

***Lillooet PEM Project Site Series Names, Codes and Descriptions
of the Revised Biogeoclimatic Classification System (D. Lloyd et. al, 2001-03)***

The Lillooet PEM project used the revised BEC classification system being completed by D. Lloyd, Regional Ecologist of the Kamloops Forest Region. The Bunchgrass subzones (BGxh3 and xw2) were revised by R. Coupé, Regional Ecologist of the Cariboo Forest Region. The following table outlines each site series in the new BEC classification that was mapped in this PEM project. Those site series that do not occur in the Lillooet District are not described. All site series numbers and letter codes are tentative and subject to change until they are approved by the RIC committee. The published descriptions of these revised classifications are not available for distribution at this time. The draft descriptions must be requested by Ray Coupé or Dennis Lloyd directly.

Letter codes are no longer recommended in these tables, other than the lumped non-forested ecosystem unit codes, unlike in the first two years of the project. The codes we suggested were not incorporated into the classification scheme provided by D. Lloyd, and the classification schemes have changed repeatedly over the three years of this project. This table reflects the latest classification scheme provided by D. Lloyd and leaves all naming responsibilities to D. Lloyd. We used the abbreviation “not reg’d” to indicate that the unit is not yet registered and approved by the Provincial Ecologist.

The following table also identifies which SIBEC values from the old BEC classification that should be applied for the new site series as an interim measure. After the new BEC classification is finalized and approved by RIC, new SIBEC values will be assigned to the site series for data analyses. SIBEC values are used to calculate growth and yield estimates for the operable forest land base, which leads to the calculation of annual allowable cuts.

In this PEM project, we did not endeavor to map out the seral stages of the ecosystem units. This is more easily and accurately dealt with as a post-mapping module using the forest species correlated with the predicted site series.

Elevational gradients were also not dealt with. In the first two years of the project, we identified the ESSF high elevation break at which the patterns of ecosystem distribution changed. However, due to the changes in the BEC linework provided by D. Lloyd, in particular the parkland boundary lines, we stopped doing this. Dennis attempted to capture this same pattern shift, so we left it to his authority and responsibility.

Bgc_Zone	Bgc_Subzone	Bgc_Yrt	Bgc_Phase	Site_S	SiteMC_S	Site Series Name	TypeSMR	Region	SIBEC Correlation	Description of Site Series Distinguishing Characteristics
BG	xh	2		01 01YS 01MS	Not reg'd	Big sage - Bluebunch wheatgrass; Big sage – Needle & thread grass; Big sage – Bluebunch wheatgrass & Needle & thread grass	mesic	Kam	n/a	Zonal positions in the grasslands. Slopes <25% on all aspects. This unit is also on toes of slopes and adjacent to the stream edge unit. This is also the unit on north-facing slopes in the grasslands in which <i>Poa secunda</i> is a dominant grass species.
BG	xh	2		92 93	Not reg'd	Bluebunch wheatgrass – Selaginella; Big sage – Bluebunch wheatgrass	subxeric - submesic	Kam	n/a	Very dry, sparsely-vegetated grasslands. Typically on or adjacent to rocky outcrops. Selaginella densa is an indicator species. Ridge tops and very steep slopes within Open Range polygons are used to pull out this unit.
BG	xh	2		94	Not reg'd	Py – Red three awn	mesic - submesic	Kam	Use BGxh2 03	East, south and west-facing slopes in the grasslands on moderate to steep slopes. May occasionally have a few Py trees that are able to establish despite the heat and winds. These are also the gentle ridge top ecosystem units, such as eskers or shoulder ridges.
BG	xh	2		95	Not reg'd	Rough fescue – Bluebunch wheatgrass	subxeric - submesic	Kam	n/a	Not in the Lillooet TSA.
BG	xh	2		02	Not reg'd	Py – Bluebunch wheatgrass	mesic - submesic	Kam	Use BGxh2 04	Forested unit on zonal positions or south-facing slopes. This unit is common on toes of slopes due to the sandy soils in the District. Islands of forest stands do occur in the BG subzone.
BG	xh	2		03	Not reg'd	Fd Py – Snowberry	submesic - subhygric	Kam	Use BGxh2 07	Forested unit on north-facing slopes and gullies. Forest stands are common on north slopes of gullies.
BG	xh	2		04	Not reg'd	Act – Snowberry – Dogwood	subhygric - hygric	Kam	Use BGxh2 07	Forested unit along stream edges or on fluvial benches
<p>We were instructed by D. Lloyd (2001 and 2002) to use the new classification created by Ray Coupé, Regional Ecologist of the former Cariboo Region. D. Lloyd has since changed the classification for this BEC subzone significantly. Due to the large discrepancies between the two classifications, we are sticking with the original instructions in order to avoid having to completely re-do this knowledge table.</p>										
BG	xh	3		01	Not reg'd	Bluebunch wheatgrass – Big sagebrush	mesic	Kam	n/a	Mesic grassland on flat to gentle slopes of all aspects; also occurs on the E and NW slopes that transition between south and north aspects.
BG	xh	3		80 81	Not reg'd	Big Sagebrush – Prickly pear cactus; Saskatoon – Douglas fir	subxeric	Kam	n/a	Xeric grasslands over very shallow soils such as cliffs, rock outcrops or talus.

BG	xh	3		82 83a/b	Not reg'd	Big sagebrush – Sand dropsee; Bluebunch wheatgrass – Prairie sagewort	subxeric - submesic	Kam	n/a	Dry grasslands on steep south-facing slopes; soils may be eroding; generally these are sparsely-vegetated slopes.
BG	xh	3		84 85 83a	Not reg'd	Sand dropseed – Indian ricegrass; Needle-and-thread grass – Cladonia cariosa; Bluebunch wheatgrass – Prairie sagewort	submesic	Kam	n/a	Dry grasslands on gentle to moderate south-facing slopes; may include some 83a ecosystem units (stable slope phase); may also include some 85 units that occur over fine textured soils which are not common in the Lillooet TSA.
BG	xh	3		87	Not reg'd	Bluebunch wheatgrass – Round-leaved alumroot;	mesic - subhygric	Kam	n/a	Moderate to steep north slopes.
BG	xh	3		53 86 50	Not reg'd	Water birch – Prairie rose Snowberry – Juniper Wolf-willow – Giant wildrye	mesic - subhygric	Kam	n/a	Shrub or grassland units that are slightly moist toes of slopes, stream edges or gully bottoms. The 50 unit is sporadic and unpredictable – cannot be mapped as its own unit. Satellite imagery is not sufficiently refined to separate these units.
BG	xh	3		52 88	Not reg'd	Snowberry – Kentucky bluegrass Short-awned porcupinegrass – Small- flowered penstemon	subhygric	Kam	n/a	Shrub or grassland units on fluvial terraces; these often intermix and are not separated in the satellite imagery.
BG	xh	3		51	Not reg'd	Prairie Rose – Snowberry	subhygric - hygric	Kam	n/a	This unit is lumped with the WS wetland shrub community since it exists in these same locations.
BG	xh	3		03	Not reg'd	Fd - Snowberry - Bluebunch wheatgrass	mesic	Kam	Use BGxh2 04	Forested mesic – level to gently sloping, slightly elevated benches above major streams; Also the south and west-facing slopes that are forested
BG	xh	3		02	Not reg'd	Fd - Rocky Mountain juniper	subxeric	Kam	Use BGxh2 03	Forested dry, shallow soils – steep north- and northeast-facing slopes and on shaded toe slopes.
BG	xh	3		04	Not reg'd	Douglas-fir - Prairie rose - Saskatoon	subhygric	Kam	Use BGxh2 07	Forested mid to toe slope positions in moist, steep sided gullies with permanent or ephemeral streams. Due to intermittent seepage and their shade topographic position these sites have a subhygric moisture regime.
BG	xh	3		05 06	Not reg'd	Black Cottonwood - Prairie rose – Snowberry; Black Cottonwood – Sandbar willow - dogbane	subhygric - hygric	Kam	Use BGxh2 07	Forested active floodplains – the 05 is a mid bench while the 06 is a low bench ecosystem unit.
BG	xw	2		01	Not reg'd	Bluebunch wheatgrass – Needle-and- thread grass;	mesic	Kam	n/a	Mesic grassland on flat to gentle slopes of all aspects; also occurs on the E and NW slopes that transition between south and north aspects.
BG	xw	2		80		Saskatoon – Prairie sagewort	xeric	Kam	n/a	Cliff-face ecosystems growing on pockets of soil where possible. This unit has been lumped with the RT unit since it is not possible to map them separately from the rock.

BG	xw	2		81 82	Not reg'd	Big Sage – Prairie sagewort; Small-flowered ricegrass - Lichen	subxeric	Kam	n/a	Xeric grasslands over very shallow soils such as cliffs, rock outcrops or talus.
BG	xw	2		83	Not reg'd	Prairie sagewort – Bluebunch wheatgrass	subxeric - submesic	Kam	n/a	Dry grasslands on steep south-facing slopes; vegetation varies from moderate cover to sparse; on steeper slopes, soils may be eroding.
BG	xw	2		84		Needle-and-thread grass – Sand dropseed	submesic	Kam	n/a	Dry grasslands on moderate south-facing slopes; vegetation is denser than the 83 unit but still sparser than the 01 unit.
BG	xw	2		86 85	Not reg'd	Bluebunch wheatgrass – Nodding onion; Spreading needlegrass – Old man's whiskers	mesic - subhygric	Kam	n/a	Moderate to steep north slopes. The 85 unit is slightly drier due to being higher in elevation and receiving some sunlight wrapping around the hill sides.
BG	xw	2		87	Not reg'd	Short-awned porcupinegrass - Lemonweed	mesic - subhygric	Kam	n/a	Shrub or grassland units that are slightly moist toes of slopes, stream edges or gully bottoms.
BG	xw	2		88	Not reg'd	Spreading needlegrass – Northern bedstraw	subhygric	Kam	n/a	Grassland unit that occurs in depression pockets that are not true wetlands.
BG	xw	2		50	Not reg'd	Willow – Kentucky bluegrass	subhygric - hygric	Kam	n/a	This unit is lumped with the WS wetland shrub community since it exists in these same locations.
BG	xw	2		04	Not reg'd	Fd - Pinegrass – Red-stemmed feathermoss	mesic	Kam	Use BGxw2 05	Forested mesic – level to gently sloping north-facing slopes.
BG	xw	2		02	Not reg'd	Fd – Spike-like goldenrod – Pelt lichen	subxeric	Kam	Use BGxw2 03	Forested dry, shallow soils – very steep north- facing slopes; also on the vertical bands of the NE and NW slopes transitioning to the south aspect. If there is any forest on a south-facing slope, it will be this unit.
BG	xw	2		03	Not reg'd	Fd – Rocky Mountain juniper – Bluebunch wheatgrass	mesic - submesic	Kam	Use BGxh2 05	Forested moderate to steep north-facing slopes
BG	xw	2		05	Not reg'd	Fd – Douglas maple	subhygric	Kam	Use BGxh2 05	Forested – moist units typically in steep sided gullies with permanent or ephemeral streams. Due to intermittent seepage and their shade topographic position these sites have a subhygric moisture regime.
BG	xw	2		06	Not reg'd	Trembling aspen - Snowberry	subhygric	Kam	Use BGxh2 07	Forested moist depressions dominated by At.
BG	xw	2		07	Not reg'd	Black Cottonwood – Wild rose – Snowberry	subhygric - hygric	Kam	Use BGxh2 07	Forested active floodplains.
PP	xh	2		01 01YS	Not reg'd	Py - Bluebunch wheatgrass – Fescue; Py Fd – Kentucky bluegrass	mesic	Kam	Use PPxh2 01	Not in Lillooet TSA. The Fescue is a species common to the Merritt area.

