	FB	<30% CC FD, Py	Slope 3+ vari. Aspect warm Slope pos up-md SMR x-sm Landform various Drainage m-r	Pinupon, >10 Elymspi spirbet Amelaln Koelmac Arctuva		DW and (Sp1 <> At)
	Fd juniper-pinegrass	F	6	03	05	DJ*	FJ	Fd(PI)	Slope 3+ vari. Aspect warm Slope pos md-up SMR sm (sx) Landform various Drainage w	Spirbet Shepcan Arctuva >20% Calarub	Very widespread unit, may be difficult to split from 01/04 basis of warm aspect and lack of PI (PI only present in 01 44% of time), kt weights 6-15% canopy closure too heavily	DJ and (Sp1 <> At)
	Mesic forest	F	7	04,01	06,01,07	DY,LP*	ZA	FdPI, PIFd	Slope 2- vari. Aspect n/a or cool Slope pos md SMR m Landform Mb Drainage m-w	Spirbet Shepcan >20% Calarub goodobl linnbor Pleusch		(DY or LP) and (Sp1 <> At)
	SxFd gooseberry-feathermoss	F	8	05	08	SG	SG	SxFd(PI)	Slope 2- vari. Aspect na Slope pos toe-llw SMR shg Landform Mb,Fb Drainage i	Ribelac Loniinv Calarub Galitri Osmorhi Orthsec >5%linnbor corncan pleusch Brachyt	Relatively common unit	SG

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IDFdk1, IDFdk1a	Sxw Horsetail	F	9	06	09	SH	SH	Sx	Slope 1 Aspect n/a Slope pos lv,dp,gu SMR hg Landform Fb,Ob Drainage i	Ribelac Galitri >20% equiarv	Relatively rare	SH
	Shrub wetlands	W	10	07	10,31	SW	WE	<10% Sxw	Slope 1 Aspect na Slope pos dp, lv SMR hg, shd Landform Ob Drainage vp	Carex spp. Aulapal Salix spp		SW
	Herb wetlands	W	11	N/A	40-49	HW	GW	Non-forested	Slope 1 Aspect na Slope pos lv SMR shd Landform Ob Drainage vp	<10% shrubs		HW
IDFdk1, IDFdk1a	Steep, dry Aspen	A	12	02	22	DW *	AB	Non-forested Scrub aspen	Slope 3 Aspect warm Slope pos md SMR sm Landform variable? Drainage m	Elymspi Koelmac Poasan	Rare Post-processed from map entity 5 (map code DW) FdPy bunchgrass, with At leading	DW and (Sp1 = At)
	Other Aspen types	A	13	03 04 01	21-ys, 21 23 24 25	DJ DY LP*	AK	At open to closed canopy	Slope var Aspect not warm Slope pos var SMR var Landform var Drainage var	Poa	Post processed from circum-mesic map entities with At leading, map codes DJ, DY, LP	(DJ or DY or LP) and (Sp1 = At)

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IDFdk2	Talus	T	14	N/a	71	BT *	TA	Non-forested	Slope 4+ Aspect warm Slope pos md SMR vx (sx) Landform Cb Drainage x-r	Junicom calarub	Brushy talus was meant to describe alder dominated mesic to subhygric sites not non-forested rapidly drained talus – need to develop new kt, kt attributes: Terrain-Cb, nonforested FC – NCBR or R, steep slope	BT or ((Npdesc = R) and (Sm=C))
	Rock outcrop	R	15	N/a	02	none	JP	Non-forested <10% Fd	Slope 2+ var Aspect warm Slope pos cr SMR vx x Landform R, Cv/R, Dv/R Drainage r-x	Junicom Amelaln Pensfru Arctuva Elymspi	Not recognized, need to develop kt, kt attributes: Terrain – veneers/R, R, NPDESC - R	Npdesc=R (after ME14 removed) (<=> BT and SM <=> C)
IDFdk2	Grasslands	G	16	N/a	91MS, 91YS	GR	BF	Non-forested	Slope var Aspect var Slope pos md SMR sm,sx Landform var Drainage w	Elymspi Koelmac Festida Balssag Astrmis	rare	GR
	Dry forest	F	17	02,03	03,04	DW, DP*	ZC	Fd (Py,Pl)	Slope3+ var Aspect warm Slope pos md,up SMR sx Landform mb, C Drainage r-w	Spirbet Arctuva >10%calarub		DW or DP (after ME23 removed) (LSP <=> AT)
	Mesic forests	F	18	01,04	05,01,06,07,08	LP, DF*	ZD	Fd,Pl, Pl, Fd	Slope var Aspect var Slope pos md SMR m (sm,shg) Landform var Drainage w-m	>10% calarub, linnbor goodobl chimumb Pleusch	if 08 encountered in field will have to be careful assessing map entity	LP or DF (after ME24 removed) (LSP <=> AT)

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IDFdk2	Sxw, Fd subhygric forest	F	19	05	09,10,11	SD	ZG	Sx Fd	Slope 2- Aspect n/a Slope pos to,lv SMR shg hg Landform Fb Drainage i	Sympalb Ribelac Cornsto Galitri Brachyt		SD
	Hygric Forest	F	20	06,07	12, 13	SH, RT*	SW	Sxw Sxw(Fd)	Slope 1 Aspect n/a Slope pos to lv SMR hg shd Landform Fb (O) Drainage p-vp	Loniinv Cornsto Corncan Mitella >10% equiarv Plagiomnium		SH or RT (after ME25 removed) (LSP <-> AT)
	Shrub wetlands	W	21	08	31-34	SW	WE	Non-forest	Slope 1 Aspect na Slope pos dp, lv SMR hg, shd Landform Ob Drainage vp	Carex spp	Highly variable floristically	SW
	Herb wetland	W	22	N/A	41-43	HW	GW	Non-forested	Slope 1 Aspect na Slope pos lv SMR shd Landform Ob Drainage vp	Carexspp		HW

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IDFdk2	Aspen bunchgrass	A	23	02,03	21	DW, DP*	AB	Non-forest scrub aspen	Slope 4+ Aspect warm Slope pos var SMR sx Landform Drainage r	Arctuva Elymspi	If these are scrub then At will not appear in FC Rare. Post-process from map codes DW and DP– dry forest, with At leading	(DW or DP) and (Sp1 = At)
	Aspen pinegrass	A	24	01 04	22	LP, DF*	AP	At	Slope 3+ Aspect var Slope pos md SMR sx-m Landform M Drainage m-w	>15% pinegrass Fragvir	Post-process from map codes LP and DF - Mesic forest, with At leading	(LP or DF) and (Sp1 = At)
IDFdk2	Aspen Dogwood-waxberry	A	25	06 07	23	SH, RT*	AD	At	Slope 2- Aspect n/a Slope pos md,lw,to SMR shg-shd Landform Fb Drainage i	Sympalb >10% cornsto Galitri	Post-process from map codes SH and RT - Sxw, Fd subhygric forest, and hygic forest, both with At leading	(SH or RT) and (Sp1 = At)
MSdm2	Grassland	G	26		92,91	none		Non-forest	Slope 3+ Aspect var Slope pos md, cr, up SMR x-m Landform var Drainage r,w	Elymspi Geumtri Achimil	Need kt , Can use kt for GR units from other variants except that JW kt weights OR as highly as this entity, OR will always be assigned to rock outcrop unless additional features added to GR kt e.g. D_1 weighted for w, ECOSOIL+D_1 – MDCSOIL+W=3	DROPPED Can't post process at this time.

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MSdm2	Talus	T	27	N/A	71	BT*	TA	Non-forested, scattered trees	Slope 3+ Aspect warm Slope pos var SMR vx-x Landform Cb Drainage x, r	Paximyr Junicom	Brushy talus was meant to describe alder dominated mesic to subhygric sites not non-forested rapidly drained talus – need to develop new kt, kt attributes: Terrain-Cb, nonforested FC – NCBR or R, steep slope	BT or ((Npdesc = R) and (Sm=C)) or ((LG or LJ) and LSP = “”)
	Rock outcrops	R	28	02	02,03	JW	ZE	Non-forest	Slope var Aspect warm, n/a Slope pos up, cr SMR vx-x Landform Cv/R, R Drainage x, r	Paximyr Spirbet Pseumen	problem – relatively common unit – kt weights OR much higher than R, since using OR to delineate grasslands this kt will always score OR at least as high for this unit as for grassland, this may be preferable since rock outcrops are more common than grassland	JW
	Dry forest Fd leading	F	29	03,04	04	LJ LG*	ZF	FdPI open canopy	Slope 2+ Aspect var Slope pos md,up SMR sx-m Landform var Drainage w-r	Paximyr Spirbet >10% calarub Vaccsco	May be difficult to distinguish environmentally from mesic. Post-process: LJ with Fd leading remains this entity, with PI leading goes to map entity 30, map code LG, – PI-grouseberry-pinegrass. With Sx or BI leading, goes to map entity 31 – Mesic forest, map code SF	(LJ or LG or SF) and (Sp1 = Fd or PY)

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MSdm2	Pl-grouseberry-pinegrass	F	30	04,03	05	LG LJ*	ZG	PIFd open canopy	Slope 2+ Aspect var Slope pos md,up SMR sx-m Landform var Drainage w-	Paximyr Spirbet >10% calarub Vaccsco	Post-process this group with Fd leading goes to map entity 29 - Dry forest Fd leading map code LJ. With PI leading remains here With Sx or BI leading, goes to map entity 31 – Mesic forest, map code SF	(LJ or LG) and (Sp1 = PI)
	Mesic Forest	F	31	01,03, 04	06, 01, 07	SF LJ LG*	ZH	PI PISxBI	Slope 3- Aspect var Slope pos md,lv SMR m Landform Mb Drainage m,w	Paximyr Loniuta Abielas Vaccmem Vaccsco Linnbor Orthsec Pleusch		(SF and LSP <> Fd and LSP <> PY) or ((LJ or LG) and (Sp1 = Sx or BI)) (after ME36 removed) and LSP <> AT
	Sub-hygric forest	F	32	05, 06	08, 09, 10, 11, 12	SG, SD*	SM	SxBI SxBIPi PISxBI	Slope 2- Aspect na Slope pos md, lw, to SMR shg Landform Mb, Fb Drainage m-i	Vaccmem Ribelac Loniuta Loniinv Orthsec Rubuped Corncan Tiaruni Streamp Pleushc Brachyt		SG or SD

