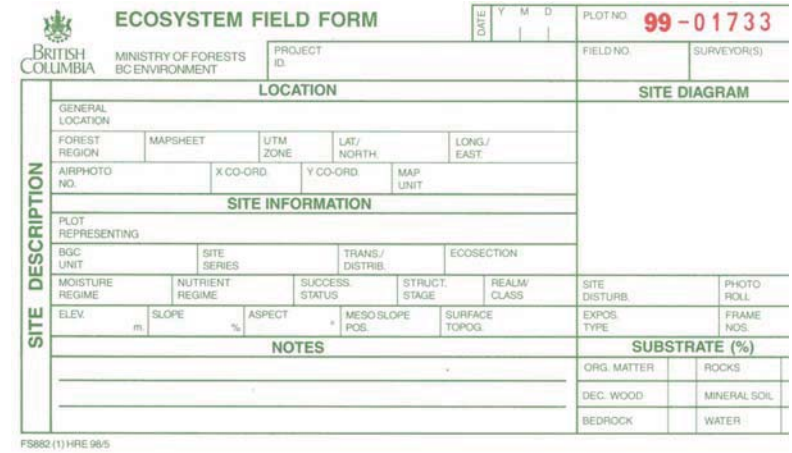
Appendix A: Field Plot Forms



ECOSYSTEM FIELD FORM

BRITISH COLUMBIA — MINISTRY OF FORESTS / BC ENVIRONMENT

DATE (Y M D) | PLOT NO. 99-01733 | PROJECT ID. | FIELD NO. | SURVEYOR(S)

SITE DESCRIPTION

LOCATION | SITE DIAGRAM

GENERAL LOCATION

FOREST REGION | MAPSHEET | UTM ZONE | LAT./ NORTH. | LONG./ EAST.

AIRPHOTO NO. | X CO-ORD. | Y CO-ORD. | MAP UNIT

SITE INFORMATION

PLOT REPRESENTING

BGC UNIT | SITE SERIES | TRANS./ DISTRIB. | ECOSECTION

MOISTURE REGIME | NUTRIENT REGIME | SUCCESS. STATUS | STRUCT. STAGE | REALM/ CLASS | SITE DISTURB. | PHOTO ROLL

ELEV. m. | SLOPE % | ASPECT ° | MESO SLOPE POS. | SURFACE TOPOG. | EXPOS. TYPE | FRAME NOS.

NOTES

SUBSTRATE (%)

ORG. MATTER | ROCKS

DEC. WOOD | MINERAL SOIL

BEDROCK | WATER

FS882 (1) HRE 98/5

GEOLOGY BEDROCK | C. F. LITH. | SURVEYOR(S) | PLOT NO.

TERRAIN TEXTURE 1 2 | SURFICIAL MATERIAL 1 2 | SURFACE EXPR. 1 2 | GEOMORPH./ PROCESS 1 2 | PROFILE DIAGRAM

SOIL CLASS. | HUMUS FORM | HYDROGEO.

ROOTING DEPTH cm | ROOT RESTRICT. LAYER TYPE DEPTH cm | WATER SOURCE SEEPAGE cm | DRAINAGE FLOOD FREQ.

