Revelstoke PEM Database and Knowledge Table Code Legend
March, 2006

Category	Value	Description	Notes:
PERCENTAGE OF AREA ANALYSIS: (Qualifying Analysis - Applied to some features only)			
_P	1	5-20%	greater than or equal to 5% and less than 20% of the polygon area
_P	2	21- 50%	greater than 21% and less than 50% of the polygon area
_P	3	>50%	greater than 51% of the polygon area
STREAM DENSITY:			
W	0	No streams	No streams found in polygon (0 to 10 m/ha)
W	1	Low water	10 m/ha to 30 m/ha (low soil moisture influence)
W	2	Mod water	30 m/ha to 60 m/ha (moderate soil moisture influence)
W	3	High water	60 m/ha or greater (high soil moisture influence)
SLOPE:		Dry Interior:	
S	1	0 – 8%	
S	2	8 – 25%	(** aspect applies from this slope class on)
S	3	25 – 45%	
S	4	45 – 65%	
S	5	65 - 85%	
S	6	85 – 130%	
S	7	130 + %	
SF	f	Flat	slope class 1
SF	m	Moderate	slope classes 2 & 3
SF	s	steep	slope classes 4 & 5
SF	hs	Hyper-steep	slope classes 6 & 7
SFc	g	Gentle	slope classes 1 & 2
SF	vm	Very moderate	slope classes 3 & 4
SF	vs	Very steep	slope classes 5 & 6
ASPECT:			
As	0	No aspect	Aspect does not apply
As	1	Hot	91 to 235 degrees
As	2	Warm	236 to 290 degrees (actually 235.1 to 290)
As	3	Cool	291 to 90 degrees
ADJACENCY FEATURES: (50-m buffer around NP, NPBr, Rock, Alpine and OR polygons)			
Adj1	1	Adj to streams	buffers around NP and NPBr
Adj2	1	Adj to wetlands	buffers around NP and NPBr
Adj3	1	Adj to rock	buffers around Rock polygons
Adj4	1	Adj to alpine	buffers around Alpine polygons
Adj5	1	Adj to OR	buffers around Open Range polygons
Adj1+Adj2+Adj3+Adj4+Adj5 = 0			Not adjacent to any of these features
RIPARIAN BENCHES:			
Lakes (Calculated from perimeter of lakes)			
LB	1	present	0-5% slope adjacent to the lake, to a maximum distance of 100 m
LB_P	1	Low	between 5 and 20% of PEM polygon area
LB_P	2	Moderate	between 21 and 50% of PEM polygon area
LB_P	3	High	greater than 51% of the PEM polygon area
Wetlands (Calculated from perimeter of wetlands)			
WB	1	present	0-5% slope adjacent to the wetland, to a maximum distance of 100 m
WB_P	1	Low	between 5 and 20% of PEM polygon area
WB_P	2	Moderate	between 21 and 50% of PEM polygon area
WB_P	3	High	greater than 51% of the PEM polygon area