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MSdm2	Sx-horsetail-leafy moss	F	33	07	13	SH	SH	Sx(BIPI)	Slope 0 Aspect na Slope pos lv, lw SMR hg Landform Fb, O Drainage p-vp	Ribelac Loniinv Mitella sp Galitri >10% equiarv brachyt rhizmag		SH
	Shrub-Wetland	W	34	N/A	14, 15, 31, 33, 34	SW	WE	<10% trees Sx	Slope 0 Aspect na Slope pos lv, dp SMR shd Landform Fb, O Drainage p-vp	Equiarv Aster sp Senetri Calacan		SW
	Herb-Wetland	W	35	N/A	41-44, 32	HW	GW	Non-forested	Slope 0 Aspect na Slope pos lv, dp SMR shd Landform O Drainage vp	sphagnum		HW
	Aspen-pinegrass	A	36	03,04, 01	21	LJ, LG, SF*	AP	At	Slope 3+ Aspect warm Slope pos mid SMR sm Landform Mb Drainage w	Elymus sp Calarub Fragves astecon	Based on 1 plot Post-process from map entity 29, Dry Forest, map code LJ, map entity 30, PI- grouseberry-pinegrass, map code LG and map entity 31, Mesic Forest, map code SF with At leading	(LJ or LG or SF) and (Sp1 = At)

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MSxk	Grasslands	G	37	03,04	91-93	WJ,VP*	GL	Non-forested	Slope 3+ Aspect warm Slope pos up, cr SMR vx-sx Landform var Drainage r-w	Elymspi Koelmac		WJ or VP
MSxk	Talus	T	38	N/A	71	BT*	TA	<10% trees AtPI	Slope 4+ Aspect warm Slope pos var SMR vx Landform Cb Drainage x	Junicom Pensfru	Brushy talus was meant to describe alder dominated mesic to subhygric sites not non-forested rapidly drained talus – need to develop new kt, kt attributes: Terrain-Cb, nonforested FC – NCBR or R, steep slope	BT or ((Npdesc = R) and (Sm=C))
	Rock outcrop	R	39	N/A	02	none	JP	<10% trees PI Fd	Slope var Aspect warm Slope pos up, cr SMR vx-x Landform R, Cv/R Drainage x-r	Junicom Arctuva Cladonia sp Polypil peltruf	Need new kt, kt attributes high weighting for NPDESC = R, Se=X, ecosoil=nosoil	Npdesc=R (after ME38 removed) (<> BT and SM <> C)
	Pl-Juniper-Grouseberry	F	40	02	03	DJ	LJ	<25% trees Open PI	Slope 2+ Aspect warm Slope pos cr SMR vx-sx Landform C, Mv/R Drainage r	Junicom Vaccsco Cladonia spp		DJ

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MSxk	Fd-PI-pinegrass-arnica	F	41	05	04,01,06,07	DA,LL,L F, ST	ZF	Fd PI	Slope 3+ Aspect warm Slope pos md, up SMR sx-sm Landform Mb, Cv/R Drainage r-w	Shepcan Arctuva >15% calarub fragvir pleusch peltaph	If DA and Fd leading leave in this unit	(DA or LL or LF or ST) and (LSP = Fd or LSP = LW)
	Sub-xeric non-Fd stands	F	42	05	05, 06	DA*	LG	PI	Slope var Aspect var Slope pos md SMR sx-m Landform Mb, Cb Drainage w	Paximy Calarub (variable, can be dominant) >10% vaccsco lupiarc linnbor pleusch peltaph	Post-processed from map entity 41 – Fd-PI-pinegrass-arnica, map code DA without Fd leading	DA (after ME41, 48 removed) (LSP <> Fd or LSP <> LW or LSP <> AT)
	Mesic Forest	F	43	01, 06, 07	01, 07, 08, 09	LL, LF, ST*	ZG	PI(Sx)	Slope 2+ Aspect cool Slope pos md SMR sm-m Landform Mb Drainage m	Loniuta Calarub > 5% vaccsco arnica sp linnbor orthsec corncan >20% pleusch	If Fd leading assign to map entity 41 Fd-PI-pinegrass-arnica, map code DA	(LL or LF or ST) (after ME41, 43 removed) (LSP <> Fd or LSP <> LW or LSP <> AT)
	Sub-hygic Forest	F	44	08	10, 11	SG	SB	SxPI(BI) PISx(BI)	Slope 2- Aspect na Slope pos to, lw SMR shg-hg Landform Fb, FG Drainage i	Vaccsco Arnica sp Linnbor Orthsec Rubuped Corncan Valesit Pleusch	Two components(Feb 2002 site units) are quite variable floristically	SG

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MSxk	Sx-horsetail-leafy moss	F	45	09	12	SH	SH	< 35% trees Sx	Slope 1 Aspect na Slope pos dp, lv, to SMR hg-shd Landform F, Ob Drainage p	Ribelac Loniinv Vaccsco Linnbor Corncan Mitella sp >10% equiarv ptilcri rhizmag aulapal		SH
	Shrub Wetlands	W	46	N/A	13, 31, 32	SW	WE	< 10% trees	Slope 1 Aspect na Slope pos lv, dp SMR hg-shd Landform Ob Drainage v	Salix sp Carex sp Aulapal		SW
	Herb Wetland	W	47	N/A	41	HW	GW	Non-forested	Slope 0 Aspect na Slope pos dp, lv SMR shd Landform O Drainage v	Carex sp	Variable vegetation	HW
	Aspen-pinegrass	A	48	05,06,01,07	21	DA, LF,LL, ST*	AP	< 10% trees At	Slope 4+ Aspect warm Slope pos ? SMR sx-sm Landform var Drainage w	Arctuva > 10% calarub	Map codes DA, LF,LL, ST, map entities 41, 43, Fd PI pinegrass-arnica, or mesic forest, with At leading	(DA or LF or LL or ST) and (Sp1 = At)

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ESSFxc	Talus	T	49	N/A	71	BT*	TA	Non-forested	Slope 3+ Aspect var Slope pos var SMR vx Landform Cb Drainage x		More or less Non-vegetated, Brushy talus was meant to describe alder dominated mesic to subhygric sites not non-forested rapidly drained talus – need to develop new kt, kt attributes: Terrain-Cb, nonforested FC – NCBR or R, steep slope	BT or ((Npdesc = R) and (Sm=C))
ESSFxc	PI-Juniper-lupine	R	50	02	02	LJ*	JL	< 10% PI	Slope var Aspect var Slope pos cr, up SMR vx-x Landform Cv/R, Mv/R, R Drainage x	Junicom Abielas Lupiar > 5% vaccsco	May be difficult to distinguish from other rock outcrops, 10 of 17 plots had <10 % tree cover LJ with <10% tree cover or NPDESC=R or OR goes to rock outcrop map entity 51 otherwise = LJ	LJ (after ME 51 removed) and (C > 10%)
	Non-treed Rock Outcrop	R	51	06	03	LJ*	JP	Non-forested	Slope 3+ Aspect warm Slope pos cr, up SMR vx-sx Landform C Drainage r-x	Junicom Seladen Sedulan Arenca Saxibro Trisspi Achimil polypil	Floristically poorly differentiated from map entity 50 LJ with <10% tree cover or NPDESC=R or OR goes to rock outcrop map entity 51	LJ and (C <= 10%)
	Warm aspect, shallow soil Grasslands	G	52	03	91, 92	WP	BB	Non-forested	Slope var Aspect warm Slope pos up, cr SMR x-sx Landform Mv/R, C Drainage r, x	10% elumspi koelmac artitri junicom	Distinction in kb for two grassland relies heavily on drainage and soil depth, no use of elevation, see following comment, uncommon feature so may not be very important	WP

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ESSFxc	Cool aspect, deep soil Grasslands	G	53	04	93-96	SP	JY	Non-forested	Slope 2+ Aspect var Slope pos md SMR sx-m Landform Mb Drainage w	Achimil Fragvir	Vegetation quite variable between units, these units are generally higher elevation >1900m than warm aspect (previous map entity) especially the oatgrass unit	SP
	PI-pinegrass-grouseberry	F	54 (do not recognize)		04	none		PI	Slope 3+ Aspect warm Slope pos md, up SMR sx, sm Landform Mb Drainage w	Junicom > 10% calarub lupiarc > 10% vaccsco arnilat	There is a note on the table regarding lumping with 05/01 as this is seen in Merritt area only rarely, was thought this unit was restricted elevationally - data from long tables indicates this unit is found at same mean elevation as rest of forested units	DROPPED
	Mesic Forest	F	55	05, 01	05-ms, 05, 01, 06, 07, 04	FC, FG*	PG	PI PISe BISe SeBI SeBIPI	Slope var Aspect var Slope pos md SMR sm, m Landform Mb Drainage w	Vaccmem > 20% vaccsco linnbor rubuped Dicranum sp > 5% pleusch		FC or FG
	Cool aspect Mesic Forest	F	56	06	08, 09	FR	BR	BISePI	Slope var Aspect cool Slope pos md SMR m Landform Mb Drainage w	Vaccmem > 15% rhodalb vaccsco arnilat Dicranum sp	Kb gives -5 for <10% slope, this occasionally occurs, so probably best if not weighted against flat slopes	FR

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ESSFxc	Sub-hygric Forest	F	57	07	10, 11	FF	BG	< 30% trees Se SeBI	Slope 2- Aspect na Slope pos md, to SMR shg-shd Landform var Drainage i-p	Loniinv Vaccsco Arnilat Veravir Valesit Mitella sp Trolalb Brachyt Aulapal		FF
	Bl-horsetail-glow moss	F	58	08	12	FH	SH	< 30% trees Se	Slope 1 Aspect na Slope pos lv, dp SMR hg-shd Landform Ov Drainage p-v	Loniinv Valesit Mitella sp Streamp Trolalb > 20% horsetail Senetri Brachyt Aulapal		FH
	Shrub Wetlands	W	59	10	13, 31-33	SW	WE	Non-forested	Slope 1 Aspect na Slope pos dp, lv SMR hg-shd Landform Ob, F Drainagep-v	Salix spp Senetri Calacan sphagnum		SW
	Herb Wetland	W	60	09	41-44	HW	GW	Non-forested	Slope 1 Aspect na Slope pos dp, lv SMR shd Landform Ob Drainage p-v	Carex spp sphagnum		HW

Merritt Predictive Ecosystem Mapping – Map Entities

Adapted from Biome Ecological Consultants Ltd. – Contract Report for NSIFS (July 24, 2002)

BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
ESSFxc	Ds-herb-grass		SH	N/A		DH	DH				This unit is alder thickets, not included in BEC guide or summary table, uses Alpine, alpine forest and meadow FC NPDESC heavily. Is it to be mapped?	DH
	Open Balsam forest		OB	N/A		OB	ZO				Dry open transitional to parkland forest, relies heavily on alpine forest, is this to be mapped?	OB
	Alpine heath		AH	N/A			AH				Meadows on thin soils, relies heavily on alpine and meadow in NPDESC, transition to parkland, no elevation rules, is this to be mapped?	AH
ESSFdc2	Rock outcrop	R	61	02	02, 03	JP	ZP	Non-forested – very open forest (< 20% trees)	Slope var Aspect var Slope pos cr, up SMR vx-x Landform R, Cv/R Drainage x	Junicom	Units are variable WRT vegetation, kt logic flawed for aspect cool aspects less likely than warm or cold ¹ , slope class 1 rated 0 while class 5 rated 4, class one is twice as common in data	JP

¹ this only holds if k = cool as in BEC nomenclature, in input data report k=cold, if this correct then comment does not stand.