R. Z. PART. SIZE

SOIL DESCRIPTION

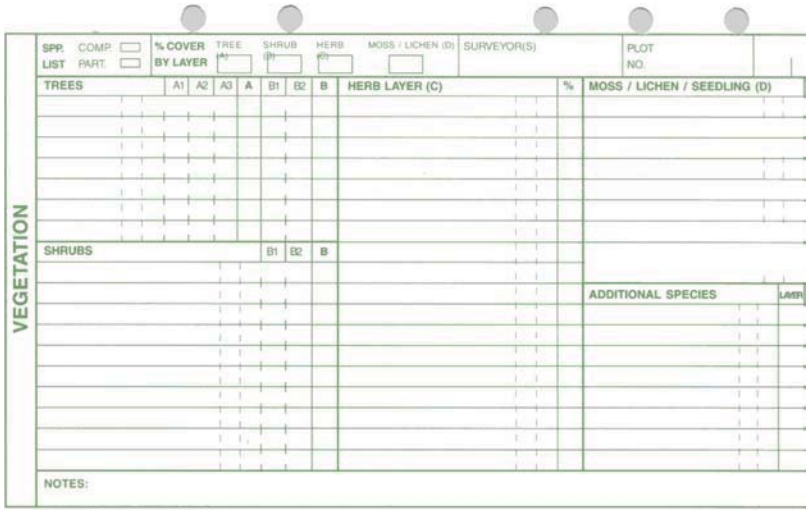
ORGANIC HORIZONS/LAYERS

HOR./ LAYER | DEPTH | FABRIC: STRUCTURE, vPOST | MYCEL. AB. | FECAL AB. | ROOTS AB. | ROOTS SIZE | pH | COMMENTS (consistency, character, fauna, etc):

MINERAL HORIZONS/LAYERS

HOR./ LAYER | DEPTH | COLOUR | ASP. | TEXT. | % COARSE FRAGMENTS: G, C, S, TOTAL, SHAPE | ROOTS: AB., SIZE | STRUCTURE: CLASS, KIND | pH | COMMENTS (mottles, clay films, effervesc., etc):

NOTES:



SPP. LIST: COMP. PART. | % COVER BY LAYER: TREE (A) SHRUB (B) HERB (C) MOSS / LICHEN (D) | SURVEYOR(S) | PLOT NO.

VEGETATION

TREES: A1 A2 A3 A | B1 B2 B | HERB LAYER (C) | % | MOSS / LICHEN / SEEDLING (D)

SHRUBS: B1 B2 B

ADDITIONAL SPECIES | LAYER

NOTES:

BRITISH COLUMBIA

GROUND INSPECTION FORM

G ☐ VS V ☐	PHOTO	X:	Y:	DATE
PROJECT ID.		SURV.		
MAP SHEET		PLOT		POLY.
UTM ZONE	LAT. / NORTH		LONG. / EAST	
ASPECT °		ELEVATION		m
SLOPE %	SMR		SNR	

MESO SLOPE POSITION	☐ Crest	☐ Mid slope	☐ Depression	
	☐ Upper slope	☐ Lower slope	☐ Level	
		☐ Toe		
DRAINAGE - MINERAL SOILS	☐ Very rapidly	☐ Well	☐ Poorly	
	☐ Rapidly	☐ Mod. well	☐ Very poorly	
		☐ Imperfectly		
MOISTURE SUBCLASSES - ORGANIC SOILS	☐ Aqueous	☐ Aquic	☐ Perhumid	
	☐ Peraquic	☐ Subaquic	☐ Humid	
MINERAL SOIL TEXTURE	☐ Sandy (LS,S)		☐ Silty (SiL,Si)	
	☐ Loamy (SL,L,SCL,FSL)		☐ Clayey (SiCL,CL,SC,SiC,C)	
ORGANIC SOIL TEXTURE	☐ Fibric ☐ Mesic ☐ Humic		SURF. ORGANIC HORIZON THICKNESS	☐ 0–40 cm ☐ > 40 cm
HUMUS FORM	☐ Mor ☐ Moder ☐ Mull		ROOT RESTRICTING LAYER	Depth ____ cm Type ____
COARSE FRAGMENT CONTENT	☐ < 20%	☐ 20–35%	☐ 35–70%	☐ > 70%