PP	xh	2		05 05YS 05MS 06	Not reg'd	Py - Bluebunch wheatgrass; Py Fd - Bluebunch wheatgrass – kinnickinick; Py Fd - Bluebunch wheatgrass – Needlegrass; Py Fd - Big sage - Bluebunch wheatgrass	submesic - mesic	Kam	Use PPxh2 04	Zonal positions in this subzone – slopes <25% on all aspects. The 06 is the forested unit that typically surrounds grasslands on flat slopes – wheatgrass and big sage encroach into these stands for a distance of about 50 metres.
PP	xh	2		02	Not reg'd	FdPy - Bluebunch wheatgrass - Selaginella	subxeric	Kam	Use PPxh2 02	Rocky outcrops with forests (10% or denser cover). These occur on large ridge tops, hyper-steep slopes, or adjacent to cliffs or talus slopes.
PP	xh	2		03	Not reg'd	Py - Red three-awn	subxeric - submesic	Kam	Use PPxh2 03	Steep, south-facing slopes with open canopies; Py is the dominant tree species. These can be open crown closures or NP stands. Grasses and herbs have a very sparse cover. There is considerable bare ground in this unit. These are also the gentle ridge top ecosystem units, such as eskers or shoulder ridges.
PP	xh	2		04	Not reg'd	PyFd – Saskatoon – Rose	submesic	Kam	Use PPxh2 04	Moderate to steep, south-facing (E, S, SW) slopes with closed canopies. There is a low to moderate cover of Bluebunch wheatgrass and with other grass species, no mosses. Saskatoon, snowberry and Oregon grape are the dominant shrubs.
PP	xh	2		07a	Not reg'd	Fd - Feathermoss	mesic - submesic	Kam	Use PPxh2 01	Steep to hyper-steep, north-facing slopes with closed or open canopies. The tree boles are far apart but their canopies often intersect. The ground cover is a dense carpet of moss and rock with few herbs or shrubs.
PP	xh	2		07	Not reg'd	Fd - Pinegrass - Feathermoss	mesic - subhygric	Kam	Use PPxh2 01	Moderate to steep, north-facing slopes with closed canopies. Feathermoss intermixed with the pinegrass is an indicator of this unit. Dense pinegrass, moderate mosses (feathermoss, heron's bill moss, electrified cat's tail), aster and soopalalie.
PP	xh	2		08	Not reg'd	FdPy - Snowberry - Saskatoon	subhygric	Kam	Use PPxh2 06	This unit includes the slightly moist toes of slopes and transitions to stream edges as well as the stream edge units.
PP	xh	2		09	Not reg'd	Act - Water birch	subhygric - hygric	Kam	Use PPxh2 07	This unit includes a wide range, from the fluvial benches along rivers or large streams to the horsetail flats along slow-moving streams or around wetlands. These can be productive forests or unproductive forests depending on the quantity of water and whether it is flowing or stagnant.
PP	xh	2		92	GX	Selaginella grassland	xeric - subxeric	Kam		Very dry, sparsely-vegetated grasslands. Typically on or adjacent to rocky outcrops. Selaginella densa is an indicator species. Ridge tops and very steep slopes within Open Range polygons are used to pull out this unit.
PP	xh	2		93 & 91	GD	Big sage – Bluebunch wheatgrass	subxeric - submesic	Kam		Flat to moderate slopes dominated by grasses and sagebrush. Generally south-facing, but occasionally wrapping around to northerly aspects. These are the OR (open range) polygons from Forest Cover.
IDF	xw			01	DJ	Fd – Juniper – Bluebunch wheatgrass	mesic	Kam	Use Cariboo SIBEC	Zonal positions in this subzone – slopes <25% on all aspects.

									values	
IDF	xw			02	PW	FdPy- Bluebunch wheatgrass - Pinegrass	subxeric	Kam	Use Cariboo SIBEC values	Rocky outcrops with forests (10% or denser cover). These occur on large ridge tops, hyper-steep slopes, or adjacent to cliffs or talus slopes. The classification scheme now omits this unit, but it does exist regularly in this subzone.
IDF	xw			03	DS	FdPy – Western Snowberry - Bluebunch wheatgrass	subxeric - submesic	Kam	Use Cariboo SIBEC values	Steep, south-facing slopes with open canopies; Py is the dominant tree species. These can be open crown closures or NP stands. Grasses and herbs have a very sparse cover. There is considerable bare ground in this unit. These are also the gentle ridge top ecosystem units, such as eskers or shoulder ridges.
IDF	xw			04	DW	FdPy - Bluebunch wheatgrass - Balsamroot	submesic	Kam	Use Cariboo SIBEC values	Moderate to steep, south-facing (E, S, SW) slopes with closed canopies. There is a low to moderate cover of Bluebunch wheatgrass and with other grass species, no mosses. Saskatoon, snowberry and Oregon grape are the dominant shrubs.
IDF	xw			05a	DF	Fd - Feathermoss	mesic - submesic	Kam	Use Cariboo SIBEC values	Steep to hyper-steep, north-facing slopes with closed or open canopies. The tree boles are far apart but their canopies often intersect. The ground cover is a dense carpet of moss and rock with few herbs or shrubs.
IDF	xw			05	DF	Fd – Feathermoss	mesic - subhygic	Kam	Use Cariboo SIBEC values	Moderate to steep, north-facing slopes with closed canopies. Feathermoss intermixed with the pinegrass is an indicator of this unit. Dense pinegrass, moderate mosses (feathermoss, heron's bill moss, electrified cat's tail), aster and soopalalie.
IDF	xw			06	SB	Sxw – Water birch	subhygic	Kam	Use Cariboo SIBEC values	This unit includes the slightly moist toes of slopes and transitions to stream edges as well as the stream edge units.
IDF	xw			07	SR	Sxw – Prickly rose - Coltsfoot	subhygic - hygic	Kam	Use Cariboo SIBEC values	This unit includes the horsetail flats along slow-moving streams or around wetlands. These can be productive forests or unproductive forests depending on the quantity of water and whether it is flowing or stagnant.
IDF	xw				GX	Selaginella grassland	xeric - subxeric	Kam		Very dry, sparsely-vegetated grasslands. Typically on or adjacent to rocky outcrops. Selaginella densa is an indicator species. Ridge tops and very steep slopes within Open Range polygons are used to pull out this unit.
IDF	xw				GD	Big sage – Bluebunch wheatgrass	subxeric - submesic	Kam		Flat to moderate slopes dominated by grasses and sagebrush. Generally south-facing, but occasionally wrapping around to northerly aspects. These are the OR (open range) polygons from Forest Cover.
This subzone was mapped during the first year of the project, but subsequently removed by D. Lloyd during the final year of the project. As such, we removed it from the KB's.										
IDF	xm			01		Fd – Pinegrass – Feathermoss	mesic	Kam	Use	Zonal positions in this subzone – slopes <25% on all aspects.

									Cariboo SIBEC values	
IDF	xm			02		Bluebunch wheatgrass – Penstemon	subxeric	Kam	Use Cariboo SIBEC values	Rocky outcrops with forests (10% or denser cover). These occur on large ridge tops, hyper-steep slopes, or adjacent to cliffs or talus slopes. The classification scheme now omits this unit, but it does exist regularly in this subzone.
IDF	xm			03		Fd – Juniper Cladonia	subxeric - submesic	Kam	Use Cariboo SIBEC values	Steep, south-facing slopes with open canopies; Py is the dominant tree species. These can be open crown closures or NP stands. Grasses and herbs have a very sparse cover. There is considerable bare ground in this unit. These are also the gentle ridge top ecosystem units, such as eskers or shoulder ridges.
IDF	xm			04		Fd – Bluebunch wheatgrass – Pasture Sage	submesic	Kam	Use Cariboo SIBEC values	Moderate to steep, south-facing (E, S, SW) slopes with closed canopies. There is a low to moderate cover of Bluebunch wheatgrass and with other grass species, no mosses. Saskatoon, snowberry and Oregon grape are the dominant shrubs.
IDF	xm			05a		Fd – Feathermoss – Stepmoss	mesic - submesic	Kam	Use Cariboo SIBEC values	Steep to hyper-steep, north-facing slopes with closed or open canopies. The tree boles are far apart but their canopies often intersect. The ground cover is a dense carpet of moss and rock with few herbs or shrubs.
IDF	xm			05		Fd – Feathermoss – Stepmoss	mesic - subhygric	Kam	Use Cariboo SIBEC values	Moderate to steep, north-facing slopes with closed canopies. Feathermoss intermixed with the pinegrass is an indicator of this unit. Dense pinegrass, moderate mosses (feathermoss, heron’s bill moss, electrified cat’s tail), aster and soopalalie.
IDF	xm			07 06 08		Fd – Prickly rose – Sarsaparilla Fd – Ricegrass – Feathermoss	subhygric	Kam	Use Cariboo SIBEC values	This unit includes the slightly moist toes of slopes and transitions to stream edges as well as the stream edge units.
IDF	xm			09		??	subhygric - hygric	Kam	Use Cariboo SIBEC values	This unit includes a wide range, from the fluvial benches along rivers or large streams to the horsetail flats along slow-moving streams or around wetlands. These can be productive forests or unproductive forests depending on the quantity of water and whether it is flowing or stagnant.
IDF	xm				GX	Selaginella grassland	xeric - subxeric	Kam		Very dry, sparsely-vegetated grasslands. Typically on or adjacent to rocky outcrops. Selaginella densa is an indicator species. Ridge tops and very steep slopes within Open Range polygons are used to pull out this unit.
IDF	xm				GD	Big sage – Bluebunch wheatgrass	subxeric - submesic	Kam		Flat to moderate slopes dominated by grasses and sagebrush. Generally south-facing, but occasionally wrapping around to northerly aspects. These are the OR (open range) polygons from Forest Cover.

The classification scheme for this subzone was changed by D. Lloyd et. al. during the PEM project.

IDF	xh	2 & 2	a	01 06	Not reg'd	FdPy - Pinegrass – Feathermoss; and Fd – Snowberry - Pinegrass	mesic	Kam	Use IDFhx2 01	Zonal positions in this subzone – slopes <25% on all aspects.
IDF	xh	2 & 2	a	02	Not reg'd	Selaginella – Bluebunch wheatgrass (formerly FdPy - Bluebunch wheatgrass - Rough fescue)	subxeric	Kam	Use IDFhx2 02	Rocky outcrops with forests (10% or denser cover). These occur on large ridge tops, hyper-steep slopes, or adjacent to cliffs or talus slopes. The classification scheme now omits this unit, but it does exist regularly in this subzone.
IDF	xh	2 & 2	a	03	Not reg'd	FdPy - Bluebunch wheatgrass - Balsamroot	subxeric - submesic	Kam	Use IDFhx2 03	Steep, south-facing slopes with open canopies; Py is the dominant tree species. These can be open crown closures or NP stands. Grasses and herbs have a very sparse cover. There is considerable bare ground in this unit. These are also the gentle ridge top ecosystem units, such as eskers or shoulder ridges.
IDF	xh	2 & 2	a	04	Not reg'd	FdPy - Bluebunch wheatgrass - Pinegrass	submesic	Kam	Use IDFhx2 04	Moderate to steep, south-facing (E, S, SW) slopes with closed canopies. There is a low to moderate cover of Bluebunch wheatgrass and with other grass species, no mosses. Saskatoon, snowberry and Oregon grape are the dominant shrubs.
IDF	xh	2 & 2	a	05	Not reg'd	Fd - Fescue	submesic	Kam	Use IDFhx2 05	Does not exist in the Lillooet TSA. Fescue is common in the Merritt area.
IDF	xh	2 & 2	a	07a	Not reg'd	Fd – Feathermoss (hyper-steep north slopes)	mesic - submesic	Kam	Use IDFhx2 06	Steep to hyper-steep, north-facing slopes with closed or open canopies. The tree boles are far apart but their canopies often intersect. The ground cover is a dense carpet of moss and rock with few herbs or shrubs.
IDF	xh	2 & 2	a	07	Not reg'd	Fd – Feathermoss	mesic - subhygic	Kam	Use IDFhx2 06	Moderate to steep, north-facing slopes with closed canopies. Feathermoss intermixed with the pinegrass is an indicator of this unit. Dense pinegrass, mod- dense mosses (feathermoss, heron’s bill moss, electrified cat’s tail), aster and soopalalie.
IDF	xh	2 & 2	a	08	Not reg'd	CwFd - Dogwood	subhygic	Kam	Use IDFhx2 07	This is a wide range unit. It includes the slightly moist toes of slopes and transitions to stream edges. It includes the stream edge units. It also includes the fluvial benches along rivers or large streams. According to the classification system, there are no horsetail flats in this subzone.
IDF	xh	2 & 2	a		GX	Selaginella grassland	xeric - subxeric	Kam		Very dry, sparsely-vegetated grasslands. Typically on or adjacent to rocky outcrops. Selaginella densa is an indicator species. Ridge tops and very steep slopes within Open Range polygons are used to pull out this unit.
IDF	xh	2 & 2	a		GD	Big sage – Bluebunch wheatgrass	subxeric - submesic	Kam		Flat to moderate slopes dominated by grasses and sagebrush. Generally south- facing, but occasionally wrapping around to northerly aspects. These are the OR (open range) polygons from Forest Cover.
The classification scheme for this subzone was changed by D. Lloyd et. al. during the PEM project.										

IDF	xh	3		01	Not reg'd	FdPy - Pinegrass	mesic	Kam	Use IDFxh2 01	Zonal positions in this subzone – slopes <25% on all aspects.
IDF	xh	3		02	Not reg'd	Fd – Penstemon - Selaginella	subxeric	Kam	Use IDFxh2 02	Rocky outcrops with forests (10% or denser cover). These occur on large ridge tops, hyper-steep slopes, or adjacent to cliffs or talus slopes. The classification scheme now omits this unit, but it does exist regularly in this subzone.
IDF	xh	3		03	Not reg'd	FdPy – Saskatoon - Penstemon	subxeric - submesic	Kam	Use IDFxh2 03	Steep, south-facing slopes with open canopies; Py is the dominant tree species. These can be open crown closures or NP stands. Grasses and herbs have a very sparse cover. There is considerable bare ground in this unit. These are also the gentle ridge top ecosystem units, such as eskers or shoulder ridges.
IDF	xh	3		04	Not reg'd	FdPy - Bluebunch wheatgrass	submesic	Kam	Use IDFxh2 04	Moderate to steep, south-facing (E, S, SW) slopes with closed canopies. There is a low to moderate cover of Bluebunch wheatgrass and with other grass species, no mosses. Saskatoon, snowberry and Oregon grape are the dominant shrubs.
IDF	xh	3		05a	Not reg'd	Fd – Feathermoss – hyper-steep north slopes	mesic - submesic	Kam	Use IDFxh2 05	Steep to hyper-steep, north-facing slopes with closed or open canopies. The tree boles are far apart but their canopies often intersect. The ground cover is a dense carpet of moss and rock with few herbs or shrubs.
IDF	xh	3		05	Not reg'd	Fd – Feathermoss – moderate north slope	mesic - subhygric	Kam	Use IDFxh2 05	Moderate to steep, north-facing slopes with closed canopies. Feathermoss intermixed with the pinegrass is an indicator of this unit. Dense pinegrass, moderate mosses (feathermoss, heron's bill moss, electrified cat's tail), aster and soopalalie.
IDF	xh	3		06	Not reg'd	Act - Fd - Dogwood – Gooseberry; and CwFd – Goodyera	subhygric - hygric	Kam	Use IDFxh2 07	This is a wide range unit. It includes the slightly moist toes of slopes and transitions to stream edges. It includes the stream edge units. It also includes the fluvial benches along rivers or large streams. According to the classification system, there are no horsetail flats in this subzone.
IDF	xh	3		93	GX	Selaginella grassland	xeric - subxeric	Kam		Very dry, sparsely-vegetated grasslands. Typically on or adjacent to rocky outcrops. Selaginella densa is an indicator species. Ridge tops and very steep slopes within Open Range polygons are used to pull out this unit.
IDF	xh	3		921 & 92	GD	Big sage – Bluebunch wheatgrass	subxeric - submesic	Kam		Flat to moderate slopes dominated by grasses and sagebrush. Generally south-facing, but occasionally wrapping around to northerly aspects. These are the OR (open range) polygons from Forest Cover.
The classification scheme for this subzone was changed by D. Lloyd et. al. during the PEM project.										
IDF	dk	1 & 1	a	01 05 06	Not reg'd	FdPl - Pinegrass – Feathermoss; Fd – Juniper – Wheatgrass; Fd – Pinegrass – Yarrow	mesic - submesic	Kam	Use IDFdK1 01	Zonal positions of flat to gentle (25%) slopes on all aspects. The 05 unit exists on zonal positions near the IDFxh boundaries (<5% mosses, no twinflower, more kinnickinnick). The 06 (with significant grouseberry) exists on zonal positions near the MS boundaries. The 01 is the most common unit on zonal positions in this subzone. There is a narrow vertical band of 01 on NE and NW slopes – used solar insolation to try to capture this change.