Stream Low Benches: (Calculated from double-line streams)			
SLB	1	present	0-5% slope adjacent to a double-line stream to a maximum distance of 100m
SLB_P	1	Low	between 5 and 20% of PEM polygon area
SLB_P	2	Moderate	between 21 and 50% of PEM polygon area
SLB_P	3	High	greater than 51% of the PEM polygon area
Stream High Benches: (Calculated from double-line streams)			
SHB	1	present	- 0-5% slope from the edge of the SLB to a max distance of 500 m; or - 0 - 5% slope adjacent to a small rise up from the river's edge (a slope of 6-20% within 50 m from the river edge) to a max distance of 500 m
SHB_P	1	Low	between 5 and 20% of PEM polygon area
SHB_P	2	Moderate	between 21 and 50% of PEM polygon area
SHB_P	3	High	greater than 51% of the PEM polygon area
Stream Terraces: (Calculated from double-line streams)			
ST	1	present	- is a 0-10% slope adjacent to a large rise up from the river's edge – a greater than 20% slope within a 400 m distance – to a max distance of 1000 m; or - a 0-10% slope adjacent to a small rise up from the edge of the SLB or SHB – a greater than 6% slope within a 400 m distance – to a max distance of 1000m.
ST_P	1	Low	between 5 and 20% of PEM polygon area
ST_P	2	Moderate	between 21 and 50% of PEM polygon area
ST_P	3	High	greater than 51% of the PEM polygon area
GULLY BOTTOMS and GULLY BUFFERS: (on single-line streams)			
G	1	present	This is a 20-m buffer on either side of the single-line stream, and search for slope of 30% + (allows for flat-bottom gully and eliminates gully mouths)
G_P	1	Low	between 5 and 20% of PEM polygon area
G_P	2	Moderate	between 21 and 50% of PEM polygon area
G_P	3	High	greater than 51% of the PEM polygon area
GB	1	present	This is a 40-m buffer up the 30%+ slopes starting from edge of the gully bottom polygon (G)
GB_P	1	Low	between 5 and 20% of PEM polygon area
GB_P	2	Moderate	between 21 and 50% of PEM polygon area
GB_P	3	High	greater than 51% of the PEM polygon area
HILL TOPS and HILL BUFFERS (upper slope positions)**:**			
HT	1	present	Hill top is the largest outside contour line less than 1200 m in length and not a depression
HT_P	1	Low	between 5 and 20% of PEM polygon area
HT_P	2	Moderate	between 21 and 50% of PEM polygon area
HT_P	3	High	greater than 51% of the PEM polygon area
HB	1	present	40-m buffer where slope is > or = 20%, starts from edge of HT
HB_P	1	Low	between 5 and 20% of PEM polygon area
HB_P	2	Moderate	between 21 and 50% of PEM polygon area
HB_P	3	High	greater than 51% of the PEM polygon area
RIDGE TOPS and RIDGE BUFFERS (defines upper slope positions)**:**			
RT	1	present	20-m buffer around the ridge break line where slopes are > or = 30%
RT_P	1	Low	between 5 and 20% of PEM polygon area
RT_P	2	Moderate	between 21 and 50% of PEM polygon area
RT_P	3	High	greater than 51% of the PEM polygon area
RTL	1	present	Little ridge tops between 10 and 30% slopes – for Interior BEC subzones
RTL_P	1	Low	between 5 and 20% of PEM polygon area
RTL_P	2	Moderate	between 21 and 50% of PEM polygon area
RTL_P	3	High	greater than 51% of the PEM polygon area

RB	1	present	40-m buffer from edge of RT if slopes are > or = 30%
RB_P	1	Low	between 5 and 20% of PEM polygon area
RB_P	2	Moderate	between 21 and 50% of PEM polygon area
RB_P	3	High	greater than 51% of the PEM polygon area
TOES OF SLOPES			
ToS	1	present	Interface of >40% slopes above and <25% slopes below, that are within 100 m of each other
ToS_P	1	Low	between 5 and 20% of PEM polygon area
ToS_P	2	Moderate	between 21 and 50% of PEM polygon area
ToS_P	3	High	greater than 51% of the PEM polygon area
ELEVATION			
E	1		ESSFvc below 1520 m
E	2		ESSFvc between 1520 and 1680 m
E	3		ESSFvc above 1680 m
E	4		ESSFwc2 below 1440 m
E	5		ESSFwc2 between 1440 and 1770 m
E	6		ESSFwc2 above 1770 m
E	7		ESSFwc4 below 1580 m
E	8		ESSFwc4 between 1580 and 1720 m
E	9		ESSFwc4above 1720 m
E	10		ESSFwcw below 1700 m
E	11		ESSFwcw above 1700 m
TRIM 2 LANDFORM FEATURES: (These are assumed to be within a FC forested polygon and influence differently than the NP code)			
L1_P	1,2, or 3	Rock polygon	TRIM HB25400000
L2	1,2, or 3	Esker	TRIM HB10200000 (follows m/ha correlation like the Water calculation)
L3	1,2, or 3	Cliff/scarp	TRIM HB05650000 (follows m/ha correlation like the Water calculation)
L4_P	1,2, or 3	Slide	TRIM HB27900000
L5	1,2, or 3	Beaver dam	TRIM GA08450110 (follows m/ha correlation like the Water calculation)
L6_P	1,2, or 3	Flooded area	TRIM GB11350110
L7_P	1,2, or 3	Spring	TRIM
L8_P	1,2, or 3	Moraine	TRIM HB18700000
L9_P	1,2, or 3	Skree	TRIM HB26150000
L10_P	1,2, or 3	Avalanche	TRIM AVA
L11_P	1,2, or 3	Glacier	TRIM GD12300000
L12_P	1,2, or 3	Snow/ice	TRIM
L13	1,2, or 3	Ridge	TRIM HB06650100 (follows m/ha correlation like the Water calculation)
L14_P	1,2, or 3	Islands	TRIM GE14850000
L15_P	1,2, or 3	Sand Bars	TRIM GE25850000
L16_P	1,2, or 3	Pit	TRIM AG21550000
L17	1,2, or 3	Rock Bluffs	TRIM HB25000100 (follows m/ha correlation like the Water calculation)
L18_P	1,2, or 3	Depressions	TRIM
L19	1,2, or 3	Cliff drop off	TRIM HB05650100 (follows m/ha correlation like the Water calculation)
L20	1,2, or 3	Cliff drop off indefinite	TRIM HB05650200 (follows m/ha correlation like the Water calculation)
SOLAR RADIATION RANGES:			
SR	1		Full South-facing, no obstructions – Intensive solar radiation
SR	2		Warm aspects – east or west – moderate solar radiation
SR	3		Full North-facing, no variations – Cool solar radiation