TERRAIN

COMPONENT: TC1 ☐ TC2 ☐ TC3 ☐

	TERRAIN TEXTURE	SURFICIAL MATERIAL	SURFACE EXPRESSION	GEOMORPH PROCESS
1				
2				

ECOSYSTEM

COMPONENT: EC1 ☐ EC2 ☐ EC3 ☐

BGC UNIT	ECOSECTION
SITE SERIES	SITE MODIFIERS
STRUCTURAL STAGE	CROWN CLOSURE %

ECOSYSTEM POLYGON SUMMARY					TERRAIN POLYGON SUMMARY		
	%	SS	SM	ST		%	Classification
EC1					TC1		
EC2					TC2		
EC3					TC3		

DOMINANT / INDICATOR PLANT SPECIES

TOTAL %	A:	B:	C:	D:

L.	SPECIES	%	L.	SPECIES	%	L.	SPECIES	%

COMPLETE ☐ PARTIAL ☐

Tree Mensuration

Spp.	DBH	Ht. Calculation to DBH						Ht. to DBH	Total HT	BH Age	Path Y/N
		Top	Bot	SD	SL	HD	HT				

NOTES (site diagram, exposure, gleying, etc.)

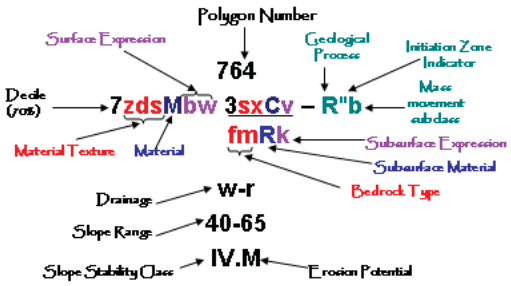
VISUAL& CONSERVATION EVALUATION FORM									
PROJ. ID.					**SURV.**				
PLOT#		**AIR PHOTO #**					**DATE**		
UTM ZONE		LAT./NORTH			LONG./EAST				
BGC UNIT		SITE SERIES			SITE MOD				
STR STAGE		ASPECT	°		ELEVATION	m			
SLOPE	%	SMR/SNR			MESO SLOPE				
SOIL DRAINAGE		SOIL TEXTURE			COARSE FRAG%				
TERRAIN COMPONENT 1:									
DOMINANT / INDICATOR VEGETATION SPECIES									
TOTAL	**A:**		**B:**		**C:**		**D:**		
SPECIES	L	%	SPECIES	L	%	SPECIES	L	%	
COMPLETE ❒ PARTIAL ❒									

ECOSYSTEM POLYGON SUMMARY						TERRAIN POLYGON SUMMARY		
	%	**SS**	**SM**	**ST**	**CC**		**%**	Classification
EC1						**TC1**		
EC2						**TC2**		
EC3						**TC3**		

CONSERVATION EVALUATION FORM			
PROJECT IDENTIFICATION		**DATE:**	
PROJECT ID:		**PLOT #:**	
POLY #:	**SEI CLASS:SUBCLASS:**		
ECOLOGICAL COMMUNITY			
CONSERVATION INFORMATION			
OWNER/JURISDICTION:			
DISTURBANCE:		**KNOWN THREATS:**	
ADJACENT LAND USE:		**OTHER FACTORS:**	
ALIEN SPP.:			
SUCCESS. STATUS:		**EST. SIZE COMM:**	**(ha)**
FRAGMENTATION OF ECOLOGICAL COMMUNITY			
❒ < 5% FRAGMENTED ❒ 5 - 25 % FRAGMENTED ❒ > 25% FRAGMENTED			
EVALUATION SUMMARY			
LANDSCAPE CONTEXT:	EXCELLENT ❒ GOOD ❒ FAIR ❒ POOR ❒		
ECOLOGICAL INTEGRITY:	EXCELLENT ❒ GOOD ❒ FAIR ❒ POOR ❒		
CONDITION:	EXCELLENT ❒ GOOD ❒ FAIR ❒ POOR ❒		
NOTES(AT-RISK SPECIES, WILDLIFE OBSV., ACCURACY INFO, ETC)			
OBSERVER	NAME:		
ADDRESS:			
EMAIL:		PHONE/FAX:	
SUBMIT DATA			
B.C. Conservation Data Centre **P.O. Box 9358, Stn. Prov. Gov't, Victoria, BC. V8W 9M2** Include: FS882 or GIF or VENUS file ❒ air photos with polygon marked ❒ map product(s) ❒ ground photos ❒			

Appendix B: Terrain Legend

Terrain Polygon Symbols



Terrain Map Label

Note: one or more letters may be used to describe any characteristic other than surficial material, or letters may be omitted if information is lacking.