IDF	dk	1 & 1	a	02	Not reg'd	Fd – Juniper - Penstemon	subxeric	Kam	Use IDFdk1 02	Rocky outcrops with forests (10% or denser cover). These occur on large ridge tops, hyper-steep slopes, or adjacent to cliffs or talus slopes.
IDF	dk	1 & 1	a	03	Not reg'd	Fd - Snowberry - Bluebunch wheatgrass	subxeric - submesic	Kam	Use IDFdk1 02	Steep, south-facing slopes with open canopies; often have a Py component to the stand. These can be open crown closures or NP stands. These are also the gentle ridge top ecosystem units, such as eskers or shoulder ridges.
IDF	dk	1 & 1	a	04	Not reg'd	Fd – Bluebunch wheatgrass - Pinegrass	submesic	Kam	Use IDFdk1 03	Moderate to steep, south-facing (E, S, SW) slopes with closed canopies. Dense pinegrass, bluebunch wheatgrass, no mosses, few soopalalie and Saskatoon, near MS boundaries more falsebox and aster.
IDF	dk	1 & 1	a	07a	Not reg'd	Fd (Pl) – Feathermoss – Hyper-steep north slopes	mesic - submesic	Kam	Use IDFdk1 04	Steep to hyper-steep, north-facing slopes with closed or open canopies. The tree boles are far apart but their canopies often intersect. The ground cover is a dense carpet of moss and rock with few herbs or shrubs.
IDF	dk	1 & 1	a	07	Not reg'd	Fd(Pl) – Pinegrass – Feathermoss	mesic - subhygric	Kam	Use IDFdk1 04	Moderate to steep, north-facing slopes with closed canopies. Feathermoss intermixed with the pinegrass is an indicator of this unit. Dense pinegrass, moderate mosses (feathermoss, heron's bill moss, electrified cat's tail), aster and soopalalie.
IDF	dk	1 & 1	a	08	Not reg'd	SxFd - Gooseberry - Feathermoss	subhygric	Kam	Use IDFdk1 05	This is a wide range unit. It includes the slightly moist toes of slopes and transitions to stream edges. It includes the stream edge units. It also includes the fluvial benches along rivers or large streams.
IDF	dk	1 & 1	a	09	Not reg'd	Sxw – Horsetail	subhygric - hygric	Kam	Use IDFdk1 06	Horsetail flats along slow-moving streams or around wetlands. Can be productive forests or unproductive forests depending on the quantity of water and whether it is flowing or stagnant. Horsetail >25%, bunchberry, arnica, aster, gooseberry, dogwood, sweet cicely, etc.
IDF	dk	1 & 1	a	10	Not reg'd	Se-Pl-Trappers tea-Bog birch	Hygric - subhydric	Kam		Not found in the Lillooet TSA. Unproductive swamp forests.
IDF	dk	1 & 1	a	92	GX	Selaginella grassland	xeric - subxeric	Kam		Very dry, sparsely-vegetated grasslands. Typically on or adjacent to rocky outcrops. Selaginella densa is an indicator species. Ridge tops and very steep slopes within Open Range polygons are used to pull out this unit.
IDF	dk	1 & 1	a	93& 96	GD	Big sage – Bluebunch wheatgrass	subxeric - submesic	Kam		Flat to moderate slopes dominated by grasses and sagebrush. Generally south-facing, but occasionally wrapping around to northerly aspects. These are the OR (open range) polygons from Forest Cover.
The classification scheme for this subzone was changed by D. Lloyd et. al. during the PEM project.										
IDF	dk	2		Not		FdPl - Pinegrass – Twinflower;	mesic -	Kam	Use	Zonal positions of flat to gentle (25%) slopes on all aspects. The 05 (with

				reg'd		Pl – Grouseberry – Pinegrass	submesic		IDFdk2 01	significant grouseberry) exists on zonal positions near the MS boundaries. The 01 is the most common unit on zonal positions in this subzone.
IDF	dk	2		Not reg'd		Fd Py – Juniper - Penstemon	subxeric	Kam	Use IDFdk2 02	Rocky outcrops with forests (10% or denser cover). These occur on large ridge tops, hyper-steep slopes, or adjacent to cliffs or talus slopes.
IDF	dk	2		Not reg'd		Fd Py - Bluebunch wheatgrass – Pinegrass	subxeric - submesic	Kam	Use IDFdk2 02	Steep, south-facing slopes with open canopies; has a strong Py component to the stand. These can be open crown closures or NP stands. These are also the gentle ridge top ecosystem units, such as eskers or shoulder ridges.
IDF	dk	2		Not reg'd		Fd Py – Pinegrass	submesic	Kam	Use IDFdk2 03	Moderate to steep, south-facing (E, S, SW) slopes with closed canopies. Dense pinegrass, bluebunch wheatgrass, pockets of mosses, few soopalalie and Saskatoon, near MS boundaries more falsebox and aster.
IDF	dk	2		Not reg'd		Fd (Pl) – Feathermoss – Hyper-steep north slopes	mesic - submesic	Kam	Use IDFdk2 04	Steep to hyper-steep, north-facing slopes with closed or open canopies. The tree boles are far apart but their canopies often intersect. The ground cover is a dense carpet of moss and rock with few herbs or shrubs.
IDF	dk	2		Not reg'd		Sxw Fd – Feathermoss; FdPl – Pinegrass – Feathermoss	mesic - subhygric	Kam	Use IDFdk2 04	Moderate to steep, north-facing slopes with closed canopies. Feathermoss intermixed with the pinegrass is an indicator of this unit. Dense pinegrass, moderate mosses (feathermoss, heron's bill moss, electrified cat's tail), aster and soopalalie.
IDF	dk	2		Not reg'd		Pl – Alder – Twinflower	subhygric	Kam	Use IDFdk2 05	The slightly moist toes of slopes and transitions to stream edges.
IDF	dk	2		09 11		Sxw – Dogwood – Gooseberry Sxw – Devil's Club	subhygric	Kam	Use IDFdk1 05	Stream edge units dominated by shrubs. Very productive ecosystem units.
IDF	dk	2		10		Sxw – Dogwood – Oakfern	subhygric - hygric	Kam	Use IDFdk2 05	Fluvial benches along rivers or major streams. These ecosystems are subject to flooding throughout growing season. The moss layer is absent due to flood scouring; the herb layer is moderate; the shrub layer is very dense.
IDF	dk	2		12		Sxw – Horsetail	subhygric - hygric	Kam	Use IDFdk2 06	Horsetail flats along slow-moving streams or around wetlands. Can be productive forests or unproductive forests depending on the quantity of water and whether it is flowing or stagnant. Horsetail >25%, bunchberry, arnica, aster, gooseberry, dogwood, sweet cicely, etc.
IDF	dk	2		13		Sxw – Soft sedge	Hygric - subhydric	Kam	Use IDFdk2 07	Unproductive swamp forests. Open canopy of stunted Spruce growing on hummocks. These are typically along the fringes of wetlands or they occupy depression areas.
IDF	dk	2		92	GX	Selaginella grassland	xeric - subxeric	Kam		Very dry, sparsely-vegetated grasslands. Typically on or adjacent to rocky outcrops. Selaginella densa is an indicator species. Ridge tops and very steep slopes within Open Range polygons are used to pull out this unit.

IDF	dk	2		93& 96	GD	Big sage – Bluebunch wheatgrass	subxeric - submesic	Kam		Flat to moderate slopes dominated by grasses and sagebrush. Generally south-facing, but occasionally wrapping around to northerly aspects. These are the OR (open range) polygons from Forest Cover.
We used the Cariboo Site Series Field Guide for this subzone. Please refer to the Cariboo SIBEC values.										
IDF	dk	3		01	LP	FdPI – Pinegrass – Feathermoss	mesic	Kam	Use IDFdk3 01	Zonal positions in this subzone – slopes <25% on all aspects.
IDF	dk	3		03	DJ	Fd – Juniper – Peltigera	subxeric	Kam	Use IDFdk3 02	Rocky outcrops with forests (10% or denser cover). These occur on large ridge tops, hyper-steep slopes, or adjacent to cliffs or talus slopes. The classification scheme now omits this unit, but it does exist regularly in this subzone.
IDF	dk	3		02	DK	Fd – Juniper – Kinnikinnick	subxeric - submesic	Kam	Use IDFdk3 03	Steep, south-facing slopes with open canopies. These can be open crown closures or NP stands. Grasses and herbs have a very sparse cover. There is considerable bare ground in this unit. These are also the gentle ridge top ecosystem units, such as eskers or shoulder ridges.
IDF	dk	3		04	DW	Fd – Bluebunch wheatgrass – Needlegrass	submesic	Kam	Use IDFdk3 04	Moderate to steep, south-facing (E, S, SW) slopes with closed canopies. There is a moderate cover of Bluebunch wheatgrass and with other grass species, few to no mosses. Saskatoon, snowberry and Oregon grape are the dominant shrubs.
IDF	dk	3		05a	DM	Fd – Feathermoss – Stepmoss	mesic - subhygric	Kam	Use IDFdk3 05	Steep to hyper-steep, north-facing slopes with closed or open canopies. The tree boles are far apart but their canopies often intersect. The ground cover is a dense carpet of moss and rock with few herbs or shrubs.
IDF	dk	3		05	DM	Fd – Feathermoss – Stepmoss	mesic - subhygric	Kam	Use IDFdk3 05	Moderate to steep, north-facing slopes with closed canopies. Feathermoss intermixed with the pinegrass is an indicator of this unit. Dense pinegrass, moderate mosses (feathermoss, heron’s bill moss, electrified cat’s tail), aster and soopalalie.
IDF	dk	3		06	DP	Fd – Pinegrass – Aster	mesic - subhygric	Kam	Use IDFdk3 06	N/a - does not occur in the Lillooet District
IDF	dk	3		08 07	SS SR	SxwFd – Prickly rose – Sarsaparilla SxwFd – Prickly rose – Sedge	subhygric	Kam	Use IDFdk3 07	This is a wide range unit. It includes the slightly moist toes of slopes and transitions to stream edges. It includes the stream edge units. It also includes the fluvial benches along rivers or large streams.
IDF	dk	3		09	SH	Sxw – Horsetail – Glow moss	subhygric - hygric	Kam	Use IDFdk3 09	Horsetail flats along slow-moving streams or around wetlands. Can be productive forests or unproductive forests depending on the quantity of water and whether it is flowing or stagnant.
IDF	dk	3			GD	Big sage – Bluebunch wheatgrass	subxeric - submesic	Kam		Flat to moderate slopes dominated by grasses and sagebrush. Generally south-facing, but occasionally wrapping around to northerly aspects. These are the OR (open range) polygons from Forest Cover.

