

WAH Waroonee Hill Land System

Area: 17 km²

Landscape: The Waroonee Range occupies the entire land system, which is north-west of Yunta. The range varies from very steep hills to undulating rises formed mostly on quartzite. It is non-arable.

Annual rainfall: 225 - 250 mm average

Geology: Proterozoic sandstones, quartzites and siltstones of the Pound Subgroup.

Main soils:

- L1a** Shallow stony sandy loam
- RR** Rock outcrop
- C2** Gradational sandy loam on rock

Minor soils:

- A2** Shallow calcareous loam to sandy loam
- A4** Deep (rubbly) calcareous sandy loam
- D1** Loam over clay on rock
- L1b** Shallow stony loam

Summary: The Waroonee Hill Land System is an elongate, cigar-shaped range of steep hills, based on Pound Quartzite, with shallow rocky soils and rock outcrops.

Soil Landscape Unit summary: 7 Soil Landscape Units (SLUs) mapped in the Waroonee Hill Land System:

SLU	% of area	Component	Main soils	Prop#	Notes
ADB	6.8	Rolling rises	L1RR D1	D	Non-arable rolling rocky rises formed on limestones and calc-siltstones such as Wonoka Formation rocks with very shallow loamy textured, rocky soils and rock outcrop. Relief: 9-30m, slopes: 10-30%. Main soils: <u>shallow stony loam</u> - L1b , <u>rock outcrop</u> - RR and <u>loam over (pedaric) clay on rock</u> - D1 , with <u>shallow calcareous loam</u> - A2 and <u>gradational loam on rock</u> - C2 .
AQB	27.1	Rolling rises	L1RR C2	D	Rises formed on quartzite with shallow rocky soils. AQB Rolling rises. Relief is less than 30m, slopes are 10-30%. Limited grazing land use.
AQC	10.5	Rolling hills	L1RR C2	D	AQC Rolling low hills. Relief is greater than 30m, slopes are 10-30%.
AQD	11.7	Steep low hills	L1RR C2	D	AQD Steep low hills with extensive rock outcrop. Relief is 30-90m, slopes are 30-60%. Limited grazing use.
AQE	22.3	Steep hills	L1RR C2	D	AQE Steep hills with mostly rock outcrop or very shallow loam. Relief is greater than 90m, slopes are 30-60%.
AQF	10.1	Very steep hills	L1RR	D	AQF Very steep hills. Relief is 90-300m, slopes are 60-100%. Main soils: <u>shallow stony sandy loam</u> - L1a and <u>rock outcrop</u> - RR , with <u>gradational sandy loam on rock</u> - C2 and <u>shallow calcareous loam</u> - A2 .
AWB	11.6	Undulating rises	L1RR A2	D	Undulating rises with shallow rocky soils formed on quartzites with more than 50% interbedded calcareous rocks. Relief is less than 30m, slopes are 3-10%. Main soils: <u>shallow stony sandy loam</u> - L1a , <u>shallow calcareous loam</u> - A2 and <u>rock outcrop</u> - RR , with <u>deep (rubbly) calcareous sandy loam</u> .



PROPORTION codes assigned to Soil Landscape Unit (SLU) components:

D	Dominant in extent (>90% of SLU)	C	Common in extent (20–30% of SLU)
V	Very extensive in extent (60–90% of SLU)	L	Limited in extent (10–20% of SLU)
E	Extensive in extent (30–60% of SLU)	M	Minor in extent (<10% of SLU)

Detailed soil profile descriptions:

- A2** Shallow calcareous loam to sandy loam (Paralithic, Hypercalcic / Lithocalcic Calcarosol)
Calcareous stony loam to sandy loam grading to soft or rubbly carbonate over weathering dolomite or calc-siltstone within 50 cm.
- A4** Deep (rubbly) calcareous sandy loam (Regolithic, Hypercalcic / Lithocalcic Calcarosol)
Calcareous sandy loam grading to a very highly calcareous sandy clay loam to light clay with variable rubble, continuing below 120 cm.
- C2** Gradational sandy loam on rock (Calcic / Hypercalcic Red Dermosol)
Sandy loam to loam grading to a friable red clay with soft Class I carbonate within 50 cm, grading to weathering rock within 100 cm.
- D1** Loam over clay on rock (Hypercalcic / Calcic, Red Chromosol / Sodosol)
Medium thickness hard gravelly loam over red clay, friable and finely structured, calcareous with depth, grading to weathering basement rock within 100 cm.
- L1a** Shallow stony sandy loam on quartzite (Paralithic, Leptic Tenosol)
Shallow stony sandy loam, often calcareous with depth, overlying quartzite shallower than 50 cm.
- L1b** Shallow stony loam on fine grained rock (Paralithic, Leptic Tenosol)
Shallow stony loam, often calcareous with depth, overlying weathering fine grained rock shallower than 50 cm.
- RR** Rock outcrop

Further information: [DEWNR Soil and Land Program](#)