Merritt Predictive Ecosystem Mapping – Map Entities

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
ESSFdc2	Warm aspect, dry forest	F	62	03, 04	04, 05	LF	PG	PI PI(BI)	Slope 2+ Aspect warm Slope pos up, md SMR x-sm Landform Mb Drainage w	Paximyr Vaccmem Vaccsco Lupiarc Arnilat	Absence of Se separates this from moister units (recognized in kt), logic flawed for aspect - cool aspects less likely than warm or cold in S+As ² , 1990 04 and 05 were lumped in Oikos knowledge tables (FF), this unit best described by only LF (03) table on basis of stand and environment of new lump	LF
	Mesic Forest	F	63	05, 01	06, 01	FF, FR*	BG	SeBIPI	Slope var Aspect var Slope pos md SMR m Landform Mb Drainage w-m	Vaccmem Rhodalb Vaccsco Arnilat Orthsec Rubuped Valesit Dicranum sp		FF or FR
	Sub-hygic Forest	F	64	06, 07, 08	07, 08, 10	FO, FV, FT*	BB	SeBI(PI)	Slope 2- Aspect na Slope pos md SMR shg-hg Landform Mb Drainage m-i	Vaccmem Rhodalb Ribelac Loniinv Vaccsco Arnilat Orthsec Rubuped > 5% valesit veravir tiaruni thalocc brachyt	The BI-trapper's tea is quite different floristically, but impossible to split out,	(FO or FV or FT) (after ME65 and ME66 removed) 64 is the default, this must be run with 65 and 66 when post processing.

Merritt Predictive Ecosystem Mapping – Map Entities

Adapted from Biome Ecological Consultants Ltd. – Contract Report for NSIFS (July 24, 2002)

BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
ESSFdc2	Se-Horsetail	F	65	06 07 08	12	FO FV FT*	ZQ	Se(BI)	Slope 1 Aspect na Slope pos to, lw, lv SMR hg Landform O, Fv/Mb Drainage p	Ribelac Loniinv Rubuped Valesit Tiaruni Mitella sp Streamp Senetri > 15% equiarv	FO, FV, FT with slope=1, adjacent to wetlands, creeks, lake (CB may need to be revised to pull in lakes and wetlands) and Sm=O; if crown closure >10% then this unit (65) if <10% then SW	(FO or FV or FT) and (Slope<=10%) and (Sm=O) and (CC >10%)
	Shrub Wetland	W	66	06 07 08	31-34, 13	SW FO FV FT	WE	Non-forested	Slope 1 Aspect na Slope pos dp, to SMR hg-shd Landform O Drainage p-v	Salix sp Aster spp Senetri Equiarv Calacan Carex spp Aulapal	13 unit (Se-bluejoint) has < 10% trees, should likely go to the shrub wetland, hence post process rule	(SW) or ((FO or FV or FT) and (Slope<=10%) and (Sm=O) and (CC <= 10%))
	Herb Wetland	W	67	09	41-44	HW	GW	Non-forested	Slope 1 Aspect na Slope pos dp SMR hg-shd Landform O Drainage p-v	Carex spp Sphagnum Aulapal	Veg variable between units	HW

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
ESSFdc2	Alder	?	68	N/A	09	DH BT*	AS	Non-forested	Slope 3+ Aspect warm Slope pos md SMR sm Landform Mb Drainage w	> 40% Alnuvir	Based on one plot Rare unit, Ds – herb – grass Oikos alder thicket unit (DH) kt does not use M+NPDESC+S=M+NP BR+steep slopes, which might be useful, kt concentrates on alpine, alpine forest and meadow in FC NPDESC, however BT (brushy talus) does capture these steep morainal sites, might be best to use BT	(DH or BT)
	Meadow	?	69	N/A	11	AH GR	VM	Non-forested	Slope 2- Aspect na Slope pos to SMR m-shg Landform var Drainage m-i	> 20% valesit aster sp potedis trolalb senetri caltlep > 20% bryuwei	Rare unit, alpine heath describes meadows but in transition to parkland, two plots in summary table were from low elevation, might use GR kt which uses only OR	(AH or GR)
	Open balsam forest		OB	N/A		OB	ZS				Do you wish to map this unit, not part of agreed to map entities, need agreement from Dennis Lloyd	OB

Merritt Predictive Ecosystem Mapping – Map Entities

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
PPxh2, PPxh2a	Talus	T	70	N/A	71, 72	BT*	TA	Non-forested	Slope 4+ Aspect var Slope pos var SMR vx-x Landform Cb Drainage x-r	Amelaln Elymspi	Units quite variable WRT veg because two components are cool and warm aspect Brushy talus was meant to describe alder dominated mesic to subhygric sites not non-forested rapidly drained talus – need to develop new kt, kt attributes: Terrain-Cb, nonforested FC – NCBR or R, steep slope, drainage=x,r	BT or ((Npdesc = R) and (Sm=C))
	Rock outcrop	R	71	02	02	DS	DS	Non-forested	Slope var Aspect warm Slope pos cr SMR vx Landform Cv/R, Mv/R, R Drainage x-r	Ericnau Amelaln > 5% seladen elymspi cladonia spp		DS
	Selaginella		71a	02	92	DS		Non-forested	Slope var Aspect warm Slope pos cr SMR vx Landform Cv/R, Mv/R, R Drainage x-r	Seladens Elymspi	Both this unit and the previous are rock outcrops. Dennis Lloyd indicates that this unit is to be mapped as adjacent to grassland (SF), while previous unit is adjacent to forested units. DS adjacent to SF	DROPPED (can't identify adjacency without creating new linework)

Merritt Predictive Ecosystem Mapping – Map Entities

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
PPxh2, PPxh2a	Grassland	G	72	05	93-ys, 93, 91, 94, 95, 95-ys	SF	ZF	Non-forested	Slope var Aspect var Slope pos var SMR sx-m Landform var Drainage w	Ericnau Antenaria spp Artefri > 5% elymspi achimil poasec	95 and 95-ys were split out separate, but based on environmental tables they are not differentiated Dennis Lloyd agreed to lump	SF
	Sub-xeric to sub-mesic forest	F	73	03	03, 04, 05-ys, 05, 05-ms	PW	ZP	Generally < 30% trees Py Py(Fd)	Slope var Aspect var Slope pos md SMR sx-sm Landform FG, C Drainage w-r	Ericnau Amelaln Elymspi	May be difficult to pull out from 04/01 group, Dennis Lloyd agrees may have to accept that these can not be distinguished, crown closure too high for this unit in kt.	PW
	Mesic forest	F	74	04, 01	06, 01-ys, 01	PS PF*	ZT	PyFd FdPy	Slope var Aspect var Slope pos md, lw SMR m Landform Mb Drainage w	> 10% elymspi achimil festcam	Dense crown closure weighted too highly in kts, particularly for PF Post-process cool and cold aspects with Fd leading, as map entity 75 - Fd-pinegrass-feathermoss	(PS or PF) (after ME75 and ME79 removed) ((aspect as = k or c) and (LSP <> Fd or LSP <> Py) or (aspect as = h w n)) and LSP <> AT

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
PPxh2, PPxh2a	Fd-pinegrass-feathermoss	F	75	04 01	07	PS PF*	ZU	Fd	Slope 2+ Aspect cool Slope pos md SMR shg- m Landform F, FG Drainage m	Sympalb Amelaln Shepcan Calarub Tortrur Peltcan Rhyttri Peltabt Pleusch Hylospl	Post-process PS, PF with cool aspects and Fd leading	(PS or PF) and (Aspect = cool or cold) and (LSP = Fd or LSP = PY)
	FdPy – snowberry - saskatoon		75a	06	08	SS*	ZV	Fd, Py	From 1990 ecoguide Slope=2- Slope position lw, to SMR shg Landform Fb Drainage m,i	Symbalb Calarub Amelaln	Not identified in summary table but discussion with Dennis Lloyd suggests that this unit ought to be mapped	SS (after ME80 removed) and LSP <> AT)
	Act-water birch	F	76	07	09	CW*	ZW	Act ActFd	Slope 2- Aspect na Slope pos to, dp, gu SMR shg-hg Landform Fb Drainage i	Sympalb Amelaln > 5% Acergla > 10% Cornsto		CW (after ME77 removed) 76 is the default, this must be run with 77 and 81 when post processing
	Shrubby wetlands	W	77	07	08, 09-ys	CW SW*	WE	Non-forested	Slope 1 Aspect na Slope pos to, lv SMR shg-hg Landform Fb Drainage i-p	Sympalb Betuocc	CW with less than 10% trees = this unit	(SW) or (CW and (CC <=10%)) (after ME81 removed) and LSP <> AT

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
PPxh2, PPxh2a	Herb wetlands	W	78	N/A	41-48	HW	GW	Non-forested	Slope 1 Aspect na Slope pos dp, lv SMR hg-shd Landform O, Fb Drainage p-v		Veg variable between units	HW
	Aspen-fescue	A	79	01 04	21	PS PF*	ZY	? Scrub At	Slope 2+ Aspect cool Slope pos md SMR sm Landform ? Drainage w	Balssag Elymspi > 20% Festcam	Based on one plot Post-process mesic forest with At PS and PF with At leading	(PS or PF) and (Sp1 = At)
	At-snowberry-rose	A	80	06	22	SS*	ZZ	At	Slope 2+ Aspect cool Slope pos gu, md SMR shg Landform var Drainage m	Sympalb Shepcan Spirbet Rosanut > 5% Calarub Astecon Dicrsc	SS + At leading	SS and (Sp1 = At)
	At-horsetail	A	81	07	23	CW*	YZ	? Scrub At	Slope 1 Aspect na Slope pos lv SMR shd Landform Fb Drainage p	Rosa spp Equiarv Carex spp Drepanocladus sp	Based on one plot CW + aspen leading	CW and (Sp1 = At)

Merritt Predictive Ecosystem Mapping – Map Entities

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
IDFxh2, IDFxh2a	Talus	T	82	N/A	71	BT*	TA	Non-forested (scattered Fd)	Slope 4+ Aspect warm Slope pos var SMR x-vx Landform Cb Drainage x	Amelaln Acergla Elymspi Tortrur	Brushy talus was meant to describe alder dominated mesic to subhygric sites not non-forested rapidly drained talus – need to develop new kt, kt attributes: Terrain-Cb, nonforested FC – NCBR or R, steep slope	BT or ((Npdsc = R) and (Sm=C))
	Rock Outcrop	R	83	02	02	WR	WR	Non-forested	Slope 2+ Aspect var Slope pos cr-md SMR vx-sx Landform Cv, R, Dx Drainage x-r	> 10% seladen Elymspi Tortrur	Kt suggests that crown closure can be as high as 45%, should never be >10%	WR
	Steep, south aspect Grasslands	G	84	92	93-ys, 93	GR*	BS	Non-forested	Slope 2+ Aspect warm Slope pos md-up SMR x-sm Landform var Drainage r	> 5% Elymspi Eriglin Artefri Poasec Koelmac Achimil	GR+warm or hot aspect, slope class 2 or greater,	GR and (Aspect = (warm, hot))
	Gentle, moist Grasslands	G	85	91, 93	91-ys, 91, 91-ms, 94-ys, 94	GR*	FB	Non-forested	Slope 3- Aspect var Slope pos md SMR sm-m Landform Mb Drainage w	Lupiser Festcam Koelmac	GR+cool or cold aspect or slope less than class 3	GR and (Aspect = (cool, cold, neutral))

