CWH Coolawatinnie Hill Land System

Ranges and pediments east of Paratoo, which extend beyond the mapped area

Area: 19.8 km²

Annual rainfall: 225 – 245 mm average

Geology: The ranges are mostly formed on Ulupa Siltstone, which often outcrops

Soils: Soils on the ranges are shallow and stony with loamy surfaces. Deeper texture

contrast and gradational soils with clay loamy surfaces occur on pediments.

Main soils:

On rock

L1 Shallow stony loam

RR Rock outcrop On pediment outwash

A5 Rubbly calcareous clay loam on clay

D4 Clay loam over pedaric red clay

Minor soils:

On rock

A2 Shallow calcareous loam

B2 Shallow calcareous loam on calcrete

C2 Gradational loam on rock

D1 Loam to clay loam over clay on rock

D7 Clay loam over poorly structured clay on rock

On pediment outwash

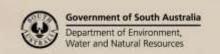
A3 Deep moderately calcareous loam

Summary: Ranges and pediments east of Paratoo. The ranges are characterized by shallow

stony soils and extensive rock outcrop. The pediments have mostly deep clay loamy soils, both calcareous and non calcareous. Gully erosion and scalding are common.

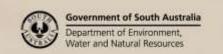
Soil Landscape Unit summary: 14 Soil Landscape Units (SLUs) mapped in Coolawatinnie Hill Land System:

SLU	% of area	Component	Main soils	Prop#	Notes
AAh	6.0	Rolling rises	L1RR A2	D	Rolling rises with shallow rocky often calcareous, loam soils on rock or bare rock outcrop. 5-10% of land is affected by eroded watercourses and scalding affects 10-50% of land. Relief is 9-30m, slopes are 10-30%. Main soils: shallow stony loam - L1, rock outcrop - RR and shallow calcareous loam - A2.
AED	5.0	Steep rises	L1RR	D	Non-arable rocky rises and low hills formed on mostly fine grained rocks, sometimes calcreted. Soils are very shallow. AED Steep rises. Relief is 9-30m, slopes are 30-50%. AEG Undulating rises with eroded watercourses (5-10% of land affected). Relief is less than 30m, slopes are 3-10%. AEJ Steep low hills with eroded watercourses (5-10% of land affected). Relief is 30-90m, slopes are 30-50%. Main soils: shallow stony loam - L1 and rock outcrop - RR, with loam over clay on rock - D1, shallow calcareous loam - A2 and shallow calcareous loam on calcrete - B2.
AEG	7.3	Undulating rises	L1RR	D	
AEJ	2.0	Steep low hills	L1RR	D	