Composite Units: Two or three groups of letters are used to indicate that two or three kinds of terrain are present within a map unit.

e.g., 7Mv 3Rs indicates that the polygons contains approximately 70% "Mv" and 30%"Rs".
e.g., 6Mb 3Cv 1Rs indicates that the polygons contains approximately 60% "Mb" , 30%"Cv", and 10% “Rs”.

Stratigraphic Units: Groups of letters are arranged one above the other where one or more kinds of surficial material overlie a different material or bedrock: e.g., Mv / Rr indicates that "Mv" overlies "Rr".

Material	
Code	**Name**
A	Anthropogenic
C	Colluvium
C1	Slope wash
D	Weathered bedrock
E	Eolian
F	Fluvial materials
FA	"Active" fluvial materials
FG	Glaciofluvial materials
L	Lacustrine sediments
LG	Glaciolacustrine sediments
M	Till
O	Organic materials
R	Bedrock
U	Undifferentiated materials

Texture	
Code	**Name**
c	clay
z	silt
s	sand
p	pebbles
k	cobbles
b	boulders
a	blocks
d	mixed fragments
g	gravel
r	rubble
x	angular fragments
m	mud
y	shells
e	fibric
u	mesic
h	humic

Surface Expression	
Code	**Name**
a	moderate slope(s)
b	blanket (>1m thick)
c	cone
d	depression
f	fan
h	hummocky
j	gentle slope(s) (5-27%)
k	moderately steep slope (49-70%)
m	rolling topography
p	plain (0-5%)
r	ridges
s	steep slope(s) (>70%)
t	terrace(s)
u	undulating topography
v	veneer (≤1m thick)
w	mantle of variable thickness
x	thin veneer (10-25cm)

Detailed Descriptions of Surficial Materials

Anthropogenic Material (A)

Anthropogenic materials are deposits that are sufficiently reworked or redistributed by human activities that their original character is lost. Examples include gravel pits and fill used for roads and other construction.

Colluvium (C)

Colluvium accumulated during post-glacial times as a result of gravity-induced slope movement, for example, rock fall and soil creep. The physical characteristics of colluvium are closely related to its source and mode of accumulation. Four processes generally create colluvial deposits; (1) rockfall from bedrock bluffs, (2) soil creep in weathered bedrock, (3) mass movement processes in surficial materials (debris flows and debris slides), and (4) rockslides and rock slumps.

Rockfall from bedrock bluffs typically forms talus slopes (Ck). Talus is loosely packed rubble or blocks with little interstitial silt and sand near the surface, and is rapidly drained. Within the study area talus is scattered throughout flanking bedrock cliffs.

Colluvial veneers (Cv) and blankets (Cb) develop where weathered bedrock or surficial materials have been loosened and moved down slope by gravitational processes such as soil creep. It is loosely packed and usually rapidly drained. Colluvial veneers and very thin veneers are most common on upper, moderately steep and steep gradient slopes and as discontinuous, very thin veneers on bedrock-controlled terrain. The matrix texture of the colluvium reflects the bedrock or surficial materials it is derived from.

Colluvial fans (Cf) and cones (Cc) form at the base of steep gullies due to deposition by debris flows (-Rd). These deposits are generally compact, and sorting may range from poorly sorted to well sorted. The deposit may or may not be matrix supported, and the matrix is usually sand. Colluvial cones and fans are common at the mouths of the large single gullies.