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
IDFxh2, IDFxh2a	Warm dry Fd Py forest	F	86	03, 04	03, 04	PB DW*	PS	< 25% trees, Open FdPy	Slope 3+ Aspect warm Slope pos md-up SMR x-sm Landform var Drainage r-w	Amelain > 10 % Elymspi Balssag Achimid	PB kt should weight open canopy CCGRP 1 higher, classes 3 and 4 not at all	(PB or DW) (after ME90 removed) and LSP <> AT
	Mesic Forest	F	87	05, 01	05, 06, 01	PP DP*	FP	Fd	Slope 2+ Aspect var Slope pos var SMR sm-m Landform var Drainage w	Spirbet Calarub Rhyttri Peltaph Pleusch	New 05 floristically quite different , DP weights very rapidly drained (X) as high as well drained - wrong	(PP or DP) (after ME91 removed) and LSP <> AT
	Fd-feathermoss	F	88	06	07	DF	FF	Fd	Slope 2+ Aspect cool Slope pos md-lw SMR sm-shg Landform var Drainage w	Sympalb Spirbet Calarub Rhyttri > 20% pleusch Hylospl		DF
	Cw-Fd-Dogwood	F	89	07	08	RD*	FD	< 25% trees FdSx	Slope 3- Aspect cool Slope pos md, to, lv SMR shg-hg Landform var Drainage m-i	Mahoaqu > 5% sympalb Acergla > 5% betupap Cornsto Ribelac Linnbor Aralnud Osmorhiza spp Smilrac Galitri	High crown closure weighted too high this is an open forest	RD (after ME92 removed) and LSP <> AT also LSP <> AT and <> E and <> AC and = SH

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
IDFxh2, IDFxh2a	At-juniper-kinnikinnick	A	90	03 04	21	PB, DW*	AJ	Scrub At	Slope var Aspect warm Slope pos var SMR m Landform ? Drainage w	Junisco Sympalb Junicom Shepcan Rosaaci Arctuva Lithrud Viciame Poapre	Based on one plot Post-processed from map entity 86, Warm dry Fd Py forest, PB, DW with At leading	(PB or DW) and (Sp1 = At)
	At-fescue-pinegrass	A	91	01 05	22	PP, DP*	AP	Scrub At	Slope 2,3 Aspect cool Slope pos md, lw SMR sm-shg Landform Mb Drainage w	Sympalb Amelaln Rosaaci Elymspi Stipric Festcam Calarub	Post-processed from map entity 87, Mesic forest, PP, DP with At leading	(PP or DP) and (Sp1 = At)
	Sub-hygric At stands	A	92	07	23-25	RD*	YY	At AtAct	Slope 1 Aspect na Slope pos lw, lv SMR shg Landform F Drainage i	Amelaln Lathoch Poapre Osmorhiza spp Violcan	Post-processe from map entity 89, Cw-Fd-Dogwood, RD with At leading	RD and (Sp1 = At) Also LSP = AT or = E or = AC and = SH
	Shrubby wetlands	W	93	N/A	31-33	SW	WE	Non-forested	Slope 1 Aspect na Slope pos lv SMR shg-hg Landform var Drainage i	Poapra	Veg variable	SW

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
IDFxh2, IDFxh2a	Herb wetlands	W	94	N/A	41-47	HW	GW	Non-forested	Slope 1 Aspect na Slope pos dp, lv SMR shg-shd Landform Fb, FGb, O Drainage p-v		Veg variable	HW
	Sxw - horsetail			08		SH					No longer recognized, do not map	Leave alone for noew ? where to assign ?
IDFxh1, IDFxh1a	Talus	T	95	N/A	71	BT*	TA	Non-forested, Scattered Fd	Slope 4+ Aspect var Slope pos var SMR vx-sx Landform Cb Drainage x	Sympalb Amelaln Phillew elymspi	Brushy talus was meant to describe alder dominated mesic to subhygric sites not non-forested rapidly drained talus – need to develop new kt, kt attributes: Terrain-Cb, nonforested FC – NCBR or R, steep slope	BT or ((Npdesc = R) and (Sm=C))
	Rock outcrop	R	96	N/A	02, 92	none	YX	Non-forested	Slope 2+ Aspect var Slope pos up-cr SMR vx-sx Landform Cv, R Drainage x	Amelaln Elymspi Seladen	Not recognized, need to develop kt, kt attributes: Terrain – veneers/R, R, NPDESC - R	Npdesc=R (after ME95 removed)

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IDFxh1, IDFxh1a	Steep, Warm aspect Grasslands	G	97	93	93-ys, 93, 94-ys, 94	GR*	BB	Non-forested	Slope 3+ Aspect warm Slope pos var SMR sx-m Landform var Drainage w	Elymspi Balssag Zigaven Bromtec	GR + warm and hot aspects + slope class 3+, Se=v	GR and (Aspect = (warm, hot))
	Gentle slope, Warm aspect Grasslands	G	98	91, 95, 96	91-ys, 91, 95-ys, 95, 96, 96-ms, 97,	GR*	BF	Non-forested	Slope 3- Aspect var Slope pos var SMR sx-m Landform Mb, var Drainage w	Bromtec Elymspi Eriohr Stipocc Cynooff Lupiser Festida Koelmac Poapre	Will be very difficult to distinguish this from previous map entity (97)steep warm aspect grasslands. A couple of warm steep units are found here GR+ all aspect + slope class 3 or less, Se=b	GR (after ME97 removed) aspect = h w n
	Sub-xeric to sub-mesic open Fd Py stands	F	99	02, 03	03, 04	PB DW*	FB	< 25% trees FdPy PyFd	Slope 2+ Aspect var Slope pos md-up SMR sx-sm Landform var Drainage w	Amelaln > 5% Elymspi Balssag Achimil	DW ought not weight CCGRP3 (up to 65% crown closure) as a 2	(PB or DW)
	Sub-mesic to mesic forest	F	100	04 05 01	05, 06, 01	SP DP PF*	FP	FdPy PyFd	Slope 2+ Aspect var Slope pos md-up SMR sm-m Landform var Drainage w	Spirbet Amelaln Sympalb > 10 % Calarub	The only thing to pull out previous unit is greater crown closure, old 04 unit no longer recognized don't use SP kt.	(SP or DP or PF) (after ME104 removed) and LSP <> AT

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IDFxh1, IDFxh1a	Mesic to sub-hygic forest	F	101	06, 07	07, 08, 09-ys	DD*	FF	Fd FdPy	Slope 2+ Aspect cool (var) Slope pos md-lw SMR m-shg Landform Mb FGt Drainage m	Mahoaqu Sympalb Amelaln Spirbet Calarub Brachyt		DD (after ME105 removed) and LSP <> AT
	Sub-hygic to hygic forest	F	102	08	09, 09-ms	SD*	SD	Fd FdEp ActFdEp	Slope 1 Aspect na Slope pos lw, lv, to, dp SMR shg-hg Landform F Drainage i	Mahoaqu Sympalb Acergla Cornsto		SD (after ME103 and ME105 removed) and LSP <> SX and LSP <> AT and <> presence of CW (cw < 1)
	Sx-horsetail	F	103	08	10	SD*	SH	SxCwBI Sx	Slope 1 Aspect na Slope pos dp, lv SMR shg Landform Fb, Ob Drainage i	Acergla Ribehud Cornsto Orthsec Osmorhiza spp Smilste > 5% Equiarv Brachyt	Kt could benefit by inclusion of presence of Spruce Post-process from map entity 102, Sub-hygic to hygic forest, SD with Sx leading and/or Cw present; or Forested plus Organic	(SD and (Sp1 = Sx) or (Sp1-Sp6 = Cw)) (= presence of CW (cw > 0))
	Mesic to sub-mesic Aspen	A	104	01 04 05	21-ys, 21	SP DP PF*	AP	At	Slope 2+ Aspect var Slope pos md-up SMR sm-m Landform var Drainage w	Mahoaqu Sympalb Rosanut Calarub Poapre	Post-process from map entity 100, Sub-mesic to mesic forest (SP, DP) with At leading	(SP or DP or PF) and (Sp1 = At)

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IDFxh1, IDFxh1a	Sub-hygic Aspen	A	105	06 07 08	22, 23	SD DD*	AD	At AtSx	Slope 3- Aspect cool Slope pos md- to SMR shg-hg Landform var Drainage i	Mahoaqu Sympalb Amelaln Acergla Cornsto Osmorhiza spp	Post-process from map entities 101,102, Mesic to sub-hygic forest, and Sub-hygic to hygic forest SD, DD with At leading	(SD or DD) and (Sp1 = At)
	Shrub Wetland	W	106	09	30-32	WS	WE	Non-forested	Slope 1 Aspect na Slope pos dp- lv SMR shg-hg Landform var Drainage i-p	Sympalb		WS
	Herb Wetland	W	107	N/A	40-45	HW	GW	Non-forested	Slope 1 Aspect na Slope pos dp SMR hg-hd Landform O, L Drainage p-v	Carex spp		HW
ESSFmw	Talus	T	108	N/A	71	BT*	TA	Non-forested	Slope 3+ Aspect var Slope pos var SMR vx Landform Cb Drainage x	Racomitrium sp	Brushy talus was meant to describe alder dominated mesic to subhygic sites not non-forested rapidly drained talus – need to develop new kt, kt attributes: Terrain-Cb, nonforested FC – NCBR or R, steep slope	BT or ((Npdesc = R) and (Sm=C))

Merritt Predictive Ecosystem Mapping – Map Entities

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
ESSFmw	Rock outcrops	R	109	02	02, 03	LJ	RO	Non-forested, <10 % trees, PI	Slope var Aspect var Slope pos cr-md SMR vx Landform Cv/R, R Drainage x	Vaccmem	Veg variable in the two components	LJ
	Fd-falsebox-pinegrass	F	110	03	04	DF	FP	PIFd(Se Bi)	Slope 2+ Aspect warm Slope pos md SMR sx-m Landform Cv/Mb Drainage w	Amelain > 5% Paximyr Vaccmem Calarub Orthsec Arnilat Goodobl Rhytrob	If Fd absent will be very difficult to distinguish from next unit, FH, kt does not weight warm and hot much more heavily than cool and neutral	DF
	Warm aspect without Fd	F	111	04	05, 06	FH	PG	BIPI(Se)	Slope var Aspect warm Slope pos md-up SMR sx-m Landform Cv/Mv, C Drainage w-r	Paximyr Vaccmem Dicranum sp Rhytrob	kt does not weight warm and hot much more heavily than cool and neutral	FH
ESSFmw	Mesic forest	F	112	05 01	07, 08-ms, 08, 01-ms, 01	FA FR*	BR	BISe SeBI(Ba) BISe(PI)	Slope var Aspect var Slope pos md-lw SMR m-sm Landform Mb, C Drainage w-mw	> 5% Vaccmem Rhodalb Arnilat Rubuped Dicranum sp Rhytrob Brachyt		(FA or FR)

