

# MDY Moody Land System

- Area:** 289.0 km<sup>2</sup>
- Landscape:** Gently undulating to undulating rises and low hills formed on granitic rocks and associated localized alluvial outwash sediments. These materials have been deeply weathered, as reflected in the predominance of ironstone rich soils. Very gently sloping outwash fans and flats flank the rises.
- Annual rainfall:** 375 – 475 mm average
- Main soils:**
- Red brown earth (lateritic) - D6 (Ferric, Hypercalcic, Red Chromosol)  
Thin ironstone gravelly sandy loam to clay loam over a well structured red clay with variable ironstone gravel, grading to Class I carbonate within 30 cm over alluvial or Tertiary sediments.
- Butler - F2 (Hypercalcic, Brown Sodosol)  
Thin to medium thickness hard loamy sand to sandy loam over a brown mottled clay with strong columnar structure, highly calcareous from about 20 cm, grading to alluvial or Tertiary clays.
- Vanilla (sodic) - J1 (Ferric, Brown Sodosol)  
30 cm sandy loam with a bleached A2 layer containing abundant ironstone gravel, overlying a yellowish brown poorly structured mottled sodic clay, usually calcareous with depth.
- Red brown earth (clayey) - C4 (Calcic, Red Dermosol)  
Medium thickness friable clay loam with a paler coloured A2 layer, over a coarsely structured red clay with ironstone fragments, highly calcareous from about 30 cm grading to Tertiary material.
- Minor soils:**
- Saline soil - N2 (Salic / Hypersalic Hydrosol)  
Miscellaneous wet saline soil influenced by rising saline groundwater tables.
- Skeletal soil - L1 (Lithic / Petroferric, Leptic Tenosol / Rudosol)  
Variable gravelly loamy sand to sandy clay loam over basement rock or massive ironstone at depths usually less than 50 cm.
- Summary:** Gently undulating to undulating land dominated by ironstone gravelly sandy loam over red clay soils. These are moderately deep and fertile, but prone to slight waterlogging, poor structure and acidification. Potential for water erosion is slight to moderate. Saline seepages occur throughout, but affect less than 5% of the slopes overall. There are minor semi arable rocky areas. Flats and gently inclined outwash fans occupy almost 20% of the area. Soils are deep and moderately fertile, but most are prone to waterlogging (dispersive clay subsoils), and salinity is widespread.



**Soil Landscape Unit summary:** 8 Soil Landscape Units (SLUs) mapped in the Moody Land System:

SLU	% of area	Component	Main soils	Prop#	Notes
A-g	0.1	Granite outcrops	Skeletal	D	Rocky land with little agricultural value other than rough grazing.
DHB	7.7	Gently undulating slopes	RBE lateritic	E	Slopes formed on deeply weathered rock with mainly ironstone gravelly sandy loams with red clayey subsoils. These are moderately deep and fertile, but prone to slight waterlogging, poor structure and acidification. Wanilla (sodic) soils are imperfectly drained. Potential for water erosion is slight to moderate. Up to 2% of the land (more in DHL) is affected by salinity.
			RBE lateritic (acid)	C	
			Wanilla (sodic)	L	
			RBE clayey	L	
DHC	68.2	Undulating slopes	RBE lateritic	E	
			RBE lateritic (acid)	C	
			Wanilla (sodic)	L	
			RBE clayey	L	
DHL	3.8	Gently undulating slopes with 2-10% saline seepage.	RBE lateritic	E	
			RBE lateritic (acid)	C	
			Wanilla (sodic)	L	
			RBE clayey	L	
ETD	2.1	Moderate rocky slopes	RBE lateritic / Skeletal	D	As for DH*, but shallower soils and sufficient rock outcrop to prevent cultivation in places. Erosion potential is moderately high.
JcB	9.7	Very gently inclined slopes	Butler	D	Fans and flats on alluvial outwash. Soils are deep but have dispersive clay subsoils impeding drainage and root growth. Salinity is widespread, but total area affected is minor.
JcK	1.5	Marginally saline flats	Butler	D	
ZA-	6.9	Flats with variable salinity	Saline soil	D	Non arable, but most suitable for establishment of salt tolerant pasture or fodder plants.

# 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)

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

