

NAK Nackara Hill Land System

- Area:** 356.9 km²
- Landscape:** Named after the Nackara Hill, a prominent hill in the southern end of the land system, this arcuate range of low rocky hills and rises forms a convoluted pattern, with extensive pediment slopes on which red duplex soils are predominant.
- Annual rainfall:** 230 – 320 mm average
- Geology:** Ulupa Siltstone Formation siltstones and shales underlie the low hills and ranges in the southwest, and Wonoka Formation calcareous shale, dolomite and limestone form gentle rises and plains in the north-east. A linear ridge in the northern edge is formed from resistant Pepuarta Tillite and Gumbowie Arkose sandstone.
- Main soils:** Shallow stony loamy soils on rock dominate hills and rises, with deep loamy texture contrast and calcareous gradational soils characteristic of pediments and plains
- Hills and rises*
- L1** Shallow stony loam to sandy loam
 - RR** Rock outcrop
- Pediments and plains*
- D4** Sandy loam to clay loam over pedaric red clay
 - A5** Rubbly calcareous sandy loam to clay loam on clay
- Minor soils:**
- Pediments and plains*
- A3** Deep moderately calcareous sandy loam to loam
 - A4** Deep (rubbly) calcareous sandy loam to loam
 - A6** Gradational calcareous clay loam to loam
 - C1** Gradational sandy loam
 - C3** Friable gradational clay loam
 - D2** Loam to clay loam over red clay
 - D3** Loam to clay loam over poorly structured red clay
 - J1** Ironstone gravelly clay loam over brown clay
 - M3** Stony alluvial loam
- Hills and rises*
- A2** Shallow calcareous loam to sandy loam
 - B2** Shallow calcareous loam on calcrete
 - C2** Gradational loam on rock
 - D1** Sandy loam to clay loam over clay on rock
 - D7** Loam over poorly structured clay on rock
- Summary:** The Nackara Hill Land System consists of a convoluted range of low rocky hills and rises with shallow, mostly non-calcareous soils formed on shales and siltstones. Pediments and plains have red texture-contrast soils with crumbly sodic and saline clayey subsoils. Rubbly gradational calcareous soils are relatively common minor components.



Soil Landscape Unit summary: 74 Soil Landscape Units (SLUs) mapped in the Nackara Hill Land System:

SLU	% of area	Component	Main soils	Prop#	Notes
AAA	0.8	Undulating rises	L1RRA2	D	Rises and hills with shallow rocky calcareous soils formed on fine grained rocks. Rock outcrops are common.
AAB	0.8	Rolling rises	L1RRA2	D	AAA Undulating rises with shallow rocky soils or rock outcrop. Relief is less than 30m, slopes are 3-10%. AAB Rolling rises with shallow rocky soils or rock outcrop. Relief is 9-30m, slopes are 10-30%. Main soils: <u>shallow stony loam</u> - L1 , <u>rock outcrop</u> - RR and <u>shallow calcareous loam</u> - A2 .
ADA	1.8	Undulating rises	L1RRD1	D	Non arable rocky rises and hills formed on limestones and calc-siltstones such as Wonoka Formation rocks with very shallow loamy soils.
ADB	0.3	Rolling rises	L1RRD1	D	
ADD	0.5	Steep low hills	L1RRD1	D	ADA Undulating rises with shallow rocky soils and rock outcrop. Relief is less than 30m, slopes are 3-10%. ADB Rolling rises. Relief is 9-30m, slopes are 10-30%. ADD Steep low hills, usually with very shallow soils. Relief is 30-90m, slopes are 30-50%. Main soils: <u>shallow stony loam</u> - L1 , <u>rock outcrop</u> - RR and <u>loam over clay on rock</u> - D1 , with <u>shallow calcareous loam</u> - A2 and <u>gradational loam on rock</u> - C2 .
AEA	0.2	Gently undulating rises	L1RR	D	Non arable rocky rises and low hills formed on mostly fine grained rocks. Soils are very shallow and stony. AEA Gently sloping rises. Relief < 30m, slopes are 1-3%. AEB Rolling rises. Relief is 9-30m, slopes are 10-30%.
AEB	7.5	Rolling rises	L1RR	D	
AEC	4.8	Rolling low hills	L1RR	D	AEC Rolling low hills. Relief is 30-90m, slopes are 3-10%. AED Steep rises. Relief is 9-30m, slopes are 30-50%.