BEDROCK TYPE (dominant bedrock type is assigned to the PEM polygon)				
BR	1	Rich	limestone, marble, calcareous sedimentary rocks; limestone, slate, siltstone, argillite; dolomitic carbonate rocks	
BR	2	Mod - rich	chert, siliceous argillite, siliciclastic rocks; volcanic, basalt; greenstone, greenschist metamorphic rocks; orthogneissic; paragneissic; undivided metamorphic	
BR	3	Moderate	mudstone, siltstone, shale fine clastic sedimentary rocks; mudstone/laminite fine clastic sedimentary rocks; undivided sedimentary rocks	
BR	4	Mod - poor	coarse clastic sedimentary rocks; conglomerate, coarse clastic sedimentary rocks; quartzite	
BR	5	Poor	Igneous (Intrusive) – i.e. granodiorite, quartz diorite, granite, gabbro diorite, monzonite	
BR	0	Undivided	Undivided – not useful – everything from volcanic, to sedimentary, to metamorphic, to intrusive	
SATELLITE IMAGERY:				
SA	1	Water		
SA	2	Snow or Ice	Snow, ice or glaciers – not present in this PEM project	
SA	3	Bare	Rock cliffs or talus slopes – undifferentiated; Exposed soil for various reasons: road way, landslide, river island, etc.	
SA	4	Forest	Coniferous and/or Deciduous mixes	
SA	5	Parkland Forest	Open coniferous forests with meadow pockets, at or within the parkland/alpine BEC subzones	
SA	6	Krummholtz	Alpine krummholtz – few upright trees	
SA	7	Decidous Shrub	Deciduous shrub patches with no or few upright trees	
SA	8	Grasslands	Upland gramminoid sites – including alpine grasslands	
SA	9	Heathlands	Alpine meadows dominated by heathers and junipers	
SA	10	Herbaceous meadows	Alpine forb-dominated meadows – verdant green	
FOREST COVER CHARACTERISTICS:				
Forest Cover Base Codes:				
NP	0	Forested	Forested stands	
NP	1	icefield		
NP	2	alpine		
NP	3	rock	50-m buffer around these polygons for adjacency searches	
NP	7	sand		
NP	9	clay bank		
NP	10	alpine forest		
NP	11	NPBr	50-m buffer around these polygons for adjacency searches	
NP	12	NP	50-m buffer around these polygons for adjacency searches	
NP	13	burn		
NP	15	lakes	Merge Forest Cover and TRIM lakes	
NP	18	Gravel Bar		
NP	25	River		
NP	35	wetlands	Merge Forest Cover and TRIM wetlands/depressions (TRIM marsh polygons are displayed within the wetland complexes.)	
NP	42	Clearing		
NP	50	Roads		
NP	54	Urban		

