Land Unit:Tertiary fan, drainage depressionLand Unit symbol:Tfg% of study area:4.4



General Description:

A large number of drainage depressions, originating from adjacent, more-elevated land, traverse the colluvial land units identified as Tf. Considerable variation occurs - some drainage depressions are broad and gently concave with a very gentle gradient, others are deeply incised, have a steep gradient and transport large volumes of water during the wetter months of the year. Alluvial terraces of uniform loam sometimes occur on the lower slopes where the gradient is gentle and the drainage depressions has broadened out, however the area involved is usually too small to be significant. All drainage depressions are subject to seasonal flooding.

Site characteristics:

Site No. 138

Parent material		Depth to seasonal		
Age:	Tertiary	watertable:	< 1 m	
Lithology:	Colluvium	Potential recharge		
Landform		to groundwater:	Low	
Pattern:	Undulating rises	Flooding risk:	High	
Element:	Drainage depression	Drainage:	Poorly drained	
Slope		Depth to hardrock:	> 2 m	
Common:	3%	Rock outcrop:	0%	
Range:	2 - 5%	Annual rainfall:	940 mm	
Native vegetation: Candlebark Gum, Swamp Gum, Blackwood, Burgan, Common Cassinia				
Present land use:	Cleared; native and improved pastures for sheep and cattle production			

Land degradation:

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

Soil profile characteristics:

Permeability	(measured - average, range): (estimated):	- Slow (10 - 50 mm/day)
Available water capacity:		280 mm H ₂ O
Linear Shrinkage (B horizon):		12 - 14% (est.)

Soil profile description:

Land Unit symbol: Tfg

A11	0 - 7 cm	Dark brown (10YR3/3) silty loam, weak subangular blocky structure, peds 4 mm, rough fabric, very weak consistence - moist, high organic matter, pH 4.8. Abrupt transition to:
A12	7 - 16 cm	Dark greyish brown (10YR4/2) silty loam, apedal massive (structure), earthy fabric, moderately weak consistence - moist, moderate organic matter, pH 5.3. Clear transition to:
A2b	16 - 33 cm	Brown (10YR5/3) silty loam, conspicuously bleached (7.5YR7/2 - dry), apedal massive (structure), earthy fabric, moderately weak consistence - moist, pH 5.5. Gradual transition to:
B1	33 - 79 cm	Brownish yellow (10YR6/6) light medium clay, many coarse distinct grey/orange mottles, apedal massive (structure), earthy fabric, moderately weak consistence - moist, pH 5.3. Clear transition to:
B2	79 - 140 cm	Light brownish grey (10YR6/2) medium heavy clay, many fine distinct red/orange mottles, strong angular blocky structure, peds 30 mm, smooth fabric, pH 5.3. Clear transition to:
С	140^+ cm	Grey (10YR6/1) sandy clay, many very coarse orange mottles, apedal massive (structure), sandy fabric, sandstone cobbles are abundant, pH 5.3.

Soil classification:

Factual Key (Northcote, 1979):	Gn 3.84 - 3/1/033
Australian Soil Classification (Isbell, 1992):	Bleached - Mottled, Magnesic, Yellow, Dermosol; thick,
	non-gravelly silty/clayey, very deep
Unified Soil Group:	CL

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

Horizon	рН	Gravel %	E.C. (salts)	Nutrient status	Р	К	Al	Organic matter	Dispersibility
A11	4.8 **	< 1	VL	L	S	S	Т	VH	Н
A12	5.3 **	< 1	VL	VL	D	D	Т	VH	Н
A2b	5.5	< 1	VL	VL	D	D	Т	М	VH
B1	5.3 **	< 1	VL	VL	D	D	Т	VL	L
B2	5.5	< 1	VL	VL	D	D	Т	VL	L
С	5.3 **	< 1	VL	VL	D	D	Т	VL	L
VI · Very Low I · Low			M	Moderate	H	High		VH∙ Verv H	igh

D: Deficient S: Satisfactory T: Toxic NA: Not Available ** Acidic

Land capability ratings and limitations for specific land uses:

Land use	Rating	Major limiting factor(s)
Agriculture	C ₃ T ₂ S ₅	Depth to seasonal water table < 1 metre, low permeability : rainfall index, seasonal overland water flow
Building foundations		
- slab	5	Poor - very poor drainage, depth to seasonal water table < 1 metre,
- stumps/footings	5	seasonal overland water flow
Effluent disposal (septic tanks)	5	Poor - very poor drainage, depth to seasonal water table < 1 metre, low permeability, seasonal overland water flow
Farm dams	5	Depth to seasonal water table < 2 metres, low suitability of subsoil
Residential - rural	5	Very low capability for building foundations, effluent disposal, farm
		dams and secondary roads
- urban	5	Very low capability for building foundations and secondary roads
Scenic value	3,4 & 5	Low Scenic Quality and some areas have a low Public Sensitivity Level
Secondary roads	5	Poor - very poor drainage, seasonal water table at < 0.5 metre, highly susceptible to flooding