AED	0.1	Steep rises	L1RR	D	AEE Nackara Hill. Steep hills. Relief >90m, slopes are 30-60%.
AEE	2.4	Steep hills	L1RR	D	AEG Undulating rises with moderate gullying (10-20% affected). Relief is less than 30m, slopes are 3-10%.
AEG	<0.1	Undulating rises	L1RR	D	AEH Rolling rises, moderately gullied (10-20% affected). Relief is 9-30m, slopes are 10-30%.
AEH	3.0	Rolling rises	L1RR	D	AEg Undulating rises with eroded watercourses (10-20% affected) and scalding (5-10%). Relief < 30m, slopes are 3-10%.
AEg	2.9	Undulating rises	L1RR	D	AEj Steep low hills with eroded watercourses (10-20% affected) and scalding (5-10%). Relief: 30-90m, slopes: 30-50%. Main soils: <u>shallow stony loam</u> - L1 and <u>rock outcrop</u> - RR , with <u>loam over clay on rock</u> - D1 and <u>shallow calcareous loam</u> - A2 .
AEj	1.1	Steep low hills	L1RR	D	
AIH	0.9	Rolling rises	L1RRC2	D	Rolling rises with shallow rocky soils formed mainly on fine grained rocks with interbedded quartzites. Rock outcrop is common. 10-20% of land is gullied. Relief 9-30m, slopes 10-30%. Main soils: <u>shallow stony soils on rock</u> - L1 , <u>rock outcrop</u> - RR and <u>gradational loam on rock</u> - C2 .
AYA	2.8	Undulating rises	A2L1RR	D	Hills and rises on fine grained rocks, especially siltstones of the Tapley Hill Formation. Rock outcrop is common. AYA Undulating rises. Relief: less than 30m, slopes: 3-10%. AYB Rolling rises. Relief: less than 30m, slopes: 10-30%. AYD Very steep low hills. Relief: 30-90m; slopes: 50-100%. Main soils: <u>shallow calcareous loam</u> - A2 , <u>shallow stony loam</u> - L1 and <u>rock outcrop</u> - RR .
AYB	0.1	Rolling rises	A2L1RR	D	
AYD	0.6	Very steep low hills	A2L1RR	D	
AZB	2.5	Rolling low	L1RR	V	Non-arable bare rocky rolling low hills formed on Ulupa Siltstone



		hills			and shale. Pediments, outwash fans and valley infill occur in complex with the basement rises. Watercourses are eroded, 10-20% of land on the pediments is gullied. Relief is 30-90m, slopes are 10-30%. Main soils: Rises: <u>shallow stony loam - L1</u> and <u>rock outcrop - RR</u> . Pediments: <u>clay loam over pedaric red clay - D4</u> , <u>loam over red clay - D2</u> and <u>clay loam over (pedaric) red clay on rock - D1</u> , with <u>deep (rubbly) calcareous sandy loam - A4</u> .
DCB	0.4	Gently undulating rises	D1A6	D	Gently undulating rises formed on shales and siltstones with extensive surface stone. Slopes: 1-3%, relief: less than 30m. Main soils: <u>clay loam over (pedaric) red clay on rock - D1</u> and <u>gradational calcareous clay loam - A6</u> , with <u>loam over poorly structured clay on rock - D7</u> , <u>shallow stony loam - L1</u> and <u>gradational loam on rock - C2</u> .
DHW	0.3	Undulating rises	D1L1C2	D	Undulating rises on limestone, moderately scalded. Relief is 9-30m, slopes are 10-30%. Main soils: <u>loam over clay on rock - D1</u> , <u>shallow stony loam - L1</u> and <u>gradational loam on rock - C2</u> .
DSB	0.1	Pediments	D1C2D7	V	Complex of pediments and rocky rises with shallow clay loamy soils over rock. DSB Gently sloping pediments with 20-30% outcropping rock. Slopes are 1-3%, relief is less than 30m.
		Rock outcrop	L1RR	C	
DSW	0.6	Pediments	D1C2D7	V	DSW Undulating pediments, moderately scalded (10-50%). Relief is less than 30m, slopes are 3-10%. Main soils: <u>clay loam over (pedaric) red clay on rock - D1</u> , <u>gradational clay loam on rock - C2</u> , and <u>loam over poorly structured clay on rock - D7</u> , with <u>shallow stony loam - L1</u> and <u>rock outcrop - RR</u> .
