

# EMR Emeroo Land System

Steep dissected ranges and escarpments bounding the western edge of the Southern Flinders Ranges from Saltia to about 17 km south of Neuroodla. The mapped area represents the eastern edge of the system, most of which extends into the adjacent pastoral country.

<b>Area:</b>	18.9 km <sup>2</sup>
<b>Geology:</b>	Rhynie Sandstone (Pbr) on the west, and Skillogalee Dolomite (Pkb) on the eastern side.
<b>Topography:</b>	Steep to very steep hills with slopes usually more than 30% and up to 100%. Ridges and intervening valley floors are narrow. Rocky outcrops are sporadic and extensive in places.
<b>Elevation:</b>	Elevations of the foot of the escarpment range from 100 m in the south to 200 m in the north, while maximum elevations of the ridges range from 300 m in the south, peak at 750 m towards the north, and drop to 300 m at the northern extremity.
<b>Relief:</b>	Up to 300 m, but as low as 75 m
<b>Annual rainfall:</b>	240 – 470 mm average
<b>Soils:</b>	The soils are predominantly shallow sandy loams to loams over sandstone or siltstone/dolomite basement rocks.

#### Main soils

<b>L1a</b>	Shallow loam on rock - finer grained rocks such as siltstones
<b>L1b</b>	Shallow sandy loam on rock - coarser grained rocks such as sandstones
<b>A2</b>	Calcareous loam on rock - dolomites and calc-siltstones

#### Minor soils

<b>C2</b>	Gradational loam on rock
<b>D1</b>	Sandy loam over red clay on rock
<b>RR</b>	Rock outcrop

<b>Summary:</b>	The Emeroo Land System comprises very steep high ranges and escarpments which are strongly dissected with narrow ridges and valley floors. The soils are sandy loams to loams, generally shallow over basement rock. Minor deeper soils occur on narrow footslopes and fans. The steep topography is the main determinant of land use, with virtually no land suitable for cultivated agriculture. Grazing and conservation are the main uses.
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**Soil Landscape Unit summary:** 5 Soil Landscape Units (SLUs) mapped in the Emeroo Land System:

SLU	% of area	Main features #
ADE ADJ ADk	26.7 20.2 6.9	<p>Steep low hills and hills with rocky outcrops formed on Skillogalee Dolomite.</p> <p><b>ADE</b> Steep hills with slopes of more than 30% and relief exceeding 100 m.</p> <p><b>ADJ</b> 85% steep low hills with slopes of more than 30% and relief of less than 100 m, and 15% undulating rises with slopes of less than 10%.</p> <p><b>ADk</b> Steep hills as for <b>ADE</b>, but with significant water course erosion.</p> <p>Main soils: <u>shallow loam on rock - L1a</u> (E-V), <u>calcareous loam on rock - A2</u> (L-E), <u>gradational loam on rock - C2</u> (L), and <u>outcropping rock - RR</u> (M). These soils are moderately fertile and well drained, but shallow with restricted water holding capacity. The generally steep slopes limit land use to grazing.</p>
AKD AKX	0.3 45.9	<p>Very steep to steep hills with rocky outcrops formed on Rhynie Sandstone.</p> <p><b>AKD</b> Steep low hills with slopes of 30-60% and relief of less than 100 m.</p> <p><b>AKX</b> Very steep hills with slopes greater than 50% and relief exceeding 100 m.</p> <p>Main soils: <u>shallow sandy loam on rock - L1b</u> (E), <u>gradational loam on rock - C2 (L)</u>, <u>sandy loam over red clay on rock - D1</u> (L), and <u>outcropping rock - RR</u> (M). These soils have generally low fertility and are well drained, but shallow with restricted water holding capacity. The steep slopes limit land use to grazing.</p>

# PROPORTION codes assigned to soils within Soil Landscape Units (SLU):

(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** Calcareous loam (Paralithic, Hypercalcic / Supracalcic Calcarosol)  
Calcareous stony loam grading to soft or rubbly carbonate over weathering dolomite or calc-siltstone within 50 cm.
- C2** Gradational loam on rock (Calcic, Red Dermosol)  
Stony loam grading to a well structured red clay, calcareous at base forming in weathering siltstone between 50 and 100 cm.
- D1** Sandy loam over red clay on rock (Calcic, Red Chromosol)  
Medium thickness loam to clay loam abruptly overlying a well structured red clay, calcareous with depth grading to weathering rock within a metre.
- L1a** Shallow stony loam (Lithic, Leptic Rudosol OR Calcareous, Lithic, Leptic Tenosol)  
Shallow stony loam to clay loam overlying fine grained basement rock with or without soft carbonate in fissures.
- L1b** Shallow stony sandy loam (Lithic, Leptic Rudosol OR Calcareous, Lithic, Leptic Tenosol)  
Shallow stony sandy loam overlying sandstone with or without soft carbonate in fissures.
- RR** Outcropping rock

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