The classification scheme for this subzone was changed by D. Lloyd et. al. during the PEM project.										
IDF	dk	5		01	Not reg'd	Fd P1 - Wintergreen - Feathermoss	mesic	Kam	Use IDFdk2 01	Zonal positions in this subzone – slopes <25% on all aspects.
IDF	dk	5		02	Not reg'd	Fd Juniper - Penstemon	subxeric	Kam	Use IDFdk2 02	Rocky outcrops with forests (10% or denser cover). These occur on large ridge tops, hyper-steep slopes, or adjacent to cliffs or talus slopes. The classification scheme now omits this unit, but it does exist regularly in this subzone.
IDF	dk	5		03	Not reg'd	FdPy - Bluebunch wheatgrass	subxeric - submesic	Kam	Use IDFdk2 02	Steep, south-facing slopes with open canopies. These can be open crown closures or NP stands. Grasses and herbs have a very sparse cover. There is considerable bare ground in this unit. These are also the gentle ridge top ecosystem units, such as eskers or shoulder ridges.
IDF	dk	5		04	Not reg'd	FdP1 - Pinegrass	submesic	Kam	Use IDFdk2 03	Moderate to steep, south-facing (E, S, SW) slopes with closed canopies. There is a moderate cover of Bluebunch wheatgrass and with other grass species, few to no mosses. Saskatoon, snowberry and Oregon grape are the dominant shrubs.
IDF	dk	5		05a	Not reg'd	FdCw – Feathermoss – hyper-steep north slopes	mesic - submesic	Kam	Use IDFdk2 04	Steep to hyper-steep, north-facing slopes with closed or open canopies. The tree boles are far apart but their canopies often intersect. The ground cover is a dense carpet of moss and rock with few herbs or shrubs.
IDF	dk	5		05	Not reg'd	FdCw - Feathermoss	mesic - subhygric	Kam	Use IDFdk2 04	Moderate to steep, north-facing slopes with closed canopies. Feathermoss intermixed with the pinegrass is an indicator of this unit. Dense pinegrass, moderate mosses (feathermoss, heron's bill moss, electrified cat's tail), aster and soopalalie.
IDF	dk	5		06	Not reg'd	SxFd - Dogwood – Gooseberry	subhygric	Kam	Use IDFdk2 05	This is a wide range unit. It includes the slightly moist toes of slopes and transitions to stream edges. It includes the stream edge units. It also includes the fluvial benches along rivers or large streams.
IDF	dk	5		07	Not reg'd	Sx – Horsetail & Sx - Soft-leaved sedge	subhygric - hygric	Kam	Use IDFdk2 06	Horsetail flats along slow-moving streams or around wetlands. Can be productive forests or unproductive forests depending on the quantity of water and whether it is flowing or stagnant.
IDF	dk	5		92	GX	Selaginella grassland	xeric - subxeric	Kam		Very dry, sparsely-vegetated grasslands. Typically on or adjacent to rocky outcrops. Selaginella densa is an indicator species. Ridge tops and very steep slopes within Open Range polygons are used to pull out this unit.
IDF	dk	5		93& 96	GD	Big sage – Bluebunch wheatgrass	subxeric - submesic	Kam		Flat to moderate slopes dominated by grasses and sagebrush. Generally south-facing, but occasionally wrapping around to northerly aspects. These are the OR (open range) polygons from Forest Cover.
IDF	dk	5			HM	Herbaceous Meadow (at the Parkland Boundary)	mesic - subhygric	Kam	n/a	These are moist meadows primarily of herbs and grasses. They may also be alder swales in cases of low avalanche activity. They occur at the toes of avalanche paths in this subzone. Many of the species are consistent with alpine species. These are

										very rich grizzly forage areas.
The classification scheme for this subzone was changed by D. Lloyd et. al. during the PEM project.										
IDF	ww	2		01 04	Not reg'd	Fd Ep – Fairy bells Fd – Snowberry – Moss	mesic - submesic	Kam	Use IDFww 01	Zonal positions of flat to gentle (25%) slopes on all aspects. The 04 unit also occupies zonal positions at higher elevations or the transitions onto northern slopes.
IDF	ww	2		02	Not reg'd	Fd Py – Falsebox – Penstemon (The forested rock outcrop unit and ridge/hill top unit have been combined here)	subxeric - submesic	Kam	Use IDFww 02	Rocky outcrops with forests (10% or denser cover). These occur on large ridge tops, hyper-steep slopes, or adjacent to cliffs or talus slopes. These are also the steep, south-facing slopes with open canopies; has a strong Py component to the stand. These can be open crown closures or NP stands. These are also the gentle ridge top ecosystem units, such as eskers or shoulder ridges.
IDF	ww	2		03	Not reg'd	Fd Py – Pinegrass	submesic	Kam	Use IDFww 03	Moderate to steep, south-facing (E, S, SW) slopes with closed canopies. Dense pinegrass, bluebunch wheatgrass, pockets of mosses, few soopalalie and Saskatoon, near MS boundaries more falsebox and aster.
IDF	ww	2		05a	Not reg'd	Fd Cw – Pinegrass (Hyper-steep north slopes)	mesic - submesic	Kam	Use IDFww 05	Steep to hyper-steep, north-facing slopes with closed or open canopies. The tree boles are far apart but their canopies often intersect. The ground cover is a dense carpet of moss and rock with few herbs or shrubs.
IDF	ww	2		05	Not reg'd	Fd Cw – Pinegrass	mesic - subhygric	Kam	Use IDFww 05	Moderate to steep, north-facing slopes with closed canopies. Feathermoss intermixed with the pinegrass is an indicator of this unit. Dense pinegrass, moderate mosses (feathermoss, heron's bill moss, electrified cat's tail), aster and soopalalie.
IDF	ww	2		06a 06b 06c	Not reg'd	Fd Cw – Red osier dogwood – Thimbleberry	subhygric	Kam	Use IDFww 06	The slightly moist toes of slopes and transitions to stream edges. Toes of slopes are consistent in this subzone unlike other IDF's. Also includes the stream edge units dominated by shrubs. Very productive ecosystem units.
IDF	ww	2		07 08 09	Not reg'd	High-bench floodplain Cw Ep; Mid-bench Act Fd Cw – Red osier dogwood – Sarsaparilla; Mid-bench Sx Act – Red osier dogwood – Devil's club	subhygric - hygric	Kam	Use IDFww 06	Fluvial benches along rivers or major streams. These ecosystems are subject to flooding throughout growing season. The moss layer is absent due to flood scouring; the herb layer is moderate; the shrub layer is very dense.
IDF	ww	2		10a 10b	Not reg'd	Cw – Devil's club - Ladyfern	subhygric - hygric	Kam	Use IDFww 06	Horsetail flats along slow-moving streams or high benches back from large streams or rivers. These are productive forests with fresh water movement.
IDF	ww	2		11	Not reg'd	Cw – Skunk cabbage	Hygric - subhygric	Kam	Use IDFww 07	Unproductive swamp forests. May be open or closed canopies of stunted Spruce growing on hummocks. These are typically along the fringes of wetlands or they occupy depression areas.
IDF	ww	2		92	GX	Selaginella grassland	xeric - subxeric	Kam		Very dry, sparsely-vegetated grasslands. Typically on or adjacent to rocky outcrops. Selaginella densa is an indicator species. Ridge tops and very steep

										slopes within Open Range polygons are used to pull out this unit.
IDF	ww	2		93& 96	GD	Big sage – Bluebunch wheatgrass	subxeric - submesic	Kam		Flat to moderate slopes dominated by grasses and sagebrush. Generally south-facing, but occasionally wrapping around to northerly aspects. These are the OR (open range) polygons from Forest Cover.
IDF	ww	2			HM	Herbaceous Meadow (at the Parkland Boundary)	mesic - subhygric	Kam	n/a	These are moist meadows primarily of herbs and grasses. They may also be alder swales in cases of low avalanche activity. They occur at the toes of avalanche paths in this subzone. Many of the species are consistent with alpine species. These are very rich grizzly forage areas.
<p>This was an unusual BEC subzone. It was classified as CWHms1 in the old Legacy BEC map, and was not re-checked by D. Lloyd during their BEC revision project. We found no correlation between the ecosystem units on the ground to the Vancouver Field Guide for CWHms1. Instead, the ecosystem units followed a very similar pattern of development as the IDFww2. Therefore, we adapted the IDFww2 KB for this subzone and created the following ecosystem units for mapping purposes. D. Lloyd will change these names as he sees fit.</p>										
CWH	ms	1		01	Not reg'd	Fd Ep – Fairy bells	mesic - submesic	Kam	Use IDFww 01	Zonal positions of flat to gentle (25%) slopes on all aspects. The 04 unit also occupies zonal positions at higher elevations or the transitions onto northern slopes.
CWH	ms	1		02	Not reg'd	Fd Py – Falsebox – Penstemon (The forested rock outcrop unit and ridge/hill top unit have been combined here)	subxeric - submesic	Kam	Use IDFww 02	Rocky outcrops with forests (10% or denser cover). These occur on large ridge tops, hyper-steep slopes, or adjacent to cliffs or talus slopes. These are also the steep, south-facing slopes with open canopies; has a strong Py component to the stand. These can be open crown closures or NP stands. These are also the gentle ridge top ecosystem units, such as eskers or shoulder ridges.
CWH	ms	1		03	Not reg'd	Fd Py – Pinegrass	submesic	Kam	Use IDFww 03	Moderate to steep, south-facing (E, S, SW) slopes with closed canopies. Dense pinegrass, bluebunch wheatgrass, pockets of mosses, few soopalalie and Saskatoon, near MS boundaries more falsebox and aster.
CWH	ms	1		05a	Not reg'd	Fd Cw – Pinegrass (Hyper-steep north slopes)	mesic - submesic	Kam	Use IDFww 05	Steep to hyper-steep, north-facing slopes with closed or open canopies. The tree boles are far apart but their canopies often intersect. The ground cover is a dense carpet of moss and rock with few herbs or shrubs.
CWH	ms	1		05	Not reg'd	Fd Cw – Pinegrass	mesic - subhygric	Kam	Use IDFww 05	Moderate to steep, north-facing slopes with closed canopies. Feathermoss intermixed with the pinegrass is an indicator of this unit. Dense pinegrass, moderate dense mosses (feathermoss, heron's bill moss, electrified cat's tail), aster and soopalalie.
CWH	ms	1		06	Not reg'd	Fd Cw – Red osier dogwood – Thimbleberry	subhygric	Kam	Use IDFww 06	The slightly moist toes of slopes and transitions to stream edges. Toes of slopes are consistent in this subzone unlike other IDF's. Also includes the stream edge units dominated by shrubs. Very productive ecosystem units. Also includes the fluvial benches along rivers or major streams that are subject to flooding throughout growing season. The moss layer is absent due to flood scouring; the herb layer is moderate; the shrub layer is very dense.
CWH	ms	1		10	Not	Cw – Devil's club - Ladyfern	subhygric -	Kam	Use	Horsetail flats along slow-moving streams or high benches back from large streams

					reg'd		hygric		IDFww 06	or rivers. These are productive forests with fresh water movement.
CWH	ms	1		11	Not reg'd	Cw – Skunk cabbage	Hygric - subhygric	Kam	Use IDFww 07	Unproductive swamp forests. May be open or closed canopies of stunted Spruce growing on hummocks. These are typically along the fringes of wetlands or they occupy depression areas.
CWH	ms	1			HM	Herbaceous Meadow (at the Parkland Boundary)	mesic - subhygric	Kam	n/a	These are moist meadows primarily of herbs and grasses. They may also be alder swales in cases of low avalanche activity. They occur at the toes of avalanche paths in this subzone. Many of the species are consistent with alpine species. These are very rich grizzly forage areas.
MS	dc	1		01	Not reg'd	Sxw - Wintergreen - Feathermoss	mesic	Kam	Use MSdc 01	Zonal positions of flat to gentle (25%) slopes on all aspects.
MS	dc	1		02	Not reg'd	FdPI - Juniper	subseric - submesic	Kam	Use MSdc 02	Rocky outcrops with forests (10% or denser cover). These occur on large ridge tops, hyper-steep slopes, or adjacent to cliffs or talus slopes. The typical 03 unit has also been lumped into this category by D. Lloyd. These are the steep, south-facing slopes with open canopies; PI is a strong component to the stand. These can be open crown closures or NP stands. These are also the gentle ridge top ecosystem units, such as eskers or shoulder ridges.
MS	dc	1		03	Not reg'd	PI - Spirea - Pinegrass	submesic	Kam	Use MSdc 03	Moderate to steep, south-facing (E, S, SW) slopes with closed canopies. Moderate covers of Pinegrass and Falsebox with a low cover of mosses are indicators of this unit.
MS	dc	1		04	Not reg'd	PI – Falsebox – Showy Aster	submesic	Kam	Use MSdc 03	This is the classic west-facing slope seen in all of the MS subzones of the Lillooet TSA. Falsebox, kinnickinick and soopalalie combined are more pronounced with generally less pinegrass than the south-facing units. This unit is the transition between the south- and north-facing slopes.
MS	dc	1		05a	Not reg'd	B1 – Feathermoss	mesic - submesic	Kam	Use MSdc 01	Steep to hyper-steep, north-facing slopes with closed or open canopies. The tree boles are far apart but their canopies often intersect. The ground cover is a dense carpet of moss and rock with few herbs or shrubs.
MS	dc	1		05	Not reg'd	B1 – Rhododendron - Feathermoss	mesic - subhygric	Kam	Use MSdc 01	Moderate to steep, north-facing slopes with closed canopies. Dense feathermoss is the indicator of this unit. Pinegrass is moderate to sparse unlike in the IDF's. Alder and Huckleberry are common shrubs. Rhododendron may appear on these slopes near the ESSF boundary.
MS	dc	1		06	Not reg'd	Sxw – Gooseberry	subhygric	Kam	Use MSdc 04	The stream edge units that are dominated by moist shrubs, such as gooseberry, dogwood and twinberry. These two units intermingle with each other and as such are difficult to separate. These are very productive ecosystem units. This unit also includes fluvial benches along rivers or major streams. These ecosystems are subject to flooding throughout growing season. The moss layer is absent due to flood scouring; the herb layer is moderate; the shrub layer is very dense.