NP	60	hayfield				
NP	62	meadows				
NP	63	open range	50-m buffer around these polygons for adjacency searches			
NP	64	salt water				
NP	70	NTA	No typing available			
NPD		A	Alpine	NF_DESC	NSR	Cutblock
NPD		AF	Alpine forest	NF_DESC	NCBr	Cutblock Brush
NPD		U	Urban			
NPD	SWAMP		Swamp			
NPD	NPBr		Brush			
NPD	NP		Non-productive			

Disturbance History:			**Height:** (HCTL_PR – these classes were re-programmed in the VRI database)		
ACT_B	1	Past burn	HC	1	height class 1 = 0 to 10.4m
ACT_L	1	Logged	HC	2	10.5 to 19.4 m
		Burns are also recorded in Comp1, 2 or 3 of the VRI database	HC	3	19.5 to 28.4 m
			HC	4	28.5 to 37.4 m
Species: (Species codes vary: PLI or PL; ACT or AC; E or EP)			HC	5	37.5 to 46.4 m
Sp		SP1, SP2, or SP3	HC	6	46.5 to 55.4 m
SpL		lead species - SP1 only	HC	7	55.5 to 64.4 m
SpS		Second - SP2 only	HC	8	64.5 +
SpP		Primary – 1st or 2nd species	H	vs	Very short – classes 0 - 1
Sp1_Per		% cover for each species	H	s	Short - height class 2
Sp_Pure	p	Pure >95%	H	t	Tall - height classes 4+
Crown Closure: (CRNCL_PR – these classes were re-programmed in the VRI database)			**Age:** (AGECL_PR – these classes were re-programmed in the VRI database)		
CRN	0	Crown class 0-5%	AGE	1	1 – 20 years
CRN	1	6-15%	AGE	2	21 – 40 years
CRN	2	16-25%	AGE	3	41 – 60 years
CRN	3	26-35%	AGE	4	61 – 80 years
CRN	4	36-45%	AGE	5	81 – 100 years
CRN	5	46 – 55%	AGE	6	101 – 120 years
CRN	6	56-65%	AGE	7	121 – 140 years
CRN	7	66-75%	AGE	8	141 – 250 years
CRN	8	76-85%	AGE	9	250 + years
CRN	9	86-95%	A	m	Mature - age classes 3 to 9 (this is a younger age than other PEM projects due to the lesser fire history of the area; the younger mature age is a result of excessive water saturation in the soils)
CRN	10	96-100%			
CC	v	Very open – classes 0 – 1			
CC	o	Open – classes 2 – 3			
CC	c	Closed – classes 4+			

Other Information from the VRI Database:					
COMP1 COMP2 COMP3	B, SL, ST, HE, HF, HG, ES, GL, LA, RI, RP, RZ, PN, RT, BR, TA, TB, TC, TM	Non-forest descriptors – burn, shrub layer, herb layer, exposed soil, glacier, lake, river, road, rock bare rock, talus, Treed – broad, conifer, mixed.	BCLC_L1	N, U, V	
			BCLC_L2	L, N, T	
			BCLC_L3	A, U	

SOILMOIST1 SOILMOIST2 SOILMOIST3	1 to 8	Dry to wet soil moisture classes	BCLC_L4	EL, HE, HF, HG, RO, SI, SL, ST, TB, TC, TM
SOILNUTRRG	A to E	Poor to Rich nutrient classes	BCLC_L5	BP, BR. DE, LA, OP, PN, RI, RS, SP, UR
SHRUB_HT			SHRUBCWNCL	
			HERBCOVTYP	

BIOTERRAIN MAPPING FEATURES: (not used in this PEM Project)		
		Bioterrain mapping was not contracted as part of this project. There was no detriment to the accuracy of this PEM map due to the lack of this input layer.
SOIL DESCRIPTION: (not used in this PEM Project)		
		The digital soils map is too coarse to be of use in this project (scale of 1:1,000,000)

Post Processing to avoid Input database complications – Completed as a separate project			
TEM Structural Stage:			
TSS	3		Shrub (1 to 20 years) - corresponds to Structural Stage codes in DEITF manual
TSS	4		Pole/sapling (20 to 40 years)
TSS	5		Young (40 to 80 years)
TSS	6		Mature (80 to 240 years)
TSS	7		Old (240+ years)
		Optional Module:	Note structural stage 2 is missing since it must be applied after the ecosystem label has been ascribed. This is a post-processing module that may not have been requested by the Client.