



A. GENERAL DESCRIPTION

The yellow granitic soils occur mainly in the north of the Shire; rock outcrop is common on the rolling low hills. The common soil type is a duplex profile with a mottled, yellow subsoil and A2 horizons are usually absent. The soil is generally strongly acidic and potentially toxic in aluminium and has a very low nutrient status. Depth of soil is variable, with shallow soils occurring just off the crests and deeper soils occurring down the slope. Much of this component is vegetated therefore the incidence of land degradation is low. Susceptibility to mass movement is high only on the deeper soils. When the soils are shallow, and the water holding capacity is low, susceptibility to mass movement is low.

SITE CHARACTERISTICS

Parent Material Age:	Devonian	Depth to Seas. Watertable:	>5.0 m
Parent Material Lithology:	Granite, Granodiorite	Flooding Risk:	Nil
Landform Pattern:	Rolling low hills	Drainage:	Moderately well drained
Landform Element:	Hillslope	Rock Outcrop:	10-40%
Slope a) common:	24%	Depth to Hard Rock:	>1.5 m
Slope b) range:	21-32%	Present Land Use:	Grazing, partly forested
Potential Recharge to Groundwater:	Moderate		
Major Native Vegetation Species:	Narrow-leaved Peppermint, Blackwood, Manna Gum, Bracken Fern, Kangaroo Grass, Chinese Scrub, Broad-leaved Peppermint, Silver Wattle		

LAND DEGRADATION

Land Degradation	Water Erosion		Wind Erosion	Mass Movement	Salting	Acidification
	sheet/rill	gully				
Susceptibility	Moderate	Moderate	High	High	Very low	Low
Incidence	Low	Low	Low	Low	Nil	Not available

B. SOIL PROFILE

PROFILE DESCRIPTION

A10	0-100 mm	Dark brown (7.5YR3/2) fine sandy loam, moderate granular structure, peds less than 2 mm, rough fabric, loose consistence, less than 2% fine rounded granitic and quartz gravel fragments, pH 5.5. Gradual transition to:
A11	100-180 mm	Brown (7.5YR4/2) sandy loam, weak subangular blocky structure, peds 2-5 mm, rough fabric, moderately weak consistence, a few organic segregations throughout, pH 6.0. Gradual transition to:
A12	180-270 mm	Greyish brown (10YR5/2) sandy loam, less than 2% faint orange and yellow mottles, moderate subangular blocky structure, peds 5-10 mm, rough fabric, moderately weak consistence, a few organic segregations throughout, pH 6.5. Clear transition to:

- A13** 270-610 mm Brown (10YR5/3) sandy loam, medium faint orange and yellow mottles are common, weak subangular blocky structure, peds 20-50 mm, rough fabric, moderately firm consistence, a few organic segregations throughout, a few fine subrounded granitic and quartz fragments, pH 6.0. Clear transition to:
- A3** 610-980 mm Brown (10YR5/3) heavy loam, many coarse distinct yellow, orange and light grey mottles, apedal, sandy fabric, moderately weak consistence, a few organic segregations throughout, less than 2% fine subrounded granitic and quartz gravel fragments, pH 6.0. Abrupt transition to:
- B21** 980-1250 mm Light brownish grey (10YR6/2) light clay, with coarse sand, coarse prominent orange and grey mottles are abundant, moderate angular blocky structure, peds 10-20 mm, smooth fabric, moderately weak consistence, a few organic segregations throughout, pH 5.5. Diffuse transition to:
- B22** 1250-1450 mm+ Light brownish grey (10YR6/2) light clay with coarse sand, coarse prominent orange and grey mottles are abundant, moderate angular blocky structure, peds 10-20 mm, smooth fabric, pH 5.5.

CLASSIFICATION

Factual Key:	Dy3.11
Australian Soil Classification:	Mottled, Magnesian, Grey Chromosol; very thick, non-gravelly, loamy/clayey, very deep
Unified Soil Group:	CL

INTERPRETATION OF LABORATORY ANALYSIS*

Horizon	pH (CaCl ₂)	% Gravel	E.C. (salts)	Nutrient Status	P	K	Al	Organic matter	Dispersibility
A10	4.1**	1.5	VL	VL	D	D	T	H	L
A11	4.3**	<1	VL	VL	D	D	T	M	L
A12	4.3**	<1	VL	VL	D	D	T	L	L
A13	4.4**	3.2	VL	VL	D	D	T	VL	L
A3	4.3**	1.2	VL	VL	D	D	T	VL	L
B21	4.2**	<1	VL	VL	D	D	T	VL	L

VL: Very Low L: Low M: Moderate H: High VH: Very High D: Deficient S: Satisfactory
 T: Potentially Toxic NA: Not Available * see appendix D for analytical results ** Strongly Acidic

SOIL PROFILE CHARACTERISTICS:

Permeability: Moderate (estimate)
Available Water Capacity: Very high (228 mm H₂O)
Linear Shrinkage (B horizon): Very low (4%)

C.

Land Use	Class	Major Limiting Feature(s)/Land Use
Agriculture	C ₂ T ₄ S ₄	Slope, condition of topsoil, boulder content, susceptibility to wind erosion.
Effluent Disposal (septic tanks)	4	Slope
Farm Dams	5	Slope
Building Foundations slab	4	Slope, boulder content, susceptibility to slope failure
stumps/footings	4	Boulder content, susceptibility to slope failure