Deep-seated slumps in bedrock and surficial materials result in hummocky, irregular colluvial deposits (Chu). Rock slumps contain blocks and rubble with little or no interstitial silt and sand.

Slope Wash (C1)

Slope wash is a result of rainfall events in which non-channellized overland flow carries surface material from a steeper area to a gentler area down slope. The material is generally derived from eolian sediments. Slope wash generally does not travel far and comes to rest on gentler slopes of 0 to 15 %. In the study area, it was commonly found as a partial veneer overlying till, fluvial or lacustrine deposits. The typical texture is silty sand or sandy silt with generally less than 5 % coarse fragments. It commonly includes some imperfect drainage as it accumulates in receiving sites and is often vegetated by shrubs and sometimes aspen.

Weathered Bedrock (D)

Weathered bedrock has been modified *in situ* by mechanical and chemical weathering and the matrix texture reflects the bedrock that it was derived from. The material is typically loosely packed and well drained. In the study area, weathered bedrock was found as a discontinuous very thin veneer (Dx) overlying gently sloping or undulating bedrock outcrops.

Eolian Sediments (E)

Eolian sediments were transported and deposited by wind. They typically occur as a thin cap (Ev) over other materials, but may locally thicken into a blanket or dunes. Eolian veneers were found on the gentler slopes scattered throughout the study area. These deposits typically consist of silt and fine sand and often form the Ah horizon in Chernozemic soils.

Fluvial Materials (F, F^A)

Fluvial materials were deposited in post-glacial time by streams. Fluvial materials consist of loosely packed, non-cohesive sands and silt with some gravel. In the study area, fluvial materials are present mainly as small portions of a polygon that include a stream. Fluvial materials were generally mapped as floodplains (Fp, F^Ap) or gentle fluvial areas (Fj) with imperfect to poor drainage. Modern-day floodplains are located along major valley bottom streams in the study area, including Mission and Kelowna Creeks. Large fans are located at the mouths of Scotty, Mission, KLO, Rumohr, Priest and Bellevue Creeks.

Glaciofluvial Materials (F^G)

Glaciofluvial materials were deposited by glacial meltwater streams at the end of the Fraser Glaciation. Sands and gravels accumulated along ice margins and on top of melting ice (FGu) and downstream of melting ice (FGf and FGp). In some areas, rivers were made and quickly abandoned depositing blankets of sands and gravels over top of till (FGb). In a few areas, postglacial streams have incised into outwash plains and fans transforming them into terraces (FGt) and creating erosional slopes (FGk). In general, glaciofluvial materials created well-drained and relatively dry sites due to the highly porous and permeable sands and gravels. The material is non-cohesive and therefore erodible, and will tend to ravel when exposed on steep slopes and road cuts. Glaciofluvial sands and gravels are potential sources of aggregate.

In the study area, glaciofluvial materials consisted of gravely sands with minor amounts of silt. These deposits ranged from well stratified to unstratified and well-sorted to moderately-sorted. Large deposits of glaciofluvial sediments were common on the lowers slopes throughout the study area.

Lacustrine (L)

Lacustrine materials were deposited from standing bodies of water. Fine sand, silt, or clay that have been suspended in the water settle to the lake bed creating sediments that are commonly stratified and fine textured. These sediments may be exposed when the lake is drained. In the study area, lacustrine materials occurred in shallow ponds that are periodically inundated (szLp and szLv). Sediments are also deposited at the margins lakes by wave action, such as on the beaches of Okanagan and Duck Lakes. These materials generally consisted of sand and gravel.

Glaciolacustrine (L^G)

Glaciolacustrine materials were deposited from glacial or ice-dammed lakes that were present during and shortly after glaciation. Glaciolacustrine materials generally consist of well to moderately well stratified fine sand, silt, or clay with occasional lenses of till or glaciofluvial material.