AGA	6.9	Undulating	L1RR	D	Hills and rises formed on mostly fine grained rocks.
AGH	21.9	rises Rolling rises	L1RR	D	AGA Undulating rises with extensive rock outcrop. Relief is 9-30m, slopes are 3-10%.
AGH	21.9	Rolling rises	LIKK	D	AGH Rolling rises with extensive rock outcrop and eroded
					watercourses (5-10% of land affected). Relief is less than
					30m, slopes are 10-30%.
					Main soils: <u>shallow stony loam</u> - L1 and <u>rock outcrop</u> - RR ,
					with loam over clay on rock - D1.
AYD	3.1	Very steep	A2L1	D	Hills and rises on fine grained rocks, especially siltstones of
	01.	low hills	RR		the Tapley Hill Formation.
AYG	2.9	Undulating	L1RR	D	AYD Very steep low hills with extensive rock outcrop. Relief is
		rises			30-90m; slopes are 50-100%.
					Main soils are <u>shallow calcareous loam</u> - A2 , <u>shallow stony</u>
					<u>loam</u> - L1 and <u>rock outcrop</u> - RR.
					AYG Undulating rises with extensive rock outcrop and
					shallow soils, some on calcrete. 5-10% of land is gullied. Relief
					is less than 30m, slopes are 3-10%.
					Main soils: <u>shallow stony loam</u> - L1 and <u>rock outcrop</u> - RR,
					with <u>loam over clay on rock</u> - D1 .
DTl	3.1	Gently	D1D7	D	Gently undulating rises formed on fine grained rock. 10-30%
		undulating			very shallow or rock outcrop, with up to 20% outcrop.
		rises			Moderately gullied (5-10%) and scalded (5-10%). Slopes are
					1-3%, relief is less than 30m.
					Main soils: <u>clay loam over (pedaric) clay on rock</u> - D1 and
					<u>clay loam over poorly structured clay on rock</u> - D7 with <u>rock</u>
IDII	100	5 " .	5 / / 5		outcrop - RR and shallow stony loam - L1.
JPH	12.2	Pediments	D4A5	D	Pediments and plains formed on outwash sediments derived
					from basement rocks. Moderately gullied (10-20%). Slopes
					are 3-10%, relief is less than 9m.
					Main soils: <u>clay loam over pedaric red clay</u> - D4 and <u>rubbly</u>
					calcareous clay loam on clay - A5, with gradational loam on rock - C2.
JYv	11.8	Pediments	D4D1	D	Gently undulating pediments formed over fine grained
311	11.0	1 Call licins	D4D1		outwash and rock. Moderately gullied (10-20%), severely
			D,		scalded (over 50%). Slopes 1-3%, relief less than 9m.
					Main soils are: <u>clay loam over pedaric red clay</u> - D4 , <u>clay</u>
					loam over (pedaric) clay on rock - D1 and clay loam over
					poorly structured clay on rock - D7 , with rubbly calcareous
					<u>clay loam on clay</u> - A5 , with <u>gradational loam on rock</u> - C2 .
JZC	0.8	Pediments	D4A5	V	Complex of undulating pediments formed on fine grained
		Rocky	RR	М	outwash, and minor rocky outcrops. Slopes are 3-10%, relief
		outcrops			is less than 9m.
					Main soils:
					Pediments and plains: clay loam over pedaric red clay - D4
					and <u>rubbly calcareous clay loam on clay</u> - A5 with <u>deep</u>
					moderately calcareous loam - A3.
					Rocky rises: rock outcrop - RR, with shallow stony loam - L1.
KQl	11.0	Pediments	A5	٧	Complex of pediments formed on fine grained outwash,
		Low rises	A2	С	and 20-30% low rises formed on fine grained rocks.
					KQI Gently sloping pediments. Moderately saline subsoils,
					moderately scalded (10-50%) and 5-10% gullied. Slopes are
IZ O	, -	D. J.	4.5	.,	1-3%, relief is less than 9m.
KQm	6.1	Pediments	A5	V	KQm Moderately sloping pediments and undulating rises.
		Low rises	A2	С	Moderately saline subsoils, moderately gullied (10-20%) and
					scalded (5-10%). Slopes 3-10%, relief less than 9m.
					Main soils: Rediments: rubbly calcareous clay loam on clay. A5 with
					Pediments: rubbly calcareous clay loam on clay - A5 with clay loam over pedaric red clay - D4.
					Rises: shallow calcareous loam - A2 with shallow calcareous
					loam on calcrete - B2 and rock outcrop - RR.
	Ī	I	1	1	<u>ioam on caiclete</u> - bz and <u>iock outclop</u> - kk .





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

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

Detailed soil profile descriptions:

- A2 <u>Shallow calcareous loam (Paralithic, Hypercalcic / Lithocalcic Calcarosol)</u>
 Calcareous stony loam grading to soft or rubbly carbonate over weathering dolomite or calc-siltstone within 50 cm.
- A3 Deep moderately calcareous loam (Regolithic, Calcic Calcarosol)

 Calcareous loam grading to a loamy to clayey subsoil without a significant carbonate accumulation in the subsoil, grading to medium to fine grained alluvium.
- Rubbly calcareous clay loam on clay (Regolithic, Supracalcic / Hypercalcic Calcarosol)
 Calcareous clay loam grading to a very highly calcareous rubbly clay loam to light clay, over a clayey substrate deeper than 60 cm, but within 120 cm.
- Shallow calcareous loam on calcrete (Petrocalcic, Calcic / Lithocalcic Calcarosol)
 Stony calcareous loam, often with a very highly calcareous more clayey subsoil, over sheet calcrete within 50 cm. This grades to rubbly carbonate over weathering basement rock within 150 cm.
- C2 <u>Gradational loam on rock (Calcic / Hypercalcic Red Dermosol)</u>
 Loam grading to a friable red clay with soft Class I carbonate within 50 cm, grading to weathering rock within 100 cm.
- D1 Loam to clay loam over clay on rock (Hypercalcic / Calcic, Red Chromosol)
 Medium thickness hard gravelly loam to clay loam over a friable and finely structured red clay, calcareous with depth, grading to weathering basement rock within 100 cm.
- Clay loam over red friable clay (Calcic, Pedaric, Red Sodosol)

 Thin to medium thickness clay loam over a finely structured friable red clay, calcareous from about 50 cm, grading to fine or medium grained alluvium.
- Clay loam over poorly structured clay on rock (Calcic / Hypercalcic, Red Sodosol)

 Medium to thick hard clay loam sharply overlying a coarsely structured dispersive red clay, calcareous with depth, grading to highly weathered kaolinized siltstone or quartzite.
- L1 Shallow stony loam (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

