Land Unit:Quaternary alluvium, minor
river terracesLand Unit symbol:Qam% of study area:2.9



General Description:

Yellow Creek, Swamp Creek, Little River and Cerberus Creek are four major tributaries of the Acheron River that have developed an alluvial terrace of any significance. The soils, by nature of the variables involved, are themselves variable, however all are subjected to seasonal flooding or waterlogged conditions and all are susceptible to gully or streambank erosion. Any change in land use or land management practices within the catchment may increase the volume of water entering these alluvial land units thereby increasing the hazard of degradation.

Site	chara	icteri	stics:
NILL.	ciiui u		SULCO

Site No. 140 (57, 123)

Parent material		Depth to seasonal		
Age:	Quaternary	watertable:	1.5 m	
Lithology:	Alluvium	Potential recharge		
Landform		to groundwater:	Low	
Pattern:	Floodplain	Flooding risk:	High	
Element:	Terrace	Drainage:	Poorly drained	
Slope		Depth to hardrock:	1.5 m	
Common:	2%	Rock outcrop:	0%	
Range:	1 - 4%	Annual rainfall:	940 mm	
Native vegetation: Candlebark Gum. River Red Gum, Blackwood, Silver Wattle				
Present land use:	sent land use: Restricted because of seasonal wet conditions - grazing of native/improved pastures			

Land degradation:

Degradation	Water e	rosion	Wind progion	Calting	Asidification
process	Sheet/rill	Gully	wind erosion	Satting	Acidification
Susceptibility	Low	Moderate	Low	Moderate	Moderate
Incidence	Low	Low	Nil	Low	Low

Soil profile characteristics:

Permeability	(measured - average, range): (estimated):	5 (1 - 10) mm/day
Available water capacity:		220 mm H ₂ O
Linear Shrinkage (B horizon):		15%

Soil profile description:

Land Unit symbol: Qam

- A 0-15 cm Dark brown (7.5YR4/2) clay loam, fine orange root-hair mottling, moderate subangular blocky structure, peds 3 mm, moderately firm consistence dry, very few quartz gravel fragments, moderate organic matter, pH 5.4. Clear transition to:
- B1 15 43 cm Dark reddish grey (5YR4/2) sandy clay, many fine faint orange mottles, strong subangular blocky structure, peds 3 mm, smooth fabric, moderately firm consistence dry, many ironstone gravel fragments, pH 5.8. Clear transition to:
- B2 43 89 cm Brown (7.5YR5/2) light medium clay, many medium distinct red mottles, strong angular blocky structure, smooth fabric, very firm consistence slightly moist, quartz gravel fragments are common, pH 5.8. Gradual transition to:
- C 89-130⁺cm Light grey (2.5YR7/2) sandy clay loam, many medium distinct orange mottles, apedal massive (structure), sandy fabric, very firm consistence slightly moist, quartz gravel fragments are common, pH 5.9.

Soil classification:

Factual Key (Northcote, 1979):	Gn 3.91 - 4/2/015
Australian Soil Classification (Isbell, 1992):	Mottled, Mesotrophic, Grey, Dermosol; medium, non-
	gravelly, clay loam/clay, moderate
Unified Soil Group:	MH/ML

Interpretation of soil analyses: (see Appendix 2 for analytical results)

Horizon	рН	Gravel %	E.C. (salts)	Nutrient status	Р	K	Al	Organic matter	Dispersibility
А	5.4 **	1	VL	L	D	S	Т	М	М
B1	5.8	25	VL	VL	D	D	S	VL	М
B2	5.8	10	VL	L	D	D	Т	VL	L
С	5.9	16	VL	L	D	D	Т	VL	L
VL: Very Lo	ow I	L: Low	M: T:	Moderate	H	High	ailable	VH: Very H	igh

Land capability ratings and limitations for specific land uses:

Land use	Rating	Major limiting factor(s)
Agriculture	C ₃ T ₂ S ₅	Low permeability : rainfall index, depth to seasonal water table 1 - 1.5 metres
Building foundations		
- slab	5	Poor - very poor drainage, highly susceptible to flooding
- stumps/footings	5	Poor - very poor drainage, highly susceptible to flooding
Effluent disposal	E	Poor - very poor drainage, very low permeability, highly susceptible to
(septic tanks)	5	flooding, average daily rainfall > Ksat for 3 months per year
Farm dams	5	Very low suitability of subsoil, depth to seasonal watertable < 2 metres,
Posidontial rural	5	Vary law conchility for huilding foundations offluent disposal form
Kesidentiai - Turai	5	dome and accordance roads
urban	F	Vans law secondary roads
- urban	3	very low capability for building foundations and secondary roads
Scenic value	2 & 3	-
Secondary roads	5	Poor - very poor drainage, highly susceptible to flooding