Glaciolacustrine materials are generally only slowly permeable, and so the presence of even a thin layer of this material is sufficient to cause impeded drainage, perched water tables, and surface seepage. These conditions may promote instability in some situations. These fine-textured materials are also susceptible to surface erosion by running water.

In the study area, Glacial Lake Penticton, at its maximum, reached a level of about 500 m above sea level[66]. Large deposits from this glacial lake are present in the Glenmore area, south of the airport, lower slopes between East Kelowna and Okanagan Mission and scattered locations along the Okanagan Lake shoreline.

Till (M)

Till was deposited directly by glacier ice and typically consists of poorly sorted silt, sand and gravels. In general, till on slopes is well drained and moderately-well drained, and imperfectly drained in depressions.

On the mid to upper slopes, discontinuous veneers and blankets of till cover much of the gentle to moderately steep slopes. Patches of very thin veneers of till cover areas of undulating bedrock.

Throughout the study area, the typical till was a noncohesive, silty sandy basal till (terrain texture label "zds" or "dzs"). A finer textured basal till (terrain texture label "smd") was observed in some soil pits and road cuts.

Organics (O)

Organic materials form where decaying plant material accumulates in poorly or very poorly drained areas. In the study area, organic materials are uncommon, but may occur as veneers (Ov) or very thin veneers (Ox) in some of the wetlands.

Undifferentiated Material (U)

This material type is used to describe material that is too complex to be represented by the usual terrain symbols. Undifferentiated material is a layered sequence of surficial materials that have been exposed on an erosional slope. There is usually a sequence of three or more layers. In the study area, this symbol is used to map thick sequences of surficial materials in various locations along the lower slopes.

Bedrock (R)

Bedrock was mapped where it outcrops at the surface. Polygons mapped with thin or very thin material (Cv, Dx, Mv, Mx), may also have a small proportion of bedrock outcrops. Bedrock outcrops are scattered throughout the study area.

[66] Nasmith, 1962

Description of Geological Processes

Geological Processes	
Code	**Name**
-E	Glacial meltwater channels
-F	Slow mass movement (failing, slumps)
-F"	Slow mass movement initiation zone
-Fx	slump-earthflow
-Fm	slump in bedrock
-Fu	slump in surficial materials
-G	Ground disturbance
-H	Kettled
-L	Surface seepage
-R	Rapid mass movement (slides and falls)
-R"	Rapid mass movement initiation zone
-Rb	Rockfall
-Rs	Debris slide
-Ru	Slump in surficial materials
-U	Inundation
-V	Gully Erosion

Drainage	
Code	**Name**
x	very rapidly drained
r	rapidly drained
w	well drained
m	moderately well drained
i	imperfectly drained
p	poorly drained
v	very poorly drained

Where two drainage classes are shown:

- if the symbols are separated by a comma, e.g., "w,i", then no intermediate classes are present;
- if the symbols are separated by a dash, e.g., "w-i", then all intermediate classes are present.

Channeled by Meltwater (-E, -EV)

Meltwater channels form alongside, beneath, or in front of a glacier or ice sheet. Glacial meltwater channels are typically sinuous in plan, flat-floored, and steep-sided in cross-section. The floors of the meltwater channel may contain glaciofluvial sediments, indicative of the water flow that once took place here. Many meltwater channels are located within the study area and range from large to small and are incised through bedrock and surficial materials.

Slow Mass Movement (-F, -F"x, -F"m, -F"u)

Slow mass movement refers to slope failures where movement occurs slowly or where the displaced material moves only a short distance downslope. The double prime symbol (") indicates the initiation zone of slow mass movement, and when the double prime symbol is absent from the geomorphological symbol, this indicates the runout and deposition zone. Slump - earthflows are indicated by the subclass "x" (-Fx). Failures occurring in bedrock are indicated by the subclass "m" (e.g. –Fm). Failures occurring in thick surficial materials are indicated by the subclass 'u' (e.g. -Fu).