		Rock outcrop	L1RR	C	
DTC	1.2	Undulating rises	D1D7	D	Undulating rises with clay loamy soils on fine grained rock. Relief is 9-30m, slopes are 3-10%. Main soils: <u>clay loam over (pedaric) red clay on rock - D1</u> and <u>loam over poorly structured clay on rock - D7</u> , with <u>rock outcrop - RR</u> and <u>shallow stony loam - L1</u> .
EHMz	2.7	Undulating rises	A2L1RR	V	Undulating rises and pediments on calcareous siltstones and limestones of the Tapley Hill, Wonoka and Bunyeroo Formations and the ABC Range Quartzite of the Wilpena Group, with outwash contribution from Wonoka Formation calc-siltstones. Moderately gullied and scalded. On the pediments; scalding affects 10-50% of land, 10-20% is gullied and soils are saline. Main soils: Rocky rises: <u>shallow calcareous loam - A2</u> , <u>shallow stony loam - L1</u> and <u>rock outcrop - RR</u> . Plains and Pediments: <u>deep (rubbly) calcareous sandy loam - A4</u> , with <u>shallow calcareous loam - A2</u> and <u>gradational clay loam on rock - C2</u> .
		Pediments	A4	C	
EVB	1.4	Gently undulating rises	A2	V	Rises with rock outcrops and shallow calcareous soils formed on fine grained calcareous rocks. EVB Gently sloping rises with 20-30% rocky outcrops. Slopes are 1-3%, relief is less than 30m. EVC Undulating rises with 20-30% rocky outcrops. Slopes are 3-10%, relief is less than 9-30m.
		Rocky outcrops	RR	C	
EVC	0.2	Undulating rises	A2	V	EVV Gently undulating rises with 20-30% rock outcrop and moderate scalding (10-50% of land affected). Slopes are 1-3%,
		Rocky	RR	C	



		outcrops			relief is less than 30m.
EVV	1.1	Gently undulating rises	A2	V	Main soils: <u>shallow calcareous loam on rock</u> - A2 with <u>rubbly calcareous loam on clay</u> - A5 and <u>shallow calcareous loam on calcrete</u> - B2 . <u>Rock outcrop</u> - RR with <u>shallow stony loam</u> - L1 on rockier areas.
		Rocky outcrops	RR	C	
EZC	0.8	Undulating rises	A2A5B2	V	Rises with mostly shallow calcareous soils on weathered siltstones of the Tapley Hill Formation and the Tarcowie Siltstone. EZC Undulating rises with calcareous sandy loam soils and 20-30% rocky outcrops. Slopes: 3-10%, relief: less than 30m.
		Rocky outcrops	RR	C	
EZH	0.3	Undulating rises	A2A5B2	V	EZH Undulating rises as above, with gullying affecting 10-20% of land. Slopes are 3-10%, relief is less than 30m. Main soils: Rises: <u>shallow calcareous sandy loam</u> - A2 , <u>rubbly calcareous sandy loam on clay</u> - A5 and <u>shallow calcareous sandy loam on calcrete</u> - B2 . Rocky outcrops: <u>Rock outcrop</u> - RR , with <u>shallow stony sandy loam</u> - L1 , and <u>shallow calcareous sandy loam on calcrete</u> - B2 .
		Rocky outcrops	RR	C	
JDB	0.3	Valley floor	D2D4A4	D	Gently sloping valley floor with clay loamy soils formed on fine grained outwash. Main soils: <u>clay loam over red clay</u> - D2 , <u>clay loam over pedaric red clay</u> - D4 and <u>deep (rubbly) calcareous loam</u> - A4 , with <u>gradational sandy loam</u> - C1 and <u>rubbly calcareous clay loam on clay</u> - A5 .
JIPz	1.3	Plains	D3D4A3	D	Pediments and plains with clay loamy soils formed on fine grained outwash. JIPz Plains. Mod. gullied (5-10%) and severely scalded (>50%). JIV Gently sloping plains. Moderately scalded (5-10%). Slopes are 1-3%, relief is less than 9m.