MS	dc	1		07	Not reg'd	Sxw - Horsetail	subhygric - hygric	Kam	Use MSdc 04	Horsetail flats along slow-moving streams or around wetlands. Can be productive forests or unproductive forests depending on the quantity of water and whether it is flowing or stagnant.
MS	dc	1		GJ		Juniper – Pinegrass Grassland	subxeric - submesic	Kam	n/a	Although no grasslands have been included in the classification for this subzone, the GJ unit is included in the KB's in the event that an OR polygon shows up somewhere. Pocket grasslands on upper, south-facing slopes usually associated with hill tops or ridge tops. Juniper patches are prominent and easily recognizable from a distance. These occur primarily near the lower boundary of the MS subzone.
MS	dc	1			HM	Herbaceous Meadow (at the Parkland Boundary)	mesic - subhygric	Kam	n/a	These are moist meadows primarily of herbs and grasses. They may also be alder swales in cases of low avalanche activity. They occur at the toes of avalanche paths in this subzone. Many of the species are consistent with alpine species. These are very rich grizzly forage areas.
MS	dc	2		01	Not reg'd	Sxw - Wintergreen - Feathermoss	mesic	Kam	Use MSdc 01	Zonal positions of flat to gentle (25%) slopes on all aspects.
MS	dc	2		02	Not reg'd	FdPI - Juniper	subxeric	Kam	Use MSdc 02	Rocky outcrops with forests (10% or denser cover). These occur on large ridge tops, hyper-steep slopes, or adjacent to cliffs or talus slopes.
MS	dc	2		03 & 05	Not reg'd	Fd PI – Bluebunch wheatgrass Fd – Arrowleaf balsamroot – Pinegrass	subxeric - submesic	Kam	Use MSdc 02	The 03 is the steep, south-facing slopes with open canopies; PI is a strong component to the stand. These can be open crown closures or NP stands. The 05's are generally the gentle ridge top ecosystem units, such as eskers or shoulder ridges
MS	dc	2		06	Not reg'd	PI – Spirea – Pinegrass	submesic	Kam	Use MSdc 03	Moderate to steep, south-facing (E, S, SW) slopes with closed canopies. Moderate covers of Pinegrass and Falsebox with a low cover of mosses are indicators of this unit.
MS	dc	2		04	Not reg'd	Fd – Falsebox	submesic	Kam	Use MSdc 03	This is the classic west-facing slope seen in all of the MS subzones of the Lillooet TSA. Falsebox, kinnickinick and soopalalie combined are more pronounced with generally less pinegrass than the south-facing units. This unit is the transition between the south- and north-facing slopes.
MS	dc	2		07a	Not reg'd	Sxw – Rhododendron – Feathermoss	mesic - subhygric	Kam	Use MSdc 01	Steep to hyper-steep, north-facing slopes with closed or open canopies. The tree boles are far apart but their canopies often intersect. The ground cover is a dense carpet of moss and rock with few herbs or shrubs.
MS	dc	2		07	Not reg'd	Sxw - Rhododendron	mesic - subhygric	Kam	Use MSdc 01	Moderate to steep, north-facing slopes with closed canopies. Dense feathermoss is the indicator of this unit. Pinegrass is moderate to sparse unlike in the IDF's. Alder and Huckleberry are common shrubs. Rhododendron may appear on these slopes near the ESSF boundary.
MS	dc	2		08	Not reg'd	Sxw - Gooseberry	subhygric	Kam	Use MSdc 04	The stream edge units that are dominated by moist shrubs, such as gooseberry, dogwood and twinberry. These two units intermingle with each other and as such

										are difficult to separate. These are very productive ecosystem units. This unit also includes fluvial benches along rivers or major streams. These ecosystems are subject to flooding throughout growing season. The moss layer is absent due to flood scouring; the herb layer is moderate; the shrub layer is very dense.
MS	dc	2	09	Not reg'd	Sxw - Horsetail	hygric	Kam	Use MSdc 04		Horsetail flats along slow-moving streams or around wetlands. Can be productive forests or unproductive forests depending on the quantity of water and whether it is flowing or stagnant.
MS	dc	2	GJ		Juniper – Pinegrass Grassland	subxeric - submesic	Kam	n/a		The Bluebunch wheatgrass – Arrowleaf balsamroot and the Juniper grassland units are lumped here since they usually intermix and cannot be separated in the PEM. Pocket grasslands on upper, south-facing slopes usually associated with hill tops or ridge tops. Juniper patches are prominent and easily recognizable from a distance. These occur primarily near the lower boundary of the MS subzone.
MS	dc	2		HM	Herbaceous Meadow (at the Parkland Boundary)	mesic - subhygric	Kam	n/a		These are moist meadows primarily of herbs and grasses. They may also be alder swales in cases of low avalanche activity. They occur at the toes of avalanche paths in this subzone. Many of the species are consistent with alpine species. These are very rich grizzly forage areas.
MS	dm	2	01	Not reg'd	Sxw – Falsebox – Feathermoss	mesic	Kam	Use MSdm 01		Zonal positions of flat to gentle (25%) slopes on all aspects.
MS	dm	2	02	Not reg'd	Juniper – Bluebunch wheatgrass	subxeric	Kam	Use MSdm 03		Rocky outcrops with forests (10% or denser cover). These occur on large ridge tops, hyper-steep slopes, or adjacent to cliffs or talus slopes.
MS	dm	2	03	Not reg'd	Falsebox – Polytrichum	subxeric - submesic	Kam	Use MSdm 03		Steep, south-facing slopes with open canopies; Pl is a strong component to the stand. These can be open crown closures or NP stands. These are also the gentle ridge top ecosystem units, such as eskers or shoulder ridges.
MS	dm	2	04	Not reg'd	Pl – Pinegrass – Grouseberry	submesic	Kam	Use MSdm 03		Moderate to steep, south-facing (E, S, SW) slopes with closed canopies. Moderate covers of Pinegrass and Falsebox with a low cover of mosses are indicators of this unit.
MS	dm	2	05	Not reg'd	Pl – Grouseberry – Pinegrass	submesic	Kam	Use MSdm 04		This is the classic west-facing slope seen in all of the MS subzones of the Lillooet TSA. Falsebox, kinnickinick and soopalalie combined are more pronounced with generally less pinegrass than the south-facing units. This unit is the transition between the south- and north-facing slopes.
MS	dm	2	06a	Not reg'd	Pl – Alder – Grouseberry (hyper-steep north slope)	mesic - subhygric	Kam	Use MSdm 04		Steep to hyper-steep, north-facing slopes with closed or open canopies. The tree boles are far apart but their canopies often intersect. The ground cover is a dense carpet of moss and rock with few herbs or shrubs.
MS	dm	2	06	Not reg'd	Pl – Alder – Grouseberry	mesic - subhygric	Kam	Use MSdm 04		Moderate to steep, north-facing slopes with closed canopies. Dense feathermoss is the indicator of this unit. Pinegrass is moderate to sparse unlike in the IDF's. Alder

										and Huckleberry are common shrubs. Rhododendron may appear on these slopes near the ESSF boundary.
MS	dm	2	07	Not reg'd	Sxw – Trapper's tea – Grouseberry	subhygric	Kam	Use MSdm 04	Not in the Lillooet TSA	
MS	dm	2	08	Not reg'd	Sxw – Gooseberry – Trapper's tea	subhygric	Kam	Use MSdm 05	Not in the Lillooet TSA	
MS	dm	2	09 10	Not reg'd	Sxw – Gooseberry – Alder Sxw – Gooseberry – Grouseberry	subhygric	Kam	Use MSdm 05	The slightly moist toes of slopes and transitions to stream edges. Toes of slopes are consistent in this subzone unlike in most IDF's.	
MS	dm	2	11 12	Not reg'd	Sxw – Gooseberry – Oakfern Sxw – Gooseberry – Devil's club	subhygric	Kam	Use MSdm 06	The stream edge units that are dominated by moist shrubs, such as gooseberry, dogwood and twinberry. These two units intermingle with each other and as such are difficult to separate. These are very productive ecosystem units. This unit also includes fluvial benches along rivers or major streams. These ecosystems are subject to flooding throughout growing season. The moss layer is absent due to flood scouring; the herb layer is moderate; the shrub layer is very dense.	
MS	dm	2	13	Not reg'd	Sxw – Horsetail – Leafy moss	hygric - subhydric	Kam	Use MSdm 07	Horsetail flats along slow-moving streams or around wetlands. Can be productive forests or unproductive forests depending on the quantity of water and whether it is flowing or stagnant.	
MS	dm	2	14 15	Not reg'd	Sxw – Bluejoint – Horsetail Sxw – Alder – Horsetail	hygric - hydric	Kam	Use MSdm 07	Unproductive swamp forests. Open canopy of stunted Spruce growing on hummocks. These are typically along the fringes of wetlands or they occupy depression areas.	
MS	dm	2	92	GX	Selaginella – Fragile Fern Grassland	xeric - subxeric	Kam	n/a	Very dry, sparsely-vegetated grasslands. Typically on or adjacent to rocky outcrops. Selaginella densa is an indicator species. Ridge tops and very steep slopes within Open Range polygons are used to pull out this unit.	
MS	dm	2	91	GD	Bluebunch wheatgrass – Junegrass Grassland	subxeric - submesic	Kam	n/a	Flat to moderate slopes dominated by grasses and a few herbs. Generally south-facing, but occasionally wrapping around to northerly aspects. These are the OR (open range) polygons from Forest Cover.	
MS	dm	2		HM	Herbaceous Meadow (at the Parkland Boundary)	mesic - subhygric	Kam	n/a	These are moist meadows primarily of herbs and grasses. They may also be alder swales in cases of low avalanche activity. They occur at the toes of avalanche paths in this subzone. Many of the species are consistent with alpine species. These are very rich grizzly forage areas.	
The classification scheme for this subzone was changed by D. Lloyd et. al. in the final year of the PEM project.										
We used the same KB for MS xk and MS xk3. Field checks showed no difference in the ecosystems in both areas. The MS xk3 produced for 2002 has been changed significantly for 2003 and is now missing several ecosystem units. The MS xk classification is more reflective of the species in the ground plots. The original MS xk3 descriptions are displayed in turquoise below each ecosystem unit.										
MS	xk		01	Not	Pl – Pinegrass – Lupine	mesic -	Kam	Use MSxk	Zonal positions of flat to gentle (25%) slopes on all aspects.	

				01	reg'd	FdPI - Pinegrass - Twinflower	submesic		01	(01 & 04 were lumped previously by D. Lloyd)
MS	xk			02	Not reg'd	Fd PI – Juniper – Penstemon – Stonecrop Fd - Juniper - Kinnickinnik	subxeric	Kam	Use MSxk 02	Rocky outcrops with forests (10% or denser cover). These occur on large ridge tops, hyper-steep slopes, or adjacent to cliffs or talus slopes.
MS	xk			03	Not reg'd	PI – Juniper – Grouseberry FdPI - Juniper - Pinegrass	subxeric - submesic	Kam	Use MSxk 02	Steep, south-facing slopes with open canopies. These can be open crown closures or NP stands. These are also the gentle ridge top ecosystem units, such as eskers or shoulder ridges.
MS	xk			04	Not reg'd	Fd PI – Pinegrass – Arnica	submesic	Kam	Use MSxk 05	Moderate to steep, south-facing (E, S, SW) slopes with closed canopies. Dense pinegrass, moderate arnica, sparse mosses. Shrubs are denser than in the IDF's, but falsebox and kinnickinick are sparse on these south slopes.
MS	xk			05	Not reg'd	Fd PI – Pinegrass – Grouseberry	mesic - submesic	Kam	Use MSxk 05	This is the classic west-facing slope seen in all of the MS subzones of the Lillooet TSA. Falsebox, kinnickinick and soopalalie combined are more pronounced with generally less pinegrass than the south-facing units. This unit is the transition between the south- and north-facing slopes.
MS	xk			06a	Not reg'd	PI – Alder – Feathermoss (hypersteep north unit) FdSxw – Feathermoss (hyper-steep North)	mesic - submesic	Kam	Use MSxk 06	Steep to hyper-steep, north-facing slopes with closed or open canopies. The tree boles are far apart but their canopies often intersect. The ground cover is a dense carpet of moss and rock with few herbs or shrubs.
MS	xk			06 07	Not reg'd	PI – Grouseberry – Feathermoss PI – Alder – Feathermoss FdSxw - Alnus - Feathermoss	mesic - subhygic	Kam	Use MSxk 06	Moderate to steep, north-facing slopes with closed canopies. Dense feathermoss is the indicator of this unit. Pinegrass is moderate to sparse unlike in the IDF's. Soopalalie, spirea and alder are common shrubs. Rhododendron appears on these slopes near the ESSF boundaries.
MS	xk			08	Not reg'd	PI – Falsebox – Lupine	subhygic	Kam	Use MSxk 07	The slightly moist toes of slopes and transitions to stream edges. Toes of slopes are consistent in this subzone unlike in most IDF's. Since this unit is typically a very narrow band alongside the stream-edge unit and seldom is large enough to form its own polygon, it has been lumped with the 11 unit below.
MS	xk			09 10	Not reg'd	Sxw – Trapper's tea – Grouseberry; Sxw – Trappers tea - Valeriana	subhygic - hygic	Kam	Use MSxk 07	Not in the Lillooet TSA. Trapper's tea is common in the Merritt area.
MS	xk			11	Not reg'd	Sxw – Gooseberry – Grouseberry Sxw - Gooseberry	subhygic - hygic	Kam	Use MSxk 08	The stream edge units that are dominated by moist shrubs, such as gooseberry and twinberry. Very productive ecosystem units. This unit also includes fluvial benches along rivers or major streams. These ecosystems are subject to flooding throughout growing season. The moss layer is absent due to flood scouring; the herb layer is moderate; the shrub layer is very

