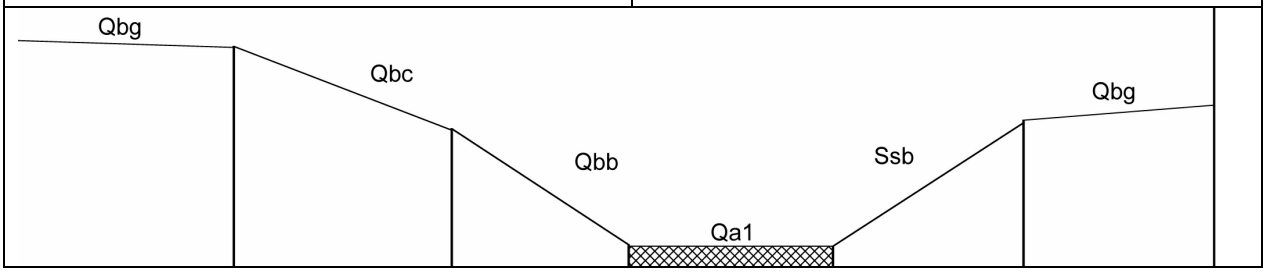
MAP UNIT SYMBOL: **Qa1** Area: 14 240 ha	MAP UNIT: Q**uaternary, alluvium, terrace**



A. GENERAL DESCRIPTION

Much of the alluvium in the Shire has originated from Quaternary basalt and Ordovician or Silurian sediments. The alluvium terraces are found along Deep Creek, Riddells Creek and the major tributaries. The soils are varied although clay loam topsoils over clayey subsoils predominate. Lighter textured gradational and uniform soils also occur. Some sections of the alluvial terraces have not been mapped due to their small size.

SITE CHARACTERISTICS

Parent Material Age:	Quaternary	**Depth to Seas. Watertable:**	>1.1 m
Parent Material Lithology:	Alluvium	**Flooding Risk:**	Moderate - Low
Landform Pattern:	Terrace	**Drainage:**	Moderately well drained
Landform Element:	Terrace Flat	**Rock Outcrop:**	0%
Slope a) common:	2%	**Depth to Hard Rock:**	>2.0 m
Slope b) range:	0-3%	**Present Land Use:**	Grazing
Potential Recharge to Groundwater:	Low		
Major Native Vegetation Species:	River Red Gum		

LAND DEGRADATION

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

B. SOIL PROFILE

PROFILE DESCRIPTION

A11 0-180 mm Very dark greyish brown (10YR3/2) clay loam with fine sand, strong subangular blocky structure, peds 2-5 mm, rough fabric, moderately firm consistence, pH 6.0. Gradual transition to:

A12 180-340 mm Very dark greyish brown (10YR3/2) clay loam with fine sand, moderate subangular blocky structure, peds 5-10 mm, rough fabric, moderately firm consistence, pH 6.5. Clear transition to:

A3 340-610 mm Dark grey (10YR4/1) fine sandy clay loam, moderate subangular blocky structure, peds 10-20 mm, rough fabric, moderately weak consistence, pH 7.0. Clear transition to:

B21 610-820 mm Very dark greyish brown (10YR3/2) medium heavy clay with fine sand, medium distinct orange mottles are common, strong angular blocky structure, peds 20-50 mm, rough fabric, moderately weak consistence, pH 7.0. Clear transition to:

B22 820-1020 mm+ Dark grey (10YR4/1) medium heavy clay with fine sand, a few medium, faint orange mottles, strong angular blocky structure, peds 20-50 mm, rough fabric, moderately weak consistence, pH 7.0.

CLASSIFICATION

Factual Key:	Dd2.21 (major), Gn4.42, Um6.11 (minor).
Australian Soil Classification:	Mottled-subnatric, Eutrophic, Black Sodosol; thick, non-gravely, clay 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
A11	4.6	<1	VL	L	S	D	S	H	L
A12	5.3	<1	VL	L	S	D	S	H	L
A3	5.8	<1	VL	L	S	D	S	L	H
B21	5.8	<1	VL	M	D	D	S	L	H
B22	6.3	<1	VL	M	D	D	S	L	H

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:	Slow (average 40 mm/day, range 20-60 mm/day)
Available Water Capacity:	Very high (297 mm H_2O)
Linear Shrinkage (B horizon):	Low (7%)

C. LAND CAPABILITY ASSESSMENT

Land Use	Class	Major Limiting Feature(s)/Land Use
Agriculture	C_2 T_1 S_3	Susceptibility to gully erosion
Effluent Disposal (septic tanks)	4	Permeability
Farm Dams	3	Depth to seasonal watertable
Building Foundations		
slab	3	Drainage, flood risk
stumps/footings	3	Drainage, flood risk