JIV	2.9	Gently undulating plains	D1D4A3	D	
JII	0.4	Gently undulating plains	D1D4A3	D	JII Gently sloping plains. Moderately gullied (10-20%) and scalded (5-10%). Slopes are 1-3%, relief is less than 9m. Main soils: <u>clay loam over poorly structured red clay</u> - D3 , <u>clay loam over pedaric red clay</u> - D4 and <u>deep moderately calcareous loam</u> - A3 , with <u>loam over poorly structured clay on rock</u> - D7 .
JKB	0.4	Pediments	D1A3A5	D	Pediments with sandy loam soils formed on medium grained sediments. JKB Gently sloping pediments with slopes 1-3% and relief <9m. JKI Gently sloping pediments with moderate gullying (10-20%) and scalding (10-50%). Subsoils are moderately saline. Slopes are 1-3%, relief is less than 9m. Main soils: <u>sandy loam over (pedaric) red clay on rock</u> - D1 , <u>deep moderately calcareous sandy loam</u> - A3 and <u>rubbly calcareous sandy loam on clay</u> - A5 .
JKI	1.1	Pediments	D1A3A5	D	
JLLz	3.7	Pediments	D4	D	Plains and pediments with loamy soils formed on medium to fine grained outwash sediments. JLLz Gently sloping pediments, 10-20% gullied, 10-50% scalded and with highly saline soils. Slopes are 1-3%, relief is less than 9m.
JLV	2.3	Pediments	D4	D	
JLmm	0.4	Undulating pediments	D4	D	JLV Gently sloping pediments. Moderately scalded (10-50%). Slopes are 1-3%, relief is less than 9m. JLmm Undulating pediments. Severely gullied (over 20%) and
JLo	0.2	Creek flat	D4D1	D	
JLq	1.0	Pediments	D4	D	
JLtz	2.1	Creek flat	D4D1	D	



JLyy	1.0	Creek flat	D4D1	D	moderately scalded (10-50%). Slopes are 3-10%, relief < 9m. JLo Creek flat. Moderately gullied (stable banks) and scalded (10-50%). JLq Gently sloping pediments. Severely scalded (over 50%). Slopes are 1-3%, relief is less than 9m. JLtz Creek flat. Severely gullied (over 20%) and scalded (over 50%), moderately saline soils. JLyy Creek flat. Severely gullied (>20%) and scalded (>50%). Main soils: <u>loam over pedaric red clay - D4</u> , with <u>loam over (pedaric) red clay on rock - D1</u> and <u>deep moderately calcareous loam - A3</u> .
JMQz	0.5	Pediments	D4	D	Pediments, plains and creek flats with clay loamy soils and surface quartz gravel, formed on fine grained outwash. JMQz Gently sloping pediments. Moderately gullied (10-20% affected) and severely scalded (over 50%). Subsoils are saline. Slopes are 1-3%, relief is less than 9m. JMV Gently sloping pediments. Moderately scalded (5-10%). Slopes are 1-3%, relief is less than 9m. Main soil is <u>clay loam over pedaric red clay - D4</u> .
JMV	0.2	Pediments	D4	D	
JOV	8.4	Gently undulating plains	JID4	D	Gently undulating plains with ironstone gravelly clay loamy soils formed on fine grained sediments. Moderately scalded (10-50%). Slopes are 1-3%, relief is less than 9m. Main soils: <u>ironstone gravelly clay loam over brown clay - J1</u> and <u>clay loam over pedaric red clay - D4</u> .
JPV	2.8	Pediments	D4A5	D	Pediments and plains formed on fine grained outwash sediments. JPV Gently sloping pediments. Moderately scalded (5-10%). Slopes are 1-3%, relief is less than 9m. JPW Undulating pediments. Extensively scalded (10-50%). Slopes are 3-10%, relief is less than 9m. JPp Level plains. Severely scalded (over 50%). Main soils: <u>clay loam over pedaric red clay - D4</u> , and <u>rubbly calcareous clay loam on clay - A5</u> , with <u>gradational loam on rock - C2</u> .
JPW	0.3	Pediments	D4A5	D	
JPp	0.4	Plains	D4A5	D	
JVH	0.4	Valley floors	D4D2C1	D	Pediments and plains formed on outwash sediments derived from basement rocks. Most soils have sandy loam surfaces. JVH Valley floor with 3-10% slope. Moderately gullied (10-20%). JVI Gently sloping pediments. Moderately gullied (5-10%) and scalded (10-50%). Slopes are 1-3%. Main soils: <u>sandy loam over pedaric red clay - D4</u> , <u>sandy loam over red clay - D2</u> and <u>gradational sandy loam - C1</u> .