										dense.
MS	xk			12 07	Not reg'd	Sxw – Horsetail – Leafy moss Sxw - Horsetail	subhygric - hygric	Kam	Use MSxk 09	Horsetail flats along slow-moving streams or around wetlands. Can be productive forests or unproductive forests depending on the quantity of water and whether it is flowing or stagnant.
MS	xk			13	Not reg'd	Sxw (Pl) – Bluejoint – Sedge	hygric - subhydric	Kam	Use MSxk 09	Unproductive swamp forests. Open canopy of stunted Spruce growing on hummocks. These are typically along the fringes of wetlands or they occupy depression areas.
MS	xk			92 91	GJ	Juniper – Bluebunch wheatgrass Was formerly the 91 unit	subxeric - submesic	Kam	n/a	Pocket grasslands on upper, south-facing slopes usually associated with hill tops or ridge tops. Juniper patches are prominent and easily recognizable from a distance. Big sage occurs at lower elevations in this subzone, but only rarely exists higher up.
MS	xk			93	GD	Bluebunch wheatgrass - Junegrass 91 – Fescue (not in Lillooet)	submesic - mesic	Kam	n/a	Flat to moderate slopes dominated by grasses and a few herbs. Generally south-facing, but occasionally wrapping around to northerly aspects. These are the OR (open range) polygons from Forest Cover.
MS	xk				HM	Herbaceous Meadow (at the Parkland Boundary)	mesic - subhygric	Kam	n/a	These are moist meadows primarily of herbs and grasses. They may also be alder swales in cases of low avalanche activity. They occur at the toes of avalanche paths in this subzone. Many of the species are consistent with alpine species. These are very rich grizzly forage areas.
The Kamloops classification for this subzone is very rough and sparse. We separated the north and south slopes for the purposes of this PEM map. The classification key did not have ecosystem unit names, so we created the following ones. These may be changed by D. Lloyd in his final BEC classification.										
MS	xv	2		01	Not reg'd	Pl – Crowberry – Feathermoss	mesic	Kam	Use Cariboo MSxv 01	Zonal positions of flat to gentle (25%) slopes on all aspects.
MS	xv	2		03	Not reg'd	Pl – Kinnikinnick – Juniper	subxeric	Kam	Use Cariboo MSxv 02	Rocky outcrops with forests (10% or denser cover). These occur on large ridge tops, hyper-steep slopes, or adjacent to cliffs or talus slopes. Steep, south-facing slopes with open canopies. These can be open crown closures or NP stands. These are also the gentle ridge top ecosystem units, such as eskers or shoulder ridges and hill tops. Glaciofluvial terraces dominated by Pl and have a significant component of dry lichens.
MS	xv	2		04	Not reg'd	Pl - Pinegrass – Kinnikinnick	submesic	Kam	Use Cariboo MSxv 03	Note, this unit is on both south and north slopes according to D. Lloyd (2001) Moderate to steep, south and west-facing slopes with closed canopies. The south slopes have denser pinegrass and generally fewer shrubs. Whereas, the west slopes have denser falsebox, kinnikinnick and soopalalie with generally less pinegrass.

MS	xv	2		04a	Not reg'd	Pl - Pinegrass – Kinnikinnick	submesic	Kam	Use Cariboo MSxv 03	Moderate to steep, north-facing slopes with closed canopies. Dense feathermoss is the indicator of this unit. Pinegrass is moderate to sparse unlike in the IDF's. Soopalalie, spirea and alder are common shrubs. Rhododendron appears on these slopes near the ESSF boundaries.
MS	xv	2		04b	Not reg'd	Pl - Pinegrass – Kinnikinnick	submesic	Kam	Use Cariboo MSxv 03	Steep to hyper-steep, north-facing slopes with closed or open canopies. The tree boles are far apart but their canopies often intersect. The ground cover is a dense carpet of moss and rock with few herbs or shrubs.
MS	xv	2		06	Not reg'd	Pl – Twinflower – Stepmoss	mesic - subhygric	Kam	Use Cariboo MSxv 05	The slightly moist toes of slopes, transitions to stream edges and moist flats around wetland complexes. This unit is very similar to the zonal in vegetation composition except for the significant presence of Stepmoss that distinguishes this unit. Soil tests will verify that it is indeed moister than zonals.
MS	xv	2		07	Not reg'd	Sxw - Crowberry - Glow moss	subhygric	Kam	Use Cariboo MSxv 06	The stream edge unit dominated by moist shrubs. This is also the ecosystem unit that grows in cold-air drainages. This unit also includes fluvial benches along rivers or major streams. These ecosystems are subject to flooding throughout growing season. The moss layer is absent due to flood scouring; the herb layer is moderate; the shrub layer is very dense.
MS	xv	2		08 10	Not reg'd	Sxw - Horsetail – Crowberry & Sxw - Willow - Glow moss (not found in this subzone)	hygric	Kam	Use Cariboo MSxv 06	Horsetail flats along slow-moving streams or around wetlands. Can be productive forests or unproductive forests depending on the quantity of water and whether it is flowing or stagnant. Unproductive swamp forests. Open canopy of stunted Spruce growing on hummocks. These are typically along the fringes of wetlands or they occupy depression areas.
MS	xv	2			GJ	Juniper – Kinnikinnick Grassland	subxeric - submesic	Kam	n/a	Pocket grasslands on upper, south-facing slopes usually associated with hill tops or ridge tops. Juniper patches are prominent and easily recognizable from a distance. These occur primarily near the lower boundary of the MS subzone.
MS	xv	2			HM	Herbaceous Meadow (at the Parkland Boundary)	mesic - subhygric	Kam	n/a	These are moist meadows primarily of herbs and grasses. They may also be alder swales in cases of low avalanche activity. They occur at the toes of avalanche paths in this subzone. Many of the species are consistent with alpine species. These are very rich grizzly forage areas.
MS	mw			01	Not reg'd	Bl Ba – False azalea – Bunchberry	mesic	Kam	See Vancouver Field Guide – no SIBEC values provided in Provincial	Zonal positions of flat to gentle (25%) slopes on all aspects.
MS	mw			02	Not reg'd	Kinnikinnick – Rock moss	subxeric	Kam		Rocky outcrops with forests (10% or denser cover). These occur on large ridge tops, hyper-steep slopes, or adjacent to cliffs or talus slopes.
MS	mw			03	Not reg'd	Fd – Falsebox – Pinegrass	submesic	Kam		Moderate to steep, south-facing (E, S, SW) slopes with closed canopies. Moderate covers of Pinegrass and Falsebox with a low cover of mosses are indicators of this

								list	unit.
MS	mw		04	Not reg'd	Pl – Grouseberry	subxeric - submesic	Kam		Steep, south-facing slopes with open canopies; Pl is a strong component to the stand. These can be open or closed stands, or NP stands. These are also the gentle ridge top ecosystem units, such as eskers or shoulder ridges.
MS	mw		05	Not reg'd	FdBl – Black huckleberry – Falsebox	submesic	Kam		This is the classic west-facing slope seen in all of the MS subzones of the Lillooet TSA. Falsebox, kinnickinick and huckleberry combined are more pronounced. Pinegrass may or may not be present. This unit is the transition between the south- and north-facing slopes. We also found this unit at the toes of active colluvial slopes (even south-facing). However, the disturbance factor likely resulted in this unit being the pioneer community before the normal ecosystem unit can develop.
MS	mw		06a	Not reg'd	Bl – Feathermoss (hyper-steep north slopes)	mesic - subhygic	Kam		Steep to hyper-steep, north-facing slopes with closed or open canopies. The tree boles are far apart but their canopies often intersect. The ground cover is a dense carpet of moss and rock with few herbs or shrubs.
MS	mw		06	Not reg'd	Bl – White-flowered rhododendron	mesic - subhygic	Kam		Moderate to steep, north-facing slopes with closed canopies. Dense feathermoss is the indicator of this unit. Rhododendron, Falsebox and Huckleberry are common shrubs.
MS	mw		07	Not reg'd	BlBa – Black gooseberry – Sitka valerian	subhygic	Kam		The slightly moist toes of slopes and transitions to stream edges. Toes of slopes are consistent in this subzone unlike in most IDF's.
MS	mw		08	Not reg'd	SxwBl – Devil's club – Lady fern	subhygic - hygic	Kam		The stream edge units that are dominated by moist shrubs, such as Gooseberry and Devil's club. Very productive ecosystem units. This unit also includes fluvial benches along rivers or major streams. These ecosystems are subject to flooding throughout growing season. The moss layer is absent due to flood scouring; the herb layer is moderate; the shrub layer is very dense.
MS	mw		09	Not reg'd	Sxw – Horsetail	hygic - subhygic	Kam		Horsetail flats along slow-moving streams or around wetlands. Can be productive forests or unproductive forests depending on the quantity of water and whether it is flowing or stagnant.
MS	mw				No grasslands in this subzone				
MS	mw			HM	Herbaceous Meadow (at the Parkland Boundary)	mesic - subhygic	Kam	n/a	These are moist meadows primarily of herbs and grasses. They may also be alder swales in cases of low avalanche activity. They occur at the toes of avalanche paths in this subzone. Many of the species are consistent with alpine species. These are very rich grizzly forage areas.
ESSF	dc	2	01	Not reg'd	Bl – Rhododendron – Feathermoss	mesic	Kam	Use ESSFdc2 01	Zonal positions of flat to gentle (25%) slopes on all aspects.
ESSF	dc	2	02	Not	Juniper – Penstemon	subxeric	Kam	Use	Rocky outcrops with forests (10% or denser cover). These occur on large ridge

					reg'd				ESSFdc2 03	tops, hyper-steep slopes, or adjacent to cliffs or talus slopes.
ESSF	dc	2		03	Not reg'd	Pl Bl – Rhododendron – Heron's bill	suberic - submesic	Kam	Use ESSFdc2 03	Steep, south-facing slopes with open canopies; Pl is a strong component to the stand. These can be open crown closures or NP stands. These are also the gentle ridge top ecosystem units, such as eskers or shoulder ridges.
ESSF	dc	2		04	Not reg'd	Pl Se – Falsebox – Pinegrass	submesic	Kam	Use ESSFdc2 03	Moderate to steep, south-facing (E, S, SW) slopes with closed canopies. Moderate covers of Pinegrass and Falsebox with a low cover of mosses are indicators of this unit.
ESSF	dc	2		05	Not reg'd	Bl – Grouseberry – Cladonia	mesic - submesic	Kam	Use ESSFdc2 04	This is a west-facing slope similar to those in the MS subzones. Falsebox, Huckleberry and Grouseberry are pronounced. Many of the herbs are similar to the south-facing unit, but many of the mosses are more similar to the north-facing units. This unit is the transition between the south- and north-facing slopes.
ESSF	dc	2		06	Not reg'd	Bl – Huckleberry – Feathermoss (Hypersteep North slopes)	mesic - submesic	Kam	Use ESSFdc2 05	Steep to hyper-steep, north-facing slopes with closed or open canopies. The tree boles are far apart but their canopies often intersect. The ground cover is a dense carpet of moss and rock with few herbs or shrubs.
ESSF	dc	2		07	Not reg'd	Bl – Rhododendron – Valerian	mesic - submesic	Kam	Use ESSFdc2 07	Moderate to steep, north-facing slopes with closed canopies. Dense feathermoss is the indicator of this unit. Rhododendron, Falsebox and Huckleberry are common shrubs.
ESSF	dc	2		08	Not reg'd	Bl – Trapper's tea	subhygic	Kam	Use ESSFdc2 08	Not in the Lillooet TSA
ESSF	dc	2		09	Not reg'd	Alder	subhygic	Kam	n/a	Alder swales, typically along creeks or disturbances
ESSF	dc	2		10	Not reg'd	Bl – Gooseberry – Oakfern	subhygic	Kam	Use ESSFdc2 06	The slightly moist toes of slopes and transitions to stream edges, as well as the stream edge units that are dominated by moist shrubs, such as gooseberry and twinberry. These two units intermingle with each other and as such are difficult to separate. As well, this unit also includes fluvial benches along major streams that are subject to flooding throughout growing season.
ESSF	dc	2		11	Not reg'd	Valerian meadow (Herbaceous meadow forests near the Parkland boundary)	subhygic	Kam	Use ESSFdc2 08	These open, moist meadows are intermixed with tree islands and are not separated in the Forest Cover. In the PEM map, these meadows are combined with the tree islands as an ecosystem unit.
ESSF	dc	2		12	Not reg'd	Se – Horsetail	subhygic - hygic	Kam	Use ESSFdc2 08	Horsetail flats along slow-moving streams or around wetlands. Can be productive forests or unproductive forests depending on the quantity of water and whether it is flowing or stagnant.
ESSF	dc	2		13	Not reg'd	Se – Bluejoint	subhygic - hygic	Kam	Use ESSFdc2 08	Unproductive swamp forests. Open canopy of stunted Spruce growing on hummocks. These are typically along the fringes of wetlands or they occupy depression areas.