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ESSFmw	Bl-gooseberry-valerian	F	113	06	09	FV	SG	SeBl	Slope 3- Aspect var Slope pos lw- to SMR shg Landform Mb, Fb Drainage i	Vaccmem Rhodalb Ribelac Orthsec Arnilat Rubuped > 5% Valesit Tiaruni Streamp Brachyt Veravir		FV
	Bl-gooseberry-horsetail	F	114	08	10	FG FO	SH	BISe	Slope 1 Aspect na Slope pos to SMR shg-hg Landform Fb, Ob Drainage i-p	Vaccmem Rhodalb Ribelac Pedibra Arnilat Rubuped Veravir Valesit Mitella sp Tiaruni Streamp Trolalb > 10% Equiarv Brachyt		FG and FO
	Meadow	M	115	N/A	61, 62	AH	VS	Non-forested	Slope 1 Aspect na Slope pos lv SMR m-shg Landform var Drainage m	Achimil Potedru	Veg variable, kt relies entirely on NPDESC= A or M, data is from low elevation and slope class 1, could add slope class to kt	AH

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ESSFmw	Shrubby Avalanche Tracks	Av	116	N/A	75-77	DH	AH	Non-forested	Slope 3+ Aspect var Slope pos var SMR sx-m Landform Cb Drainage w-m	Alnuvir Salix sp Thalocc Veravir Epilang Elymgla	No kt to approximate this, could add Gp=A, Af, Am, Aw, Ao with high weighting, e.g. 100, S=4+, NPDESC=A, NP	(Gp = (A or Af or Am or Aw or Ao)) and (Npdesc=NPBR) or DH
	Herb Avalanche Tracks	Av	117	N/A	78	none	BF	Non-forested	Slope 3- Aspect var Slope pos lw-md SMR sm-m Landform C Drainage m	Achimil Thalocc Valesit > 5% Epilang Elymgla > 5% Calarub	No kt to approximate this, could add Gp=A, Af, Am, Aw, Ao with high weighting, e.g. 100, S=3-, NPDESC=A, M,OR	(Gp = (A or Af or Am or Aw or Ao)) (after ME116 removed) and Npdesc <> 'NPBR)
	Shrub Wetlands	W	118	N/A	31	SW	WE	Non-forested	Slope 1 Aspect na Slope pos dp-lv SMR hg-shd Landform F Drainage p	Salix sp Pedibra Trolalb Leptpyr Senetri Equiarv Calacan Alaupal	Unit 41 was placed in shrub wetlands in error, not caught during July 23, 2002 meeting	SW
	Herb Wetlands	W	119	N/A	41-43	HW	GW	Non-forested	Slope 1 Aspect na Slope pos dp-to SMR hg-shd Landform O Drainage p	Carex spp Erioang Sphagnum		HW
	BIBa – oak fern – lady fern			07		FO					No longer recognized do not map	? where to assign ? DH went to entity 114

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ESSFmw	Ds –herb grass,DH and open poor BI forest, OB										What to do with these units, not in map entities agreed to, because of lack of any other criteria, get ties for AH and DH and DH and OB based on kts	Leave alone for now ? where to assign ? DH went to entity 116
MSmw	Talus		120	N/A	71	none	TA	Non-forested or <20% PI	Slope var Aspect warm Slope pos var SMR VX Landform Cb Drainage x, r	Junicom Paximyr Racomitrium	Use knowledge table for MSdm2 map entity 27 (modified BT kt)	BT or ((Npdsc = R) and (Sm=C)) Or ((LG or LJ) and LSP = “ “)
	Kinnikinnik-rock-moss		121	02	02	JW	YV	Non-forested or about 10% Fd	Slope 3 Aspect warm Slope pos cr SMR vx, x Landform R Drainage x, r	Arctuva Dryppat Racomitrium	Use knowledge table for MSdm2 map entity 28 (JW Oikos map code)	JW
	Fd-falsebox-pinegrass		122	03 04 01	03	LJ LG SF*	FF	Fd (PI) PI	Slope 3+ Aspect warm Slope pos var SMR sm-x Landform var Drainage r, w	Paximyr Rubupar Disphoo Astecon >5% calarub Chimumb Orthsec Clinuni Smilrac	Use knowledge table for MSdm2 map entity 29 (LJ+ post process for Fd leading)	(LJ or LG or SF) and (LSP = Fd and LSP = PY)

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MSmw	Pl-grouseberry		123	03 04	04	LJ LG*	PG	PI	Slope var Aspect warm or n/a Slope pos var SMR sx-sm Landform Cb, FGt Drainage r, w	Spirbet Paximyr >5% Vaccsco Dicranum	Use knowledge table for MSdm2 map entity 30 (LG + post processing for PI leading)	(LJ or LG) and (LSP = PI or LSP = Pa)
	Mesic forest		124	01 03 04	05, 01, 06	SF LJ LG*	YU	Bl,Sxw Sxw, Bl, Fd	Slope var Aspect n/a or cool Slope pos md SMR sm-shg Landform Mb Drainage m	>5% Vaccmem Orthsec Rhytrob Pleusch	Use knowledge table for MSdm2 map entity 31 (SF), component site units variable floristically	(SF and LSP <=> Fd) or ((LJ or LG) and (Sp1 = (Sx or BI or AC or HW or CW)))
	Sub-hygic forest		125	05 06	07, 08	SG SD*	SG	Sxw, Bl	Slope 3- Aspect n/a, (cool) Slope pos md-to SMR Shg-hg Landform Fb Drainage i	Ribelac Rubupar Clinuni Rubuped Tiaruni >5% gymndry Brachyt	Use knowledge table for MSdm2 map entity 32 (SG, SD)	(SG or SD)
	Sxw-common horsetail		126	07	09	SH	SH	Sxw(BI)	Slope 1 Aspect n/a Slope pos to-lv SMR hg,shd Landform Fb (Ov) Drainage p	Vaccmem Ribelac Alnuvir Loniinv Rubuped Corncan Epilang Valesit Brachyt Rhizmag	Use MSdm2 map entity 33 (SH)	SH

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MSmw	Shrubby Avalanche Track		127	N/A	75, 76	None	AF	Non-forested	Slope 3- Aspect warm (n/a) Slope pos lw-md SMR sm-shg Landform var Drainage m	Streros Thalocc Calacan	Based on few plots, variable floristically Appears to include both track and runout zone units Use knowledge table for ESSFmw map entity 116	(Gp = (A or Af or Am or Aw or Ao)) and (Npdesc=NPBR)
	Blue wildrye-sitka-valerian Avalanche Track		128	N/A	77	none	BV	Non-forested	One plot only Slope Aspect Slope pos SMR Landform Drainage	Valesit Elymgla Fragvir Thalocc	Based on one plot, appears to be runout zone unit Use knowledge table for ESSFmw map entity 117	(Gp = (A or Af or Am or Aw or Ao)) (after ME127 removed) and (Npdesc=<>NPBR)
	Shrub Wetland		129	N/A	31-33	SW	WE	Non-forested	Slope 1 Aspect n/a Slope pos to-dp SMR Hg-shd Landform O, Fb Drainage p, v	Alnuvir Equiarv Calacan >10% careaqu	Use knowledge table for MSdm2 map entity 34 (SW)	SW
	Herb Wetland		130	N/A	41-46	HW	GW	Non-forested	Slope 1 Aspect n/a Slope pos dp SMR shd Landform O Drainage v,p	Carex spp	Variable floristically Use knowledge table for MSdm2 map entity 35 (HW)	HW

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AT	Dry open parkland forest		DP	N/A		DP	DP		Occurring on upper slopes, crests and rock outcrops; coarse-medium textured, very thin to thin soils over bedrock	Dry open parkland forest	Oikos complex unit; dry open parkland forest; complex of clumps of trees, on very dry hummocks and rock outcrops, interspersed with SL	DP
	Scrub-Lichen		SL	N/A		SL	SL		Occurs on upper slopes, crests and rock outcrops; coarse-medium textured, very thin to thin soils		Oikos complex unit; includes the S (Scrub) KFR unit described for the Coast Mountains AT in Lloyd et al. (1990), as well as the dry lichen Oikos unit.	SL
	Mistic Open Parkland Forest		MP	N/A		MP	MP		Occurring on gentle-steep mid slopes and level hummocky terrain; moderately deep - deep, medium textured soil		Oikos complex unit; mesic open parkland forest; complex of clumps of trees, on drier hummocks, interspersed with HG in depressions	MP
	Heath-Grass		HG	N/A		HG	HG		(Mountain Heather dominated); medium SNR; mesic SMR		Oikos complex unit; includes the H (heath) KFR unit for the Coast Mountains AT as described in Lloyd et al. (1990) and less amounts of Oikos grass unit; similar to BEU units: AH and SM	HG

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
AT	Moist (subhygric) Open Parkland Forest		SP	N/A		SP	SP		Occurring on gentle-steep lower receiving slopes and toes; deep, medium textured soil; rich-medium SNR; subhygric-hygric SMR		Oikos complex unit; moist open parkland forest; complex of clumps of trees, interspersed with HS in depressions	SP
	Moist Herb Meadow-Sedge		HS	N/A		HS	HS				Oikos complex unit; includes the Oikos moist herb and sedge meadow unit (similar to the HM2 KFR unit for the Columbia Mountain AT) and also includes the ecologically similar Oikos unit DH from ESSFmw. Similar to BEU units: AM (Forb dominated) and SM (Forb	HS
	Shrub Wetlands		SW	N/A		SW	WE		subhydic - hygric SMR		Oikos unit; includes all shrub wetlands	SW

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AT	Herb Wetlands		HW	N/A		HW	GW				Oikos unit; includes the SM (Sedge meadow) KFR unit for the Coast Mountains AT as described in Lloyd et al. (1990); as well as sedge fens, wet meadows and all other herb wetlands; also includes BEU units: SM (sedge dominated) and AM (sedge dominated); sub	HW
	Talus		TA	N/A		TA	TA				TEM unit; as described in Table 3.1 of TEM standards; sparsely or non-vegetated	TA
	Brushy Talus		BT	N/A		BT	BT		Occurring mainly on colluvium, medium to rich SNR		Oikos unit, non-forested, mesic to subhygric seepage areas dominated by alders and forbs	BT
	Rock Outcrop		RO	N/A		RO	RO				TEM unit; as described in Table 3.1 of TEM standards; sparsely or non-vegetated; also includes areas of ice and permanent snow; and also includes BEU units: AN and AU.	RO