JVI	0.3	Pediments	D4D2C1	D	
JYC	0.3	Pediments	D4D1	D	Pediments with mostly clay loamy soils, formed on complex of fine grained outwash and basement rock. JYC Undulating pediments. Slopes are 3-10%. JYI Gently sloping pediments. Moderately gullied (10-20%) and scalded (10-50%). Slopes are 1-3%. Main soils: <u>clay loam over pedaric red clay - D4</u> , <u>clay loam over (pedaric) red clay on rock - D1</u> and <u>loam over poorly structured clay on rock - D7</u> , with <u>rubbly calcareous clay loam on clay - A5</u> and <u>gradational loam on rock - C2</u> .
JYI	3.3	Pediments	D4D1D7	D	
JZB	0.3	Pediments	D4A5	V	Complex of pediments on fine grained alluvium and up to 30% basement rock outcrops. JZB Gently sloping pediments with up to 10% rocky outcrops. Slopes are 1-3%, relief is less than 9m.
		Rocky outcrops	RR	M	
JZC	0.9	Pediments	D4A5	V	



		Rocky outcrops	RR	M	JZC Undulating pediments. Slopes are 3-10%, relief is < 9m. JZV Gently sloping pediments. Moderately scalded (5-10%). Slopes are 1-3%, relief is less than 9m.
JZV	5.3	Pediments	D4A5	V	
		Rocky outcrops	RR	M	JZW Undulating pediments. Moderately scalded (5-10%). Slopes are 3-10%, relief is less than 9m. JZm Undulating pediments. Moderately gullied (10-20%) and scalded (5-10%). Slopes: 3-10%, relief is less than 9m. Main soils: <u>Pediments and plains:</u> <u>clay loam over pedaric red clay - D4</u> and <u>rubbly calcareous clay loam on clay - A5</u> with <u>deep moderately calcareous loam - A3</u> . <u>Rocky rises:</u> <u>rock outcrop - RR</u> with <u>shallow stony loam - L1</u> .
JZW	0.5	Pediments	D4A5	V	
		Rocky outcrops	RR	M	JZm Undulating pediments. Moderately gullied (10-20%) and scalded (5-10%). Slopes: 3-10%, relief is less than 9m. Main soils: <u>Pediments and plains:</u> <u>clay loam over pedaric red clay - D4</u> and <u>rubbly calcareous clay loam on clay - A5</u> with <u>deep moderately calcareous loam - A3</u> . <u>Rocky rises:</u> <u>rock outcrop - RR</u> with <u>shallow stony loam - L1</u> .
JZm	0.6	Pediments	D4A5	V	
		Rocky outcrops	RR	M	Pediments formed on fine grained alluvium. KFB Gently sloping pediment. Slopes are 1-3% KFV Moderately scalded (10-50%) gently sloping pediments. Slopes are 1-3%. KFm Undulating pediments. Moderately gullied (10-20%) and scalded (10-50%). Slopes are 3-10%. Main soils: <u>rubbly calcareous clay loam on clay - A5</u> , with <u>clay loam over pedaric red clay - D4</u> .
KFB	1.7	Pediments	A5	D	
KFV	2.0	Pediments	A5	D	KFm Undulating pediments. Moderately gullied (10-20%) and scalded (10-50%). Slopes are 3-10%. Main soils: <u>rubbly calcareous clay loam on clay - A5</u> , with <u>clay loam over pedaric red clay - D4</u> .
KFm	0.4	Pediments	A5	D	
KLB	0.4	Pediment	A5	D	Gently sloping pediments. Slopes are 1-3%. Main soils: <u>rubbly calcareous clay loam on clay - A5</u> , with <u>shallow calcareous clay loam - A2</u> , <u>gradational loam on rock - C2</u> and <u>shallow calcareous loam on calcrete - B2</u> .
KOB	0.5	Pediment	A5	D	Pediments with clay loamy soils formed on fine grained alluvium. KOB Gently sloping pediments with slopes of 1-3%. KOU Plains. Moderately scalded (10-50%). Main soils: <u>rubbly calcareous clay loam on clay - A5</u> and <u>gradational calcareous clay loam - A6</u> , with <u>clay loam over pedaric red clay - D4</u> and <u>deep (rubbly) calcareous loam - A4</u> .