ESSF	dc	2			GJ	Juniper – Pinegrass Grassland	subxeric - submesic	Kam	n/a	Pocket grasslands on upper, south-facing slopes usually associated with hill tops or ridge tops. Juniper patches are prominent and easily recognizable from a distance. These occur primarily near the boundary of the MS subzone.
ESSF	dc	2			KR / PF	Krummholtz – heather forest Parkland forest	submesic - mesic	Kam		KR's are the shrubby patches of BI or occasionally Pa trees that do not exceed 2 metres in height. Their growth is stunted by heavy snow-packs or high winds. Krummholtz is commonly thought of as marking the boundary of the Parkland subzone, however the BEC linework sometimes includes these ecosystems due to the scale of this mapping. PF's are intermixed stands of krummholtz and upright, but stunted, alpine trees. The shrub and herb species underneath are typically alpine species.
ESSF	dc	2			HM	Herbaceous Meadow (at the Parkland Boundary)	mesic - subhygric	Kam	n/a	These are moist meadows primarily of herbs and grasses. They may also be alder swales in cases of low avalanche activity. They occur at the toes of avalanche paths in this subzone. Many of the species are consistent with alpine species. These are very rich grizzly forage areas.
ESSF	dv	1		01	Not reg'd	BI - Rhododendron - Heron's-bill	mesic	Kam	Use ESSFdv 01	Zonal positions of flat to gentle (25%) slopes on all aspects.
ESSF	dv	1		02	Not reg'd	Pa – Soapberry - Lichen	subxeric	Kam	Use ESSFdv 02	Rocky outcrops with forests (10% or denser cover). These occur on large ridge tops, hyper-steep slopes, or adjacent to cliffs or talus slopes.
ESSF	dv	1		03	Not reg'd	PI Fd - Soapberry - Falsebox	subxeric - submesic	Kam	Use ESSFdv 03	Steep, south-facing slopes with open canopies; PI is a strong component to the stand. These can be open crown closures or NP stands. These are also the gentle ridge top ecosystem units, such as eskers or shoulder ridges.
ESSF	dv	1		04	Not reg'd	BI - Huckleberry - Brachythecium	submesic	Kam	Use ESSFdv 04	Moderate to steep, south-facing (E, S, SW) slopes with closed canopies. Moderate covers of Pinegrass and Falsebox with a low cover of mosses are indicators of this unit.
ESSF	dv	1		01b	Not reg'd	BI - Rhododendron - Heron's-bill (Hypersteep North slopes)	mesic - submesic	Kam	Use ESSFdv 04	Steep to hyper-steep, north-facing slopes with closed or open canopies. The tree boles are far apart but their canopies often intersect. The ground cover is a dense carpet of moss and rock with few herbs or shrubs.
ESSF	dv	1		01a	Not reg'd	BI - Rhododendron - Heron's-bill	mesic	Kam	Use ESSFdv 01	Moderate to steep, north-facing slopes with closed canopies. Dense feathermoss is the indicator of this unit. Rhododendron, Falsebox and Huckleberry are common shrubs.
ESSF	dv	1		05	Not reg'd	BI - Valerian - Arnica	subhygric	Kam	Use ESSFdv 05	The slightly moist toes of slopes and transitions to stream edges, as well as the stream edge units that are dominated by moist shrubs, such as gooseberry and twinberry. These two units intermingle with each other and as such are difficult to separate.

										As well, this unit also includes fluvial benches along major streams that are subject to flooding throughout growing season.
ESSF	dv	1		08	Not reg'd	BL - Heather - Herbaceous meadow forests near the Parkland boundary	subhygric	Kam	Use ESSFdv 06	These open, moist meadows are intermixed with tree islands and are not separated in the Forest Cover. In the PEM map, these meadows are combined with the tree islands as an ecosystem unit.
ESSF	dv	1		07	Not reg'd	Bl - Horsetail - Glow moss	subhygric - hygric	Kam	Use ESSFdv 06	Horsetail flats along slow-moving streams or around wetlands. Can be productive forests or unproductive forests depending on the quantity of water and whether it is flowing or stagnant. Also the unproductive swamp forests. Open canopy of stunted Spruce growing on hummocks. These are typically along the fringes of wetlands or they occupy depression areas.
ESSF	dv	1			GJ	Juniper – Grasslands	subxeric - submesic	Kam	n/a	Pocket grasslands on upper, south-facing slopes usually associated with hill tops or ridge tops. Juniper patches are prominent and easily recognizable from a distance. These occur primarily near the boundary of the MS subzone.
ESSF	dv	1			KR / PF	Krummholtz – heather forest Parkland forest	submesic - mesic	Kam		KR's are the shrubby patches of Bl or occasionally Pa trees that do not exceed 2 metres in height. Their growth is stunted by heavy snow-packs or high winds. Krummholtz is commonly thought of as marking the boundary of the Parkland subzone, however the BEC linework sometimes includes these ecosystems due to the scale of this mapping. PF's are intermixed stands of krummholtz and upright, but stunted, alpine trees. The shrub and herb species underneath are typically alpine species.
ESSF	dv	1			HM	Herbaceous Meadow (at the Parkland Boundary)	mesic - subhygric	Kam	n/a	These are moist meadows primarily of herbs and grasses. They may also be alder swales in cases of low avalanche activity. They occur at the toes of avalanche paths in this subzone. Many of the species are consistent with alpine species. These are very rich grizzly forage areas.
This BEC subzone changed significantly since the fieldwork completed in 2001										
ESSF	dv	2		01 & 05	Not reg'd	Bl - Rhododendron - Heron's-bill Bl - Huckleberry – Valerian	mesic	Kam	Use ESSFdv 01	Zonal positions of flat to gentle (25%) slopes on all aspects.
ESSF	dv	2		02	Not reg'd	PaPl - Juniper - Lichen	subxeric	Kam	Use ESSFdv 02	Rocky outcrops with forests (10% or denser cover). These occur on large ridge tops, hyper-steep slopes, or adjacent to cliffs or talus slopes.
ESSF	dv	2		03	Not reg'd	PaPl - Pinegrass - Juniper	subxeric - submesic	Kam	Use ESSFdv 03	Steep, south-facing slopes with open canopies; Pl is a strong component to the stand. These can be open crown closures or NP stands. These are also the gentle ridge top ecosystem units, such as eskers or shoulder ridges.
ESSF	dv	2		04	Not	Bl - Huckleberry - Lupine	submesic	Kam	Use	Moderate to steep, south-facing (E, S, SW) slopes with closed canopies. Moderate

				reg'd				ESSFdv 04	covers of Pinegrass and Falsebox with a low cover of mosses are indicators of this unit.
ESSF	dv	2	01b	Not reg'd	Bl - Rhododendron - Heron's-bill	submesic - mesic	Kam	Use ESSFdv 04	Steep to hyper-steep, north-facing slopes with closed or open canopies. The tree boles are far apart but their canopies often intersect. The ground cover is a dense carpet of moss and rock with few herbs or shrubs.
ESSF	dv	2	01a	Not reg'd	Bl - Rhododendron - Heron's-bill	mesic - subhygric	Kam	Use ESSFdv 04	Moderate to steep, north-facing slopes with closed canopies. Dense feathermoss is the indicator of this unit. Rhododendron, Falsebox and Huckleberry are common shrubs.
ESSF	dv	2	06	Not reg'd	Bl – Valerian – Arnica	subhygric	Kam	Use ESSFdv 05	The slightly moist toes of slopes and transitions to stream edges, as well as the stream edge units that are dominated by moist shrubs, such as gooseberry and twinberry. These two units intermingle with each other and as such are difficult to separate. As well, this unit also includes fluvial benches along major streams that are subject to flooding throughout growing season.
ESSF	dv	2	09	Not reg'd	BL - Heather - Herbaceous meadow forests	subhygric	Kam	Use ESSFdv 06	These open, moist meadows are intermixed with tree islands and are not separated in the Forest Cover. In the PEM map, these meadows are combined with the tree islands as an ecosystem unit.
ESSF	dv	2	07 & 08	Not reg'd	Sxw – Horsetail – Glowmoss & Wet Forests	hygric	Kam	Use ESSFdv 06	Horsetail flats along slow-moving streams or around wetlands. Can be productive forests or unproductive forests depending on the quantity of water and whether it is flowing or stagnant. Also the unproductive swamp forests. Open canopy of stunted Spruce growing on hummocks. These are typically along the fringes of wetlands or they occupy depression areas.
ESSF	dv	2		GJ	Juniper – Grasslands	subxeric - submesic	Kam	n/a	Pocket grasslands on upper, south-facing slopes usually associated with hill tops or ridge tops. Juniper patches are prominent and easily recognizable from a distance. These occur primarily near the boundary of the MS subzone.
ESSF	dv	2		KR / PF	Krummholtz – heather forest Parkland forest	submesic - mesic	Kam		KR's are the shrubby patches of Bl or occasionally Pa trees that do not exceed 2 metres in height. Their growth is stunted by heavy snow-packs or high winds. Krummholtz is commonly thought of as marking the boundary of the Parkland subzone, however the BEC linework sometimes includes these ecosystems due to the scale of this mapping. PF's are intermixed stands of krummholtz and upright, but stunted, alpine trees. The shrub and herb species underneath are typically alpine species.
ESSF	dv	2		HM	Herbaceous Meadow (at the Parkland Boundary)	mesic - subhygric	Kam	n/a	These are moist meadows primarily of herbs and grasses. They may also be alder swales in cases of low avalanche activity. They occur at the toes of avalanche paths in this subzone. Many of the species are consistent with alpine species. These are very rich grizzly forage areas.

ESSF	mw			08 / 08 MS / 07	Not reg'd	BlBa – White-flowered Rhododendron – Heron's bill moss BlBa – Azalea – Pipe-cleaner moss	mesic	Kam	Use ESSFmw 01	Zonal positions of flat to gentle (25%) slopes on all aspects. Note in early or mid seral stages of this ecosystem unit, the Rhododendron is sparse. The 07 unit is placed here since the species mix is most similar to the zonal other than the azalea replaces the rhododendron. This switch occurs randomly on zonal units. Oddly, we saw this unit on gentle ridge crests of the Duffy Lake area.
ESSF	mw			02	Not reg'd	Common Juniper – Lance-leaved stonecrop	subxeric	Kam	Use ESSFmw 02	Rocky outcrops with forests (10% or denser cover). These occur on large ridge tops, hyper-steep slopes, or adjacent to cliffs or talus slopes.
ESSF	mw			03	Not reg'd	BlPl – Juniper Racomitrium	subxeric - submesic	Kam	Use ESSFmw 02	Ridge crests or hill top positions. These are also the gentle ridge top ecosystem units, such as eskers or shoulder ridges. These can be open crown closures or NP stands. This unit is common in the Hurley Pass area.
ESSF	mw			04 05	Not reg'd	Fd – Falsebox – Pinegrass Bl – Huckleberry – Falsebox	submesic	Kam	Use ESSFmw 03 or 04 respectively	These are the moderate to steep, south-facing (E, S, SW) slopes. The 04 unit occurs mainly near the MS boundary or in unusually hot/dry valleys. Moderate covers of Pinegrass and Falsebox with a low cover of mosses are indicators of this unit. The 05 unit was more common on south-facing slopes of this subzone – pinegrass was nearly absent but huckleberry increased to the normal abundance for many site series in this subzone.
ESSF	mw			06	Not reg'd	Pl – Grouseberry				Not in this District
ESSF	mw			01b	Not reg'd	BlBa – Rhododendron	submesic - mesic	Kam	Use ESSFmw 05	Steep to hyper-steep, north-facing slopes with closed or open canopies. The tree boles are far apart but their canopies often intersect. The ground cover is a dense carpet of moss and rock with few herbs or shrubs.
ESSF	mw			01	Not reg'd	BlBa – Rhododendron	mesic - subhygric	Kam	Use ESSFmw 05	Moderate to steep, north-facing slopes with closed canopies. Dense feathermoss is the indicator of this unit. Rhododendron, Falsebox and Huckleberry are common shrubs.
ESSF	mw			09	Not reg'd	Bl – Gooseberry – Valerian	subhygric	Kam	Use ESSFmw 06	The slightly moist toes of slopes and transitions to stream edges, as well as the stream edge units that are dominated by moist shrubs, such as gooseberry. As well, this unit also includes fluvial benches along major streams that are subject to flooding throughout growing season.
ESSF	mw			10	Not reg'd	Bl – Gooseberry – Horsetail	hygric	Kam	Use ESSFmw 07	Horsetail flats along slow-moving streams or around wetlands. Can be productive forests or unproductive forests depending on the quantity of water and whether it is flowing or stagnant. Note that the open Pl bog woodlands were lumped with the WE ecosystem unit during the calibration process of this KB.
ESSF	mw				KR /	Krummholtz – heather forest	submesic - mesic	Kam		KR's are the shrubby patches of Bl or occasionally Pa trees that do not exceed 2 metres in height. Their growth is stunted by heavy snow-packs or high winds.

					PF	Parkland forest				<p>Krummholtz is commonly thought of as marking the boundary of the Parkland subzone, however the BEC linework sometimes includes these ecosystems due to the scale of this mapping.</p> <p>PF's are intermixed stands of krummholtz and upright, but stunted, alpine trees. The shrub and herb species underneath are typically alpine species.</p>
ESSF	mw				HM	Herbaceous Meadow (at the Parkland Boundary)	mesic - subhygric	Kam	n/a	These are moist meadows primarily of herbs and grasses. They may also be alder swales in cases of low avalanche activity. They occur at the toes of avalanche paths in this subzone. Many of the species are consistent with alpine species. These are very rich grizzly forage areas.
This was formerly ESSFxc3 in the first 2 years of the PEM project										
ESSF	xc	4		01 & 05	Not reg'd	Bl – Rhododendron – Barbiliphozia Bl – Barbiliphozia	mesic	Kam	Use ESSFxc 01	Zonal positions of flat to gentle (25%) slopes on all aspects. The zonal and north units were lumped by D. Lloyd. We separated these out anyway and used letter codes to denote which unit we are referring to.
ESSF	xc	4		02	Not reg'd	Bl – Juniper – Lichen	subxeric	Kam	Use ESSFxc 02	Rocky outcrops with forests (10% or denser cover). These occur on large ridge tops, hyper-steep slopes, or adjacent to cliffs or talus slopes.
ESSF	xc	4		03	Not reg'd	PaPl – Juniper	subxeric - submesic	Kam	Use ESSFxc 02	Steep, south-facing slopes with open canopies; Pa and Pl are strong components to the stand. These can be open crown closures or NP stands. These are also the gentle ridge top ecosystem units, such as eskers or shoulder ridges.
ESSF	xc	4		04	Not reg'd	Se Pl – Pinegrass	submesic	Kam	Use ESSFxc 05	Moderate to steep, south-facing (E, S, SW) slopes with closed canopies. Moderate covers of Pinegrass and Falsebox with a low cover of mosses are indicators of this unit.
ESSF	xc	4		01b	Not reg'd	Bl –Barbiliphozia	submesic - mesic	Kam	Use ESSFxc 06	Steep to hyper-steep, north-facing slopes with closed or open canopies. The tree boles are far apart but their canopies often intersect. The ground cover is a dense carpet of moss and rock with few herbs or shrubs.
ESSF	xc	4		01a	Not reg'd	Bl – Rhododendron – Barbiliphozia	mesic - subhygric	Kam	Use ESSFxc 06	Moderate to steep, north-facing slopes with closed canopies. Dense feathermoss is the indicator of this unit. Rhododendron, Falsebox and Huckleberry are common shrubs.
ESSF	xc	4		08	Not reg'd	Meadow forest unit	mesic - subhygric	Kam	Use ESSFxc 08	This unit was not recognized in the revised classification, but we included it anyway. These open, moist meadows are intermixed with tree islands and are not separated in the Forest Cover. In the PEM map, these meadows are combined with the tree islands as an ecosystem unit.
ESSF	xc	4		06	Not reg'd	Se – Valeriana	subhygric - hygric	Kam	Use ESSFxc 07	The slightly moist toes of slopes and transitions to stream edges, as well as the stream edge units that are dominated by moist shrubs, such as gooseberry. As well, this unit also includes fluvial benches along major streams that are subject to flooding throughout growing season.