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AT-Emwp	Dry Closed Forest		DF	N/A		DF	DF		Poorer SNR; subxeric - very xeric SMR		Oikos unit; dry closed forest occurring on upper slopes, crests and rock outcrops; coarse-medium textured, very thin to thin soils over bedrock; ecologically similar to drier units LJ and DF of ESSFmw	DF
	Dry Open Parkland Forest		DP	N/A		DP	DP		Occurring on upper slopes, crests and rock outcrops; coarse-medium textured, very thin to thin soils over bedrock; ecologically similar to OB unit of ESSFmw; similar to dry WP BEU unit; poorer SNR; subxeric - very xeric SMR		Oikos complex unit; dry open parkland forest; complex of clumps of trees, on very dry hummocks and rock outcrops, interspersed with SL	DP

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AT-Emwp	Scrub-Lichen		SL	N/A		SL	SL		Occurs on upper slopes, crests and rock outcrops; coarse-medium textured, very thin to thin soils over bedrock; ecologically similar to openings of the OB unit of ESSFmw; poorer SNR; subxeric - very xeric SMR		Oikos complex unit; includes the S (Scrub) KFR unit described for the Coast Mountains AT in Lloyd et al. (1990), as well as the dry lichen Oikos unit.	SL
	Mesic Closed Forest		MF	N/A		MF	MF		Occurring on gentle-steep mid slopes and level; moderately deep - deep, medium textured soil; ecologically similar to mesic units FR and FH of ESSFmw; medium-poor SNR; submesic - mesic SMR		Oikos unit; mesic closed forest SMR	MF

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AT-Emwp	Mesic Open Parkland Forest		MP	N/A		MP	MP		Occurring on gentle-steep mid slopes and level hummocky terrain; moderately deep - deep, medium textured soil; similar to mesic WP BEU unit; medium-poor SNR; submesic - mesic SMR		Oikos complex unit; mesic open parkland forest; complex of clumps of trees, on drier hummocks, interspersed with HG in depressions;	MP
	Heath-Grass		HG	N/A		HG	HG		medium SNR; mesic SMR		Oikos complex unit; includes the H (heath) KFR unit for the Coast Mountains AT as described in Lloyd et al. (1990) and less amounts of Oikos grass unit; similar to BEU units: AH and SM (Mountain Heather dominated);	HG

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AT-Emwp	Moist (subhygric Closed Forest		SF	N/A		SF	SF		Occurring on gentle-steep lower receiving slopes and toes; deep, medium textured soil; ecologically similar to subhygric units FA and FV of ESSFmw; rich-medium SNR; subhygric-hygric SMR		Oikos unit; moist closed forest.	SF
	Moist (subhygric) Closed Forest		SP	N/A		SP	SP		Deep, medium textured soil; rich-medium SNR; subhygric-hygric SMR		Oikos complex unit; moist open parkland forest; complex of clumps of trees, interspersed with HS in depressions; occurring on gentle-steep lower receiving slopes and toes	SP

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AT-Emwp	Brushy Moist Herb Meadow-Sedge		HS	N/A		HS	HS		Occurs on gentle-steep lower receiving slopes, toes, mid-lower avalanche tracks and in depressions; deep, medium textured soil; rich-medium SNR; hygic-subhygic SMR		Oikos complex unit; includes the Oikos moist herb and sedge meadow unit (similar to the HM2 KFR unit for the Columbia Mountain AT) and also includes the ecologically similar Oikos unit DH from ESSFmw. Similar to BEU units: AM (Forb dominated) and SM (Forb dominated)	HS
	Shrub Wetlands		SW	N/A		SW	WE		subhydic - hygic SMR		Oikos unit; includes all shrub wetlands	SW
	Herb Wetlands		HW	N/A		HW	GW		subhydic - hygic SMR		Oikos unit; includes the SM (Sedge meadow) KFR unit for the Coast Mountains AT as described in Lloyd et al. (1990); as well as sedge fens, wet meadows and all other herb wetlands; also includes BEU units: SM (sedge dominated) and AM (sedge dominated)	HW
	Talus		TA	N/A		TA	TA				TEM unit; as described in Table 3.1 of TEM standards; sparsely or non-vegetated	TA

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AT-Emwp	Brushy Talus		BT	N/A		BT	BT		Mainly on colluvium, medium to rich SNR		Oikos unit, non-forested, mesic to subhygric seepage areas dominated by alders and forbs	BT
	Rock Outcrop		RO	N/A		RO	RO				TEM unit; as described in Table 3.1 of TEM standards; sparsely or non-vegetated; also includes areas of ice and permanent snow; and also includes BEU units: AN and AU.	RO
	Bluebunch wheatgrass-Selaginella		WS	N/A		WS	WS				As described in Lloyd et al. (1990)	WS
	Py-Red three-awn		PT	N/A		PT	PT				As described in Lloyd et al. (1990)	PT
	Py-Bluebunch wheatgrass		PW	N/A		PW	PW				As described in Lloyd et al. (1990)	PW
	Big sage-Needle-and-thread grass		SN	N/A		SN	SN				As described in Lloyd et al. (1990)	SN

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BGxh2	Big sage-Bluebunch Wheatgrass		SW	N/A		SW	SW				As described in Lloyd et al. (1990)	SW
	Rough Fescue-Bluebunch wheatgrass		FW	N/A		FW	FW				As described in Lloyd et al. (1990), also occurs in gullies	FW
	Act-Snowberry-Dogwood		CD	N/A		CD	CD				As described in Lloyd et al. (1990), also occurs on active floodplains	CD
	Wolly sedge-Arctic rush		SR	N/A		SR	SR				As described in Lloyd et al. (1990)	SR
BGxh2	Shrub Wetlands		BW	N/A		BW	WE				*New Oikos unit and letter code, all non-forested shrub wetlands; includes BEU units: SC, SH, SW	BW
BGxw1	Bluebunch wheatgrass-Selaginella		WS	N/A		WS	WS				As described in Lloyd et al. (1990)	WS

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BGxw1	Py-Bluebunch wheatgrass		PW	N/A		PW	PW				As described in Lloyd et al. (1990)	PW
	Big sage-Bluebunch wheatgrass		SW	N/A		SW	SW				As described in Lloyd et al. (1990)	SW
	Bluebunch wheatgrass-Junegrass		WJ	N/A		WJ	WJ				As described in Lloyd et al. (1990)	WJ
	Py-Rough Fescue-Bluebunch wheatgrass		PF	N/A		PF	PF				As described in Lloyd et al. (1990)	PF
	Rough Fescue-Bluebunch wheatgrass		FW	N/A		FW	FW				As described in Lloyd et al. (1990)	FW
	Giant Wildrye		GR	N/A		GR	GR				As described in Lloyd et al. (1990), also occurs in gullies	GR

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BGxw1	At-Snowberry-Kentucky bluegrass		AS	N/A		AS	AS				As described in Lloyd et al. (1990), also occurs on active floodplains	AS
	Salt-grass-Sedge		SS	N/A		SS	SS				As described in Lloyd et al. (1990)	SS
	Shrub Wetlands		BW	N/A		BW	WE				*New Oikos unit and letter code, all non-forested shrub wetlands; includes BEU units: SC, SH, SW	BW
CWHms1	Fd PI-Kinnikinnick		DK	N/A		DK	DK		occurs on crests, rock outcrops and upper slopes, with shallow soils, usually on south aspects		As described in Green et al (1994)	DK
	Fd Hw-Fasebox		DF	N/A		DF	DF		occurs on steep-gentle, upper-mid slopes		As described in Green et al (1994)	DF
	Hw Ba-Step moss		AM	N/A		AM	AM		occurs on steep-gentle, mid slopes		As described in Green et al (1994)	AM

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CWHms1	Ba Cw-Oak Fern		AO	N/A		AO	AO		occurs on steep slopes		As described in Green et al (1994)	AO
	Hw Ba-Queen's cup		HQ	N/A		HQ	HQ		occurs on gentle lower receiving slopes		As described in Green et al (1994)	HQ
	Ba Cw-Devil's Club		AD	N/A		AD	AD		occurs on steep, seepage slopes and gullies		As described in Green et al (1994)	AD
	Ss-Salmonberry Act-Red-osier dogwood		SC	N/A		SS/CD	YT		active fluvial floodplain high and mid bench		Oikos assigned letter code from SS/CD. As described in Green et al (1994),	SS/CD = SC in the KB should actually be = YT
	Act-Willow		CW	N/A		CW	CW		active fluvial floodplain low bench		As described in Green et al (1994)	CW
	PI-Sphagnum		LS	N/A		LS	LS		treed bog, occurring on level ground and in depressions		As described in Green et al (1994)	LS

Merritt Predictive Ecosystem Mapping – Map Entities

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
CWHms1	Cw Ss-Skunk cabbage		RC	N/A		RC	RC		treed swamp, poorly drained, occuring on level ground and in depressions		As described in Green et al (1994)	RC
	Herb Wetland		HW	N/A		HW	WE				New Oikos unit, all non-forested sedge fens and herb wetlands; includes BEU units: BG, FE, ME, MR	HW
	Shrub Wetland		SW	N/A		SW	GW				New Oikos unit, all non-forested shrub wetlands; includes BEU units: SC, SH, SW	SW
	Bursly Talus		BT	N/A		BT	BT				New Oikos unit, non-forested, mesic to subhygric seepage areas dominated by alders and forbs; mainly on colluvium, medium to rich SNR	BT

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
ESSFdc2p	Dry Closed Forest		DF	N/A		DF	DF		occurring on upper slopes, crests and rock outcrops; coarse-medium textured, very thin to thin soils over bedrock; ecologically similar to drier units LJ and LF of ESSFdc2 and LJ, PJ and FC of ESSFxc; poorer SNR; subxeric - very xeric SMR		Oikos unit; dry closed forest	DF

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
ESSFdc2p	Dry Open Parkland Forest		DP	N/A		DP	DP		occurring on upper slopes, crests and rock outcrops; coarse-medium textured, very thin to thin soils over bedrock; ecologically similar to OB unit of ESSFdc2 and ESSFxc; similar to the dry atypical FP BEU unit; poorer SNR; subxeric - very xeric SMR		Oikos complex unit; dry open parkland forest; complex of clumps of trees, on very dry hummocks and rock outcrops, interspersed with SD	DP