KOU	0.1	Plains	A6A5	D	
KQB	3.6	Pediments	A5	V	Complex of pediments formed on fine grained outwash and low basement rock rises with outcrops. Slopes are 1-3%, relief < 9m. KQB Gently sloping pediments. KQG Gently sloping pediments and rises. Moderately gullied (10-20%). KQGz Gently sloping pediments and rises. Most soils are saline, 10-50% of land scalded. KQLz Gently sloping pediments and rises. Moderately gullied (10-20%) and 10-50% scalded. KQL Gently sloping pediments and rises. Moderately saline subsoils and 10-20% gullied. Main soils: <u>Pediments:</u> <u>rubbly calcareous clay loam on clay - A5</u> with <u>clay loam over pedaric red clay - D4</u> . <u>Rises:</u> <u>shallow calcareous loam - A2</u> , with <u>shallow calcareous loam on calcrete - B2</u> and <u>rock outcrop - RR</u> .
		Shallow rises	A2	C	
KQG	3.8	Pediment	A5	V	KQGz Gently sloping pediments and rises. Most soils are saline, 10-50% of land scalded. KQLz Gently sloping pediments and rises. Moderately gullied (10-20%) and 10-50% scalded. KQL Gently sloping pediments and rises. Moderately saline subsoils and 10-20% gullied. Main soils: <u>Pediments:</u> <u>rubbly calcareous clay loam on clay - A5</u> with <u>clay loam over pedaric red clay - D4</u> . <u>Rises:</u> <u>shallow calcareous loam - A2</u> , with <u>shallow calcareous loam on calcrete - B2</u> and <u>rock outcrop - RR</u> .
		Shallow rises	A2	C	
KQGz	1.5	Pediment	A5	V	KQLz Gently sloping pediments and rises. Moderately gullied (10-20%) and 10-50% scalded. KQL Gently sloping pediments and rises. Moderately saline subsoils and 10-20% gullied. Main soils: <u>Pediments:</u> <u>rubbly calcareous clay loam on clay - A5</u> with <u>clay loam over pedaric red clay - D4</u> . <u>Rises:</u> <u>shallow calcareous loam - A2</u> , with <u>shallow calcareous loam on calcrete - B2</u> and <u>rock outcrop - RR</u> .
		Shallow rises	A2	C	
KQLz	0.2	Pediment	A5	V	Level plains formed on calcareous outwash sediments derived from basement rock. Moderately scalded 10-50%). Main soils: <u>gradational calcareous loam - A6</u> and <u>rubbly calcareous loam on clay - A5</u> .
		Shallow rises	A2	C	
KQL	0.3	Pediment	A5	V	Level plains formed on calcareous outwash sediments derived from basement rock. Moderately scalded 10-50%). Main soils: <u>gradational calcareous loam - A6</u> and <u>rubbly calcareous loam on clay - A5</u> .
		Shallow rises	A2	C	
KVU	0.1	Plains	A6A5	D	Level plains formed on calcareous outwash sediments derived from basement rock. Moderately scalded 10-50%). Main soils: <u>gradational calcareous loam - A6</u> and <u>rubbly calcareous loam on clay - A5</u> .



KbG	0.5	Pediments	A6C3	D	Gently sloping pediments formed on fine grained outwash. 10-20% of land is gullied. Slopes are 1-3%, relief is less than 9m. Main soils: <u>gradational calcareous clay loam - A6</u> and <u>friable gradational clay loam - C3</u> , with <u>clay loam over pedaric red clay - D4</u> .
KdC	0.4	Pediments	C3	D	Undulating pediments formed on fine grained alluvium. Slopes are 3-10%, relief is less than 9m. Main soils: <u>friable gradational clay loam - C3</u> , with <u>clay loam over pedaric red clay - D4</u> and <u>gradational calcareous clay loam - A6</u> .
KgC	0.4	Pediments	A5A4	D	Pediments and flats with mostly gravelly loamy soils. KgC Undulating pediments with slopes of 3-10%. Kgoo Creek flats, severely scalded (over 50%) and gullied (20%). Main soils: <u>rubbly calcareous loam on clay - A5</u> , <u>deep (rubbly) calcareous loam - A4</u> and <u>stony alluvial loam - M3</u> , with <u>friable gradational clay loam - C3</u> and <u>loam over pedaric red clay - D4</u> .