A slump-earthflow (-Fx) is a combined slump (upper part) and earthflow (lower part). This process is mapped in three polygons (2351, 2238 and 2448) within the study area and tends to occur in glaciolacustrine sediments.

A slump in bedrock (-Fm) refers to a rotational slump where portions of the slide mass remains internally cohesive. Rotational slumps develop due to failure along vertical joints and horizontal weak layers. This process is mapped in polygon 2949.

Slumps in surficial materials (-Fu) consist of deep-seated, rotational failures along a zone of weakness within thick deposits. Slumping in fine-grained sediments, such as, glaciolacustrine materials are common. In the study area, this process is mapped in 9 polygons containing glaciolacustrine sediments and one polygon consisting of till.

Ground Disturbance (-G)

Ground disturbance refers to anthropogenic excavations where the remaining exposed surface has remained undisturbed and is *in situ*; for example, the cutslopes in gravel pits, housing developments, and road cuts.

Kettled (-H)

Kettled topography consists of hummocky undulating terrain, which developed when blocks of glacial ice buried by or surrounded by glaciofluvial gravels and ablation till melted.

Surface Seepage (-L)

Seepage is mapped where relatively wet soils are widespread in a polygon. This commonly occurs where soils are on slowly permeable materials such as till, where thin surficial materials overlie bedrock, and on lower slopes where shallow subsurface water is received from a relatively large catchment area further upslope. They may also occur where groundwater is concentrated at the surface by a physical conduit such as a geological fault. In the study area, areas of abundant surface seepage were uncommon and generally spread throughout the study area. An example of seepage in the study area is along Swamp Road.

Rapid Mass Movement (-R, -R”b, -R”s, -R”u)

Rapid mass movement refers to downslope movement by falling, rolling or sliding of debris derived from surficial material or bedrock. Where a double prime symbol (**”**) is used with a mass movement process (e.g., -R”s), slope failure has initiated within the polygon. Mass movement symbols without the double prime symbol (e.g., **-**Rb) indicate a polygon that contains the transport or deposition zone of rapid mass movement. Transportation zones are generally not recognized as areas where landslides initiate; they may contribute additional volume of transported material to a failure. Transport and deposition zones represent hazardous areas downslope of slides or rockfall.

Rockfall (-Rb, -R”b) occurs when either a single block or a mass of bedrock falls, bounces and rolls downslope. In the study area, rockfall from local outcrops created talus slopes, colluvial veneers and blankets. Polygons with rockfall were scattered throughout the study area in association with local bedrock outcrops or cliffs.

Debris slides (-Rs) (non-channelized movement of debris) and debris flows (channelized movement of debris) are initiated on steep slopes where material slides along a shear plane. The shear plane often coincides with the boundary between more permeable and less permeable material (e.g., between weathered and unweathered material or between surficial material and bedrock). Debris flows and debris slides are triggered by heavy rain, water from snow melt, or rain on snow events, and result from loss of soil strength due to high pore water pressure. During wet conditions, slides are also triggered by wind stress on trees, tree throw, impact of falling rocks from up slope, and vibrations due to earthquakes or human activity. In logged areas, debris slides that occur several years after tree removal can be due to the loss of soil strength that results from root decay. Diverted drainage from roads commonly triggers failure of sidecast material and may initiate landslides some distance downslope. A debris flow may move downslope for several hundred metres or more before it is arrested by gentler terrain or by de-watering, or it may enter a trunk stream. Debris flows are effective agents of erosion, commonly increasing the volume of material as it progresses downslope. Debris slides and debris flows are significant potential sources of stream sediment and a hazard to activities or structures (roads, culverts) located in

runout zones. Debris flows are not mapped in the study area but could be triggered when a debris slide entered a creek. In the study area, debris slides are common (mapped in 45 polygons) especially on steep slopes, commonly gully walls, consisting of thick surficial materials.