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
ESSFdc2p	Scrub-Dry Herb Meadow		SD	N/A		SD	SD		Occurs on upper slopes, crests and rock outcrops; coarse-medium textured, very thin to thin soils over bedrock; ecologically similar to openings of the OB unit of ESSFdc2 and ESSFxc; poorer SNR; subxeric - very xeric SMR		Oikos complex unit; includes both the S (Scrub) and HM1 (dry herb meadow) KFR units described for the Thompson Plateau AT in Lloyd et al. (1990), as well as the dry lichen Oikos unit	SD
	Mesic Closed Forest		MF	N/A		MF	MF		occurring on gentle-steep mid slopes and level; moderately deep - deep, medium textured soil; ecologically similar to mesic units FR and FV of ESSFdc2 and FG and FR of ESSFxc; medium-poor SNR; submesic - mesic SMR		Oikos unit; mesic closed forest	MF

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ESSFdc2p	Mesic Open Parkland Forest		MP	N/A		MP	MP		occurring on gentle-steep mid slopes and level hummocky terrain; moderately deep - deep, medium textured soil; similar to the typical FP BEU unit; medium-poor SNR; submesic - mesic SMR		Oikos complex unit; mesic open parkland forest; complex of clumps of trees, on drier hummocks, interspersed with GS in depressions;	MP
	Grass-Sedge Mesic Meadow		GS	N/A		GS	GS		medium SNR; mesic SMR		KFR unit for the Thompson Plateau AT as described in Lloyd et al. (1990); similar to SG BEU unit	GS

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
ESSFdc2p	Moist (subhygric) Closed Forest		SF	N/A		SF	SF		occurring on gentle-steep lower receiving slopes and toes; deep, medium textured soil; ecologically similar to subhygric-hygric units FO and FT of ESSFdc2 and FF and FH of ESSFxc; rich-medium SNR; subhygric-hygric SMR		Oikos unit; moist closed forest	SF
	Moist (subhygric) Closed Forest		SP	N/A		SP	SP		occurring on gentle-steep lower receiving slopes and toes; deep, medium textured soil; rich-medium SNR; subhygric-hygric SMR		Oikos complex unit; moist open parkland forest; complex of clumps of trees, interspersed with HH in depressions	SP

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
ESSFdc2p	Heath-Moist Herb Meadow		HH	N/A		HH	HH		Occurs on gentle-steep lower receiving slopes, toes, mid-lower avalanche tracks and in depressions; deep, medium textured soil; rich-medium SNR; hygric-subhygric SMR		Oikos complex unit; includes the H (Heath) KFR unit described for the Thompson Plateau AT in Lloyd et al. (1990), Oikos moist herb and sedge meadow unit (similar to the HM2 KFR unit for the Columbia Mountain AT) and also includes the ecologically similar Oikos unit DH from ESSFdc2 and ESSFxc. Similar to BEU units: AH, SM (Forb dominated and mountain heather dominated) and AM (Forb dominated).	HH
	Herb Wetlands		HW	N/A		HW	GW		subhydic - hygric SMR		Oikos unit; includes sedge fens, wet sedge meadows and all other herb wetlands; includes BEU units: SM (sedge dominated) and AM (sedge dominated);	HW
	Shrub Wetlands		SW	N/A		SW	WE		subhydic - hygric SMR		Oikos unit; includes all shrub wetlands;	SW
	Talus		TA	N/A		TA	TA				TEM unit; as described in Table 3.1 of TEM standards; sparsely or non-vegetated	TA

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
ESSFdc2p	Brushy Talus		BT	N/A		BT	BT		mainly on colluvium, medium to rich SNR		Oikos unit, non-forested, mesic to subhygric seepage areas dominated by alders and forbs	BT
	Rock Outcrop		RO	N/A		RO	RO				TEM unit; as described in Table 3.1 of TEM standards; sparsely or non-vegetated; also includes areas of ice and permanent snow; and also includes BEU units: AN and AU.	RO
ESSFmwp	Dry Closed Forest		DF	N/A		DF	DF		Poorer SNR; subxeric - very xeric SMR		Oikos unit; dry closed forest occurring on upper slopes, crests and rock outcrops; coarse-medium textured, very thin to thin soils over bedrock; ecologically similar to drier units LJ and DF of ESSFmw	DF

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
ESSFmwp	Dry Open Parkland Forest		DP	N/A		DP	DP		Occurring on upper slopes, crests and rock outcrops; coarse-medium textured, very thin to thin soils over bedrock; ecologically similar to OB unit of ESSFmw; similar to dry WP BEU unit; poorer SNR; subxeric - very xeric SMR		Oikos complex unit; dry open parkland forest; complex of clumps of trees, on very dry hummocks and rock outcrops, interspersed with SL	DP
	Scrub-Lichen		SL	N/A		SL	SL		Occurs on upper slopes, crests and rock outcrops; coarse-medium textured, very thin to thin soils over bedrock; ecologically similar to openings of the OB unit of ESSFmw; poorer SNR; subxeric - very xeric SMR		Oikos complex unit; includes the S (Scrub) KFR unit described for the Coast Mountains AT in Lloyd et al. (1990), as well as the dry lichen Oikos unit.	SL

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
ESSFmwp	Mesic Closed Forest		MF	N/A		MF	MF		Occurring on gentle-steep mid slopes and level; moderately deep - deep, medium textured soil; ecologically similar to mesic units FR and FH of ESSFmw; medium-poor SNR; submesic - mesic SMR		Oikos unit; mesic closed forest SMR	MF
	Mesic Open Parkland Forest		MP	N/A		MP	MP		Occurring on gentle-steep mid slopes and level hummocky terrain; moderately deep - deep, medium textured soil; similar to mesic WP BEU unit; medium-poor SNR; submesic - mesic SMR		Oikos complex unit; mesic open parkland forest; complex of clumps of trees, on drier hummocks, interspersed with HG in depressions;	MP

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
ESSFmwp	Heath-Grass		HG	N/A		HG	HG		medium SNR; mesic SMR		Oikos complex unit; includes the H (heath) KFR unit for the Coast Mountains AT as described in Lloyd et al. (1990) and less amounts of Oikos grass unit; similar to BEU units: AH and SM (Mountain Heather dominated);	HG
	Moist (subhygric) Closed Forest		SF	N/A		SF	SF		Occurring on gentle-steep lower receiving slopes and toes; deep, medium textured soil; ecologically similar to subhygric units FA and FV of ESSFmw; rich-medium SNR; subhygric-hygric SMR		Oikos unit; moist closed forest.	SF
	Moist (subhygric) Closed Forest		SP	N/A		SP	SP		Deep, medium textured soil; rich-medium SNR; subhygric-hygric SMR		Oikos complex unit; moist open parkland forest; complex of clumps of trees, interspersed with HS in depressions; occurring on gentle-steep lower receiving slopes and toes	SP

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
ESSFmwp	Brushy Moist Herb Meadow-Sedge		HS	N/A		HS	HS		Occurs on gentle-steep lower receiving slopes, toes, mid-lower avalanche tracks and in depressions; deep, medium textured soil; rich-medium SNR; hygic-subhygic SMR		Oikos complex unit; includes the Oikos moist herb and sedge meadow unit (similar to the HM2 KFR unit for the Columbia Mountain AT) and also includes the ecologically similar Oikos unit DH from ESSFmw. Similar to BEU units: AM (Forb dominated) and SM (Forb dominated)	HS
	Shrub Wetlands		SW	N/A		SW	WE		subhydic - hygic SMR		Oikos unit; includes all shrub wetlands	SW
	Herb Wetlands		HW	N/A		HW	GW		subhydic - hygic SMR		Oikos unit; includes the SM (Sedge meadow) KFR unit for the Coast Mountains AT as described in Lloyd et al. (1990); as well as sedge fens, wet meadows and all other herb wetlands; also includes BEU units: SM (sedge dominated) and AM (sedge dominated)	HW
	Talus		TA	N/A		TA	TA				TEM unit; as described in Table 3.1 of TEM standards; sparsely or non-vegetated	TA

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ESSFmwp	Brushy Talus		BT	N/A		BT	BT		Mainly on colluvium, medium to rich SNR		Oikos unit, non-forested, mesic to subhygric seepage areas dominated by alders and forbs	BT
	Rock Outcrop		RO	N/A		RO	RO				TEM unit; as described in Table 3.1 of TEM standards; sparsely or non-vegetated; also includes areas of ice and permanent snow; and also includes BEU units: AN and AU.	RO
	Dry Closed Forest		DF	N/A		DF	DF		occurring on upper slopes, crests and rock outcrops; coarse-medium textured, very thin to thin soils over bedrock; ecologically similar to drier units LJ and LF of ESSFdc2 and LJ, PJ and FC of ESSFxc; poorer SNR; subxeric - very xeric SMR		Oikos unit; dry closed forest	DF

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
ESSFxcp	Dry Open Parkland Forest		DP	N/A		DP	DP		occurring on upper slopes, crests and rock outcrops; coarse-medium textured, very thin to thin soils over bedrock; ecologically similar to OB unit of ESSFdc2 and ESSFxc; similar to the dry atypical FP BEU unit; poorer SNR; subxeric - very xeric SMR		Oikos complex unit; dry open parkland forest; complex of clumps of trees, on very dry hummocks and rock outcrops, interspersed with SD	DP

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ESSFxcp	Scrub-Dry Herb Meadow		SD	N/A		SD	SD		Occurs on upper slopes, crests and rock outcrops; coarse-medium textured, very thin to thin soils over bedrock; ecologically similar to openings of the OB unit of ESSFdc2 and ESSFxc; poorer SNR; subxeric - very xeric SMR		Oikos complex unit; includes both the S (Scrub) and HM1 (dry herb meadow) KFR units described for the Thompson Plateau AT in Lloyd et al. (1990), as well as the dry lichen Oikos unit	SD
	Mesic Closed Forest		MF	N/A		MF	MF		occurring on gentle-steep mid slopes and level; moderately deep - deep, medium textured soil; ecologically similar to mesic units FR and FV of ESSFdc2 and FG and FR of ESSFxc; medium-poor SNR; submesic - mesic SMR		Oikos unit; mesic closed forest	MF

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ESSFxcpc	Mesic Open Parkland Forest		MP	N/A		MP	MP		occurring on gentle-steep mid slopes and level hummocky terrain; moderately deep - deep, medium textured soil; similar to the typical FP BEU unit; medium-poor SNR; submesic - mesic SMR		Oikos complex unit; mesic open parkland forest; complex of clumps of trees, on drier hummocks, interspersed with GS in depressions;	MP
	Grass-Sedge Mesic Meadow		GS	N/A		GS	GS		medium SNR; mesic SMR		KFR unit for the Thompson Plateau AT as described in Lloyd et al. (1990); similar to SG BEU unit	GS

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ESSFxcp	Moist (subhygric) Closed Forest		SF	N/A		SF	SF		occurring on gentle-steep lower receiving slopes and toes; deep, medium textured soil; ecologically similar to subhygric-hygric units FO and FT of ESSFdc2 and FF and FH of ESSFxc; rich-medium SNR; subhygric-hygric SMR		Oikos unit; moist closed forest	SF
	Moist (subhygric) Closed Forest		SP	N/A		SP	SP		occurring on gentle-steep lower receiving slopes and toes; deep, medium textured soil; rich-medium SNR; subhygric-hygric SMR		Oikos complex unit; moist open parkland forest; complex of clumps of trees, interspersed with HH in depressions	SP