Kgoo	0.3	Creek flats	M3A4	D	

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.
- A3** Deep moderately calcareous sandy loam to loam (Regolithic, Calcic Calcarosol)
Calcareous loam to sandy loam grading to a loamy to clayey subsoil without a significant carbonate accumulation in the subsoil, grading to medium to fine grained alluvium.
- A4** Deep (rubbly) calcareous sandy loam to loam (Regolithic, Hypercalcic / Lithocalcic Calcarosol)
Calcareous sandy loam to loam grading to a very highly calcareous sandy clay loam to light clay with variable rubble, continuing below 120 cm.
- A5** Rubbly calcareous sandy loam to clay loam on clay (Regolithic, Supracalcic / Hypercalcic Calcarosol)
Calcareous sandy loam to clay loam grading to a very highly calcareous rubbly sandy clay loam to light clay, over a clayey substrate deeper than 60 cm, but within 120 cm.
- A6** Gradational calcareous clay loam to loam (Pedal, Hypercalcic / Supracalcic Calcarosol)
Calcareous clay loam to loam grading to a well structured very highly calcareous (sometimes rubbly) clay, over a red clayey substrate within 120 cm.
- B2** Shallow calcareous loam on calcrete (Petrocalcic, Calcic / Lithocalcic Calcarosol)
Stony calcareous sandy loam to 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.
- C1** Gradational sandy loam (Hypercalcic, Red Kandosol)
Friable sandy to loamy topsoil grading to massive red-brown alkaline loamy to clay loamy subsoil, highly calcareous with depth, over alluvium.



- C2** Gradational loam on rock (Calcic / Hypercalcic Red Dermosol)
Loam to clay loam grading to a friable red clay with soft Class I carbonate within 50 cm, grading to weathering rock within 100 cm.
- C3** Friable gradational clay loam (Calcic / Hypercalcic Red Dermosol)
Loam to clay loam grading to a friable red clay with abundant soft Class I carbonate within 50 cm, overlying alluvium within 100 cm.
- D1** Sandy loam to clay loam over clay on rock (Hypercalcic / Calcic, Red Chromosol)
Medium thickness hard gravelly sandy loam to clay loam over a friable and finely structured red clay, calcareous with depth, grading to weathering basement rock within 100 cm.
- D2** Loam to clay loam over red clay (Calcic / Hypercalcic, Red Chromosol)
Hard setting loam to clay loam (with variable quartzite stones) abruptly overlying a well structured red clay with soft Class I carbonate at depth.
- D3** Loam to clay loam over poorly structured red clay (Calcic, Red Sodosol)
Medium thickness hard loam to clay loam with up to 50% quartzite stones over a coarsely prismatic dispersive red clay, calcareous with depth over stony and clayey alluvium.
- D4** Sandy loam to clay loam over red friable clay (Calcic, Pedaric, Red Sodosol)
Thin to medium thickness sandy loam to clay loam over a finely structured friable red clay, calcareous from about 50 cm, grading to fine or medium grained alluvium.
- D7** Loam over poorly structured clay on rock (Calcic / Hypercalcic, Red Sodosol)
Medium to thick hard sandy loam to clay loam sharply overlying a coarsely structured dispersive red clay, calcareous with depth, grading to highly weathered kaolinized siltstone or quartzite.
- J1** Ironstone gravelly clay loam over brown clay (Ferric, Calcic, Brown Sodosol)
Ironstone gravelly clay loam to loam overlying a brown alkaline clayey subsoil, calcareous with depth, grading to highly weathered, kaolinized sediments or basement rocks.
- L1** Shallow stony loam to sandy loam on fine grained rock (Paralithic, Leptic Tenosol)
Shallow stony loam to sandy loam, often calcareous with depth, overlying weathering fine grained rock shallower than 50 cm.
- M3** Stony alluvial loam (Basic, Fluvic, Clastic Rudosol OR Basic, Regolithic, Red-Orthic Tenosol)
Thick to very thick loam to sandy loam with more than 50% quartzite stones overlying stony alluvium.
- RR** Rock outcrop.

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

