ADD Addison Land System

Area: 1,425.5 km^2

Landscape: Calcrete plains with calcrete ridges (relict dunes) and sinkholes. There are 10% low sandhills, with a thin veneer of sand over calcrete.

Annual rainfall: 305 – 370 mm average

Main soils:

Terre - **B3** (Petrocalcic, Leptic Tenosol)
Thin to medium thickness red sandy loam to clay loam over sheet calcrete.

Calcrete - **B2a** (Petrocalcic, Lithocalcic Calcarosol)
Thin calcareous sandy loam to clay loam over hard calcrete, associated with abundant surface calcrete and sheet rock.

Moornaba (shallow) - **B8** (Petrocalcic, Leptic Tenosol)
Up to 50 cm siliceous sand over calcrete.

Moornaba - **H2** (Calcareous, Arenic, Red-Orthic / Yellow-Orthic Tenosol)
Medium thickness brown sand over yellowish sand with fine carbonate.

Minor soils:

Wookata - **A1** (Supravescent, Hypercalcic / Lithocalcic Calcarosol)
Highly calcareous (more than 40% $CaCO_3$) soft loamy sand to sandy loam grading to very highly calcareous sandy loam with variable rubble content.

Wookata (shallow) - **A1/B1** (Supravescent, Petrocalcic, Hypercalcic / Lithocalcic Calcarosol)
Highly calcareous (more than 40% $CaCO_3$) soft loamy sand to sandy loam grading to very highly calcareous sandy loam with variable rubble content, over calcrete at about 40 cm.

Bookabie (non rubbly) - **A4a** (Regolithic, Hypercalcic Calcarosol)
Calcareous soft sandy loam to sandy clay loam, becoming more clayey and calcareous with depth, over Class III A fine carbonate in a sandy clay loam to light clay matrix, from about 40 cm.

Bookabie (rubbly) - **A4b** (Regolithic, Supracalcic / Lithocalcic Calcarosol)
Calcareous soft sandy loam grading to a very highly calcareous friable massive sandy clay loam with rubbly Class III B or III C carbonate from about 50 cm, continuing with decreasing rubble content.

Bookabie (shallow) - **B2b** (Petrocalcic, Supracalcic / Lithocalcic Calcarosol)
Calcareous soft sandy loam to sandy clay loam grading to Class III B or C rubbly carbonate in a sandy clay loam to light clay matrix, over hard calcrete within 50 cm.

Haslam - **H1** (Supravescent, Hypercalcic Calcarosol / Shelly Calcarosol)
Thick highly calcareous sand, becoming more calcareous with depth and continuing below 100 cm. These soils may consist of up to 90% fine shell fragments.

Saline soil - **N2** (Salic / Hypersalic Hydrosol)
Miscellaneous wet saline soil influenced by rising saline groundwater tables.

Summary: The landscape is dominated by calcrete flats and low rises, which are semi to non arable due to shallow stony soils and / or reefs of sheet rock. Scattered across the landscape are low sandhills which have low fertility and are moderately susceptible to wind erosion. Deeper calcareous sandy loams occur to a minor extent.

Soil Landscape Unit summary: 15 Soil Landscape Units (SLUs) mapped in the Addison Land System:

SLU	% of area	Component	Main soils	Prop#	Features
QEA	0.8	Stony flats	Shallow Wookata	V	Shallow very highly calcareous soils on calcrete (non arable) with sporadic veneer of calcareous sand – infertile and prone to wind erosion.
		Sandy rises	Haslam	C	
QFA	1.4	Flats	Shallow Bookabie	V	Calcrete (semi arable) with 20-30% sandhills
		Low sandhills	Shallow Moornaba	C	
RBA	7.1	Stony flats	Terre/Calcrete	D	Calcrete (non arable) with up to 10% sandhills (low fertility, moderate wind erosion potential)
		Low sandhills	Shallow Moornaba	M	
RCA	1.9	Flats	Shallow Bookabie	D	Higher proportion of rubbly soils with greater depth - semi arable.
RUA	25.6	Stony flats	Terre/Calcrete	D	Calcrete with no sandhills - non arable.
RVA	58.9	Stony flats	Terre/Calcrete	V	Calcrete (non arable) with 10-20% sandhills (low fertility, moderate wind erosion potential)
		Low sandhills	Sh Moornaba	L	
SgA	<0.1	Flats	Bookabie	V	Sandy loam (moderate fertility and water holding capacity) with 20-30% sandhills
		Low sandhills	Shallow Moornaba	C	
U-D	0.2	Low sandhills	Shallow Moornaba	D	Individual low sandhills (low fertility, moderate wind erosion potential).
UMG	0.3	Low sandhills	Shallow Moornaba	V	Rises of very highly calcareous sandy loam (low fertility, moderate water holding capacity) with >70% sandhills (moderate wind erosion potential).
		Low rises	Wookata	C	
UUG	0.6	Low sandhills	Moornaba	V	Calcrete flats (non arable) with >70% sandhills (moderate wind erosion potential, low fertility)
		Stony flats	Terre/Calcrete	C	
UUJ	1.5	Low rises	Bookabie	E	Sandy loam rises (with moderate fertility and water holding capacity) and semi arable calcrete flats overlain by 30-60% sandhills (moderate wind erosion potential and low fertility).
		Low sandhills	Shallow Moornaba	E	
		Stony flats	Terre/Calcrete	L	
VFA	0.4	Stony depressions	Calcrete	D	Depressions on sheet calcrete - non arable.
VFL	0.1	Salt flats	Saline soil	V	Non arable (salinity / rockiness)
		Stony rises	Terre/Calcrete	C	
YBp	0.5	Rises	Wookata	V	Low fertility but adequate water holding capacity. Moderate to slight wind erosion potential.
		Low sandhills	Shallow Moornaba	L	
YFL	0.7	Flats	Wookata	V	Low fertility, slight to moderate wind erosion potential.
			Shallow Wookata	L	

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

- 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)

Further information: DEWNR Soil and Land Program