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ESSFxcp	Heath-Moist Herb Meadow		HH	N/A		HH	HH		Occurs on gentle-steep lower receiving slopes, toes, mid-lower avalanche tracks and in depressions; deep, medium textured soil; rich-medium SNR; hygic-subhygic SMR		Oikos complex unit; includes the H (Heath) KFR unit described for the Thompson Plateau AT in Lloyd et al. (1990), Oikos moist herb and sedge meadow unit (similar to the HM2 KFR unit for the Columbia Mountain AT) and also includes the ecologically similar Oikos unit DH from ESSFdc2 and ESSFxc. Similar to BEU units: AH, SM (Forb dominated and mountain heather dominated) and AM (Forb dominated).	HH
	Herb Wetlands		HW	N/A		HW	GW		subhydic - hygic SMR		Oikos unit; includes sedge fens, wet sedge meadows and all other herb wetlands; includes BEU units: SM (sedge dominated) and AM (sedge dominated);	HW
	Shrub Wetlands		SW	N/A		SW	WE		subhydic - hygic SMR		Oikos unit; includes all shrub wetlands;	SW
	Talus		TA	N/A		TA	TA				TEM unit; as described in Table 3.1 of TEM standards; sparsely or non-vegetated	TA

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ESSFxcp	Brushy Talus		BT	N/A		BT	BT		mainly on colluvium, medium to rich SNR		Oikos unit, non-forested, mesic to subhygric seepage areas dominated by alders and forbs	BT
	Rock Outcrop		RO	N/A		RO	RO				TEM unit; as described in Table 3.1 of TEM standards; sparsely or non-vegetated; also includes areas of ice and permanent snow; and also includes BEU units: AN and AU.	RO
MHm2	Hm Ba - Mountain heather		MM	N/A		MM	MM		occurs on crests, rock outcrops and upper slopes, with shallow soils, usually on south aspects		As described in Green et al (1994),	MM
	Hm Ba - Blueberry		MB	N/A		MB	MB		occurs on steep slopes		As described in Green et al (1994)	MB
	Ba Hm - Oak fern		MO	N/A		MO	MO		occurs on steep slopes, with base rich parent materials		As described in Green et al (1994)	MO

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MHm2	Hm Ba - Bramble		AB	N/A		AB	AB		occurs on gentle mid-lower receiving slopes		As described in Green et al (1994)	AB
	Ba Hm - Twistedstalk		MT	N/A		MT	MT		occurs on steep-gentle mid-lower receiving slopes and gullies		As described in Green et al (1994)	MT
	Hm Yc - Deer cabbage		MD	N/A		MD	MD		occurs on gentle lower-toe receiving seepage slopes		As described in Green et al (1994)	MD
	YcHm - Hellebore		YH	N/A		YH	YH		occurs on steep-gentle, lower receiving seepage slopes and gullies		As described in Green et al (1994)	YH
	Hm Yc - Sphagnum		YS	N/A		US	US		treed bog, occurs on level ground and in depressions		As described in Green et al (1994)	US
	Yc Hm - Skunk cabbage		YC	N/A		YC	YC		treed swamp, poorly drained, occurs on level ground and in depressions		As described in Green et al (1994)	YC

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MHm2	Herb Wetlands		SW	N/A		SW	GW		all non-forested sedge fens and herb wetlands; includes BEU units: BG, FE, ME, MR		New Oikos Unit	SW
	Shrub Wetlands		HW	N/A		HW	WE		all non-forested shrub wetlands; includes BEU units: SC, SH, SW		New Oikos Unit	HW
	Ds - Herb - grass		DH	N/A		DH	DH		Alder thickets interspersed with herb and grass meadows, includes avalanche tracks, with deep soils, richer SNR, submesic-subhygric SMR, transitional to alpine parkland; ecologically similar to HS Oikos unit for ESSFmwp; and similar to SM (Forb dominated) BEU unit.		New Oikos Unit	DH

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MHm2	Open Balsam Forest		OB	N/A		OB	FP		open scrubby balsam forest, on rock, with thin soils, poor SNR, mesic - subxeric SMR, transitional to alpine parkland; ecologically similar to DP Oikos unit for ESSFmwp and to dry atypical FP BEU unit.		New Oikos Unit	OB
	Alpine Heath		AH	N/A		AH	NH		non-forested heath, dominated by grasses and forbs, on rock, and thin colluvial and morainal veneers, with thin soils; poor-medium SNR, mesic-xeric SMR, transitional to alpine parkland; includes the similar HG Oikos unit for ESSFmwp and BEU unit SG and AH.		New Oikos Unit	AH

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
MHmm2	Brushy Talus		BT	N/A		BT	BT		non-forested, mesic to subhygric seepage areas dominated by alders and forbs; mainly on colluvium, medium to rich SNR		New Oikos Unit	BT
MHmm2p	Dry Closed Forest		DF	N/A		DF	DF		occurring on upper slopes, crests and rock outcrops; coarse-medium textured, very thin to thin soils over bedrock; ecologically similar to drier unit MM of MHmm2; poorer SNR; subxeric - very xeric SMR		Oikos unit; dry closed fores	DF
	Dry Open Parkland Forest		DP	N/A		DP	DP		occurring on upper slopes, crests and rock outcrops; coarse-medium textured, very thin to thin soils over bedrock; ecol		Oikos complex unit; dry open parkland forest; complex of clumps of trees, on very dry hummocks and rock outcrops, interspersed with SL	DP

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
MHmm2p	Scrub-Lichen		SL	N/A		SL	SL		Occurs on upper slopes, crests and rock outcrops; coarse-medium textured, very thin to thin soils over		Oikos complex unit; includes the S (Scrub) KFR unit described for the Coast Mountains AT in Lloyd et al. (1990), as well as the dry lichen Oikos unit.	SL
	Mesic Closed Forest		MF	N/A		MF	MF		occurring on gentle-steep mid slopes and level; moderately deep - deep, medium textured soil; ecologically similar to mesic unit MB of MHmm2; medium-poor SNR; submesic - mesic SMR		Oikos unit; mesic closed forest	MF
	Mesic Open Parkland Forest		MP	N/A		MP	MP		occurring on gentle-steep mid slopes and level hummocky terrain; moderately deep - deep, medium textured soil		Oikos complex unit; mesic open parkland forest; complex of clumps of trees, on drier hummocks, interspersed with HG in depressions;	MP

Merritt Predictive Ecosystem Mapping – Map Entities

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
MHmm2p	Heath-Grass		HG	N/A		HG	HG		medium SNR; mesic SMR		Oikos complex unit; includes the H (heath) KFR unit for the Coast Mountains AT as described in Lloyd et al. (1990) and less amounts of Oikos grass unit; similar to BEU units: AH and SM (Mountain Heather dominated);	HG
	Moist (subhygric Closed Forest		SF	N/A		SF	SF		occurring on gentle-steep lower receiving slopes and toes; deep, medium textured soil; ecologically similar to subhygric units AB and MT of MHmm2; rich-medium SNR; subhygric-hygric SMR		Oikos unit; moist closed fores	SF

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
MHmm2p	Moist (subhygric) Open Parkland Forest		SP	N/A		SP	SP		occurring on gentle-steep lower receiving slopes and toes; deep, medium textured soil; rich-medium SNR; subhygric-hygric SMR		Oikos complex unit; moist open parkland forest; complex of clumps of trees, interspersed with HS in depressions	SP
	Moist Herb Meadow-Sedge		HS	N/A		HS	HS				Oikos complex unit; includes the Oikos moist herb and sedge meadow unit (similar to the HM2 KFR unit for the Columbia Mountain AT) and also includes the ecologically similar Oikos unit DH from MHmm2. Similar to BEU units: AM (Forb dominated) and SM (Forb dominated)	HS
	Shrub Wetlands		SW	N/A		SW	WE		subhygric - hygric SMR		ikos unit; includes all shrub wetlands	SW

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MHmm2p	Herb wetlands		HW	N/A		HW	GW				Oikos unit; includes the SM (Sedge meadow) KFR unit for the Coast Mountains AT as described in Lloyd et al. (1990); as well as sedge fens, wet meadows and all other herb wetlands; also includes BEU units: SM (sedge dominated) and AM (sedge dominated); sub	HW
	Talus		TA	N/A		TA	TA				TEM unit; as described in Table 3.1 of TEM standards; sparsely or non-vegetated	TA
	Brushy Talus		BT	N/A		BT	BT		mainly on colluvium, medium to rich SNR		Oikos unit, non-forested, mesic to subhygric seepage areas dominated by alders and forbs	BT
	Rock Outcrop		RO	N/A		RO	RO				TEM unit; as described in Table 3.1 of TEM standards; sparsely or non-vegetated; also includes areas of ice and permanent snow; and also includes BEU units: AN and AU.	RO
PPxh1	Py - Bluebunch wheatgrass - Idaho fescue		PT	N/A		PT	PT				As described in Lloyd et al (1990)	PT

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
PPxh1	Py - Bluebunch wheatgrass - Idaho fescue		SW	N/A		SW	SW				As described in Lloyd et al (1990)	SW
	Py - Bluebunch wheatgrass - Idaho fescue		PC	N/A		PC	PC				As described in Lloyd et al (1990)	PC
	Py - Bluebunch wheatgrass - Idaho fescue		PW	N/A		PW	PW				As described in Lloyd et al (1990)	PW
	Py - Bluebunch wheatgrass - Rough fescue		PF	N/A		PF	PF				As described in Lloyd et al (1990)	PF
	FdPy - Snowberry - Pinegrass		SP	N/A		SP	SP				As described in Lloyd et al (1990)	SP
	FdPy - Snowberry - Spirea		DS	N/A		DS	DS				As described in Lloyd et al (1990)	DS

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BEC unit	Connotative Map Entity Name	Broad ecosystem type	Map Entity #	1990 site series	Proposed site series Feb 2002	Oikos KT Map code	Merritt PEM Site Series letter code	Stand attributes	Environmental attributes	Vegetation recognition criteria	comments	Post-processing logic
PPxh1	Fd - Water birch - Douglas maple		DM	N/A		DM	DM				As described in Lloyd et al (1990)	DM
	Herb Wetlands		HW	N/A		HW	GW				New Oikos unit, all non-forested sedge fens and herb wetlands; includes BEU units: BG, FE, ME, MR	HW
	Shrub Wetlands		SW	N/A		SW	WE				New Oikos unit, all non-forested shrub wetlands; includes BEU units: SC, SH, SW	SW = BW in econg as there are two SW's. But no BW's in output of PEM proposed to be YA
	Brushy Talus		BT	N/A		BT	BT		mainly on colluvium, medium to rich SNR		New Oikos unit, non-forested, mesic to subhygric seepage areas dominated by alders and forbs	BT