In the study area, debris slides and flows are not common. These processes tend to occur on steep slopes, including gullies. The presence of colluvial fans and cones at the mouths of gullies indicate post-glacial mass movement.

Debris Slumps (-Ru): see section on Slow Mass Movement.

Inundation (-U)

Inundation refers to areas that are seasonally flooded, for example marshlands.

Gully Erosion (-V)

Gullies are small ravines with V-shaped cross sections that can form in either glacial drift or bedrock. Gully erosion is mapped in two kinds of terrain: (i) slopes with several parallel shallow gullies in drift materials (dissected slope) and (ii) single gullies where streams have exploited joints in bedrock or have cut down into thick drift. Gullied terrain is an indicator of either former or active erosion, and the symbol serves to identify material that is potentially subject to erosion or mass movement (e.g., Uk-V). Gully side slopes and steep headwalls are common sites of slope failures and are classed as potential unstable (Class IV) where there is no evidence of instability and unstable (Class V) where there is evidence of instability. In the study area, gully erosion is mapped in polygons scattered throughout the study area.

Slope, Soil Erosion Potential Classes, Terrain Stability Classes and Hazardous Conditions Classes

Slope Range
Slopes are given in percentages as a range. For example, '20-45' indicates that the majority of the slopes in the polygon are between 20% and 45%.

Soil Erosion Potential Classes[67]		
Class	**Rating**	**Management Implications**
VL	Very low	• Negligible or very minor soil erosion.
L	Low	• Expect minor erosion of fines in ditch lines and disturbed soils.
M	Moderate	• Expect moderate erosion when water is channelled down road surfaces or ditches and over exposed soils.
H	High	• Significant erosion problems can be created when water is channelled onto or over exposed soil on these sites.
VH	Very high	• Severe surface and gully erosion problems can be created when water is channelled onto or over exposed soils at these sites.

Terrain stability Classes[68]	
Class	**Interpretation**
I	• No significant stability problems exist.
II	• There is a low likelihood of landslides following disturbance or development. • Minor slumping is expected along road cuts and excavations.
III	• Stability problems can develop. • Follow BMP to reduce the likelihood of causing slope failure. • Minor slumping is expected along road cuts and excavations. There is a low likelihood of landslide initiation following road construction. • On-site inspection required by geotechnical staff.
IV	• Expected to contain areas with a moderate likelihood of landslide initiation following development, disturbance or road construction. • These areas should be avoided. Use caution when planning intensive land use above or below these areas. • On-site inspection required by geotechnical staff
V	• Expected to contain areas with a high likelihood of landslide initiation. Signs of existing instability present. • Avoid these areas. Do not plan intensive land use above or below these areas. • On-site inspection required by geotechnical staff

[67] Adapted from Ministry of Forests 1999
[68] Adapted from Ministry of Forests 1999

Hazardous Conditions Classes		
Class	**SEP and TSC Class***	**Management Implications**
L low	SEP **VL** or **L** TSC **I** or **II**	• Minor erosion of fines in ditch lines and disturbed soils **and** • Low likelihood of landslides following disturbance or development
M moderate	SEP **M** TSC **III**	• Moderate erosion when water is channelled down road surfaces or ditches and over exposed soils - assessment by qualified sediment and erosion control professional recommended **and/or** • Low likelihood of landslides following disturbance or development – assessment by qualified geotechnical professional recommended.
H high	SEP **H** or **VH** TSC **IV** or **V**	• Significant erosion problems can be created when water is channelled onto or over exposed soil on these sites - assessment by qualified sediment and erosion control professional highly recommended **and/or** • Moderate to high likelihood of landslides following disturbance or development; signs of existing instability may be present - assessment by qualified geotechnical professional highly recommended.

***SEP** – Soil Erosion Potential, **TSC** – Terrain Stability Class