ESSF	xc	4		07	Not reg'd	Se – Horsetail	hygric - hydric	Kam	Use ESSFxc 08	Horsetail flats along slow-moving streams or around wetlands. Can be productive forests or unproductive forests depending on the quantity of water and whether it is flowing or stagnant.
ESSF	xc	3		91	GJ	Juniper – Pinegrass Grassland	subxeric - submesic	Kam		Pocket grasslands on upper, south-facing slopes usually associated with hill tops or ridge tops. Juniper, soopalalie and Kinnikinnick form patches that easily recognizable from a distance. These occur primarily near the boundary of the MS subzone.
ESSF	xc	3		93	GD	Bluebunch wheatgrass - Junegrass 91 – Fescue (not in Lillooet)	submesic - mesic	Kam	n/a	Flat to moderate slopes dominated by grasses and a few herbs. Generally south-facing, but occasionally wrapping around to northerly aspects. These are the OR (open range) polygons from Forest Cover.
ESSF	xc	4			KR / PF	Krummholtz – heather forest Parkland forest	submesic - mesic	Kam		KR's are the shrubby patches of BI or occasionally Pa trees that do not exceed 2 metres in height. Their growth is stunted by heavy snow-packs or high winds. Krummholtz is commonly thought of as marking the boundary of the Parkland subzone, however the BEC linework sometimes includes these ecosystems due to the scale of this mapping. PF's are intermixed stands of krummholtz and upright, but stunted, alpine trees. The shrub and herb species underneath are typically alpine species.
ESSF	xc	4			HM	Herbaceous Meadow (at the Parkland Boundary)	mesic - subhygric	Kam	n/a	These are moist meadows primarily of herbs and grasses. They may also be alder swales in cases of low avalanche activity. They occur at the toes of avalanche paths in this subzone. Many of the species are consistent with alpine species. These are very rich grizzly forage areas.
This was formerly ESSFxc4 in the first 2 years of the PEM project										
ESSF	xc	3		01 04	Not reg'd	Pl - Juniper - Lupine – Twinflower Pl – Alnus viridis (Leon Creek)	mesic	Kam	Use ESSFxc 01	Zonal positions of flat to gentle (25%) slopes on all aspects.
ESSF	xc	3		02	Not reg'd	Juniper – Kinnikinnick Pl - Juniper - Lichen	subxeric	Kam	Use ESSFxc 02	Rocky outcrops with forests (10% or denser cover). These occur on large ridge tops, hyper-steep slopes, or adjacent to cliffs or talus slopes.
ESSF	xc	3		03	Not reg'd	Now missing in the classification Pl - Soapberry - Kinnikinnick	subxeric - submesic	Kam	Use ESSFxc 02	This unit was recognized in the classification system used in the first 2 years of this project. It is now combined with the 04 unit below. Steep, south-facing slopes with open canopies; Pl is a strong component to the stand. These can be open crown closures or NP stands. These are also the gentle ridge top ecosystem units, such as eskers or shoulder ridges.
ESSF	xc	3		03	Not reg'd	Pl - Pinegrass	submesic	Kam	Use ESSFxc 05	Moderate to steep, south-facing (E, S, SW) slopes with closed canopies. Moderate covers of Pinegrass and Falsebox with a low cover of mosses are indicators of this unit.

										This unit now includes the former 03 unit described in the above row.
ESSF	xc	3		05a	Not reg'd	Se - Feathermoss - Heron's Bill (hyper-steep North)	mesic - submesic	Kam	Use ESSFxc 06	Steep to hyper-steep, north-facing slopes with closed or open canopies. The tree boles are far apart but their canopies often intersect. The ground cover is a dense carpet of moss and rock with few herbs or shrubs.
ESSF	xc	3		05	Not reg'd	Se - Rhododendron - Heron's Bill	mesic	Kam	Use ESSFxc 06	Moderate to steep, north-facing slopes with closed canopies. Dense feathermoss is the indicator of this unit. Rhododendron, Falsebox and Huckleberry are common shrubs.
ESSF	xc	3		06	Not reg'd	Se - Rhododendron - Valeriana	subhygric	Kam	Use ESSFxc 07	The slightly moist toes of slopes and transitions to stream edges, as well as the stream edge units that are dominated by moist shrubs, such as gooseberry and twinberry. These two units intermingle with each other and as such are difficult to separate. As well, this unit also includes fluvial benches along major streams that are subject to flooding throughout growing season.
ESSF	xc	3		61 07	Not reg'd	Globeflower – Valeriana Meadow BL – Heather - Herbaceous meadow forests	subhygric	Kam	Use ESSFxc 08	Was formerly included as a forested unit. These open, moist meadows are intermixed with tree islands and are not separated in the Forest Cover. In the PEM map, these meadows are combined with the tree islands as an ecosystem unit.
ESSF	xc	3		07	Not reg'd	Se - Horsetail	subhygric - hygric	Kam	Use ESSFxc 08	Horsetail flats along slow-moving streams or around wetlands. Can be productive forests or unproductive forests depending on the quantity of water and whether it is flowing or stagnant.
ESSF	xc	3		91	GJ	Juniper – Pinegrass Grassland	subxeric - submesic	Kam		Pocket grasslands on upper, south-facing slopes usually associated with hill tops or ridge tops. Juniper, soopalalie and Kinnikinnick form patches that easily recognizable from a distance. These occur primarily near the boundary of the MS subzone.
ESSF	xc	3			KR / PF	Krummholtz – heather forest Parkland forest	submesic - mesic	Kam		KR's are the shrubby patches of Bl or occasionally Pa trees that do not exceed 2 metres in height. Their growth is stunted by heavy snow-packs or high winds. Krummholtz is commonly thought of as marking the boundary of the Parkland subzone, however the BEC linework sometimes includes these ecosystems due to the scale of this mapping. PF's are intermixed stands of krummholtz and upright, but stunted, alpine trees. The shrub and herb species underneath are typically alpine species.
ESSF	xc	3			HM	Herbaceous Meadow (at the Parkland Boundary)	mesic - subhygric	Kam	n/a	These are moist meadows primarily of herbs and grasses. They may also be alder swales in cases of low avalanche activity. They occur at the toes of avalanche paths in this subzone. Many of the species are consistent with alpine species. These are very rich grizzly forage areas.

This BEC subzone changed significantly since the fieldwork completed in 2001. No meadow forest unit is recognized in the current classification scheme.										
ESSF	xv			01 & 05	Not reg'd	Pl – Arnica – Cladonia & Bl – Brachythecium – Peltigera	mesic	Kam	Use Cariboo ESSFxv1 01	Zonal positions of flat to gentle (25%) slopes on all aspects.
ESSF	xv			02	Not reg'd	Pl – Juniper	subxeric - submesic	Kam	No SIBEC available	Rocky outcrops with forests (10% or denser cover). These occur on large ridge tops, hyper-steep slopes, or adjacent to cliffs or talus slopes.
ESSF	xv			03	Not reg'd	Pa – Juniper – Kinnikinnick	subxeric - submesic	Kam	No SIBEC available	Steep, south-facing slopes with open canopies; has a strong Pa component to the stand. These can be open crown closures or NP stands. These are also the gentle ridge top ecosystem units, such as eskers or shoulder ridges.
ESSF	xv			04	Not reg'd	Pl – Pinegrass	submesic	Kam	No SIBEC available	Moderate to steep, south-facing (E, S, SW) slopes with closed canopies. Moderate covers of Pinegrass and Falsebox with a low cover of mosses are indicators of this unit.
ESSF	xv			06a	Not reg'd	Pl – Rhododendron – Feathermoss	mesic - submesic	Kam	No SIBEC available	Steep to hyper-steep, north-facing slopes with closed or open canopies. The tree boles are far apart but their canopies often intersect. The ground cover is a dense carpet of moss and rock with few herbs or shrubs.
ESSF	xv			06	Not reg'd	Pl – Rhododendron – Feathermoss	mesic - subhygric	Kam	No SIBEC available	Moderate to steep, north-facing slopes with closed canopies. Dense feathermoss is the indicator of this unit. Rhododendron, Falsebox and Huckleberry are common shrubs.
ESSF	xv			07	Not reg'd	Pl – Lousewort – Glowmoss	subhygric	Kam	No SIBEC available	The slightly moist toes of slopes and transitions to stream edges, as well as the stream edge units that are dominated by moist shrubs, such as gooseberry and twinberry. These two units intermingle with each other and as such are difficult to separate. As well, this unit also includes fluvial benches along major streams that are subject to flooding throughout growing season.
ESSF	xv			08 & 09	Not reg'd	Pl – Horsetail & Se – Willow	hygric - subhydric	Kam	No SIBEC available	Horsetail flats along slow-moving streams or around wetlands. Can be productive forests or unproductive forests depending on the quantity of water and whether it is flowing or stagnant. Also the unproductive swamp forests. Open canopy of stunted Spruce growing on hummocks. These are typically along the fringes of wetlands or they occupy depression areas.
ESSF	xv				GJ	Juniper – Fescue Grasslands	subxeric - submesic	Kam		Pocket grasslands on upper, south-facing slopes usually associated with hill tops or ridge tops. Juniper, soopalalie and Kinnikinnick form patches that easily recognizable from a distance. This unit also includes the dry fescue – tristem grasslands that are rare at this elevation. These occur primarily near the boundary of the MS subzone.

ESSF	xv				KR / PF	Krummholtz – heather forest Parkland forest	submesic - mesic	Kam		KR's are the shrubby patches of Bl or occasionally Pa trees that do not exceed 2 metres in height. Their growth is stunted by heavy snow-packs or high winds. Krummholtz is commonly thought of as marking the boundary of the Parkland subzone, however the BEC linework sometimes includes these ecosystems due to the scale of this mapping. PF's are intermixed stands of krummholtz and upright, but stunted, alpine trees. The shrub and herb species underneath are typically alpine species.
ESSF	xv				HM	Herbaceous Meadow (at the Parkland Boundary)	mesic - subhygric	Kam	n/a	These are moist meadows primarily of herbs and grasses. They may also be alder swales in cases of low avalanche activity. They occur at the toes of avalanche paths in this subzone. Many of the species are consistent with alpine species. These are very rich grizzly forage areas.
					WE	Wetland – undistinguished open water, sedge and shrub	hydic	Kam		This unit describes most of the wetland complexes including shrub wetlands. Due to the coarseness of the available inventory attributes, we created this general category. Technically, the WS is a subset of this WE unit and could be scored as correct if the PEM label is WE. However, we separated these units in an attempt to refine the PEM product.
					WS	Wetland – Shrub-dominated	subhygric - hydic	Kam		This unit describes shrub wetlands that are picked out primarily by the non-productive brush codes from the Forest Cover inventory.
					LA	Lake	N/a	Kam		
					RI	River	N/a	Kam		
					LS	Landslide	N/a	Kam		
					HM	Herbaceous Meadows	N/a	Kam		At lower elevations, these are the toes of avalanche paths and are either lush tall herbaceous communities with scattered alders or willows, or dense alder swales resulting from low avalanche activity (deep avalanche slabs remove the shrub vegetation). In the parkland and alpine subzones, these are the moist meadows dominated by herbs, variable willow and alder shrubs and few grasses. They generally occur in moist bowls, along seepages or near stream edges.
					AV	Avalanche Track – includes Landslides for these subzones	N/a	Kam		
					RT	Rock or Talus	N/a	Kam		We combined these two categories since we were not able to distinguish them successfully
					GL	Glacier or Snow/Ice	N/a	Kam		

					SB	Sand Bar	N/a	Kam		
					ES	Exposed Soil	N/a	Kam		
					RZ	Roads	N/a	Kam		
					UR	Urban	N/a	Kam		
					AG	Alpine Grassland				Grass or dryland sedge dominated slopes
					HG	Heath Grassland				Heather or dryas dominated slopes
					KR	Krummholtz				Krummholtz dominated slopes with heather and huckleberry shrubs; may have islands of upright trees
					PF	Parkland Forest				High elevation forest stands; either open or closed canopies; understory of heather, huckleberry and parkland species
					HM	Herbaceous Meadows				Wet seepage slopes dominated by herbs such as Sitka Valerian, Arctic Lupine and Globe Flower
					WM	Wet Meadows				Wet benches next to streams, wetlands or lakes; dominated by sedges, Bog Laurel and Sweet Coltsfoot.