## **BUF** Butterfields Land System

**Area:** 175.9 km<sup>2</sup>

**Landscape:** The landscape consists of gently sloping pediments with reddish sandy duplex soils,

which can be ironstone gravelly in the south. There are some calcareous soils on pediments and over calcareous rocks on rises. Extensive broad pediments which form an arc around the Eke land system ranges. Typically the soils have red sandy surface

over clay or are grey calcareous loams. Rock outcrops on rises occasionally. Elongate, grey calcareous outwash stream deposits overlie the pediment in places.

Scalded areas are typical of footslopes.

**Annual rainfall:** 235 – 320 mm average, with the higher rainfall on the western slopes

**Geology:** Tapley Hill Formation calcareous siltstones form the hard rock rises on upper slopes.

These yield calcareous detrital materials which form the pediments and, eventually,

alluvial plains lower in the landscape.

**Relief:** Mostly less than 30 m

Soils: Gradational sandy loams to clay loams, both calcareous and non calcareous,

formed on pediment and plains outwash sediments comprise almost half of the area. A variety of shallow loamy soils formed on basement rocks occur on rising ground.

Main soils (formed on outwash)

**A5** Rubbly calcareous loam to clay loam on clay

C3 Friable gradational (sandy) clay loam

C1 Gradational sandy loam

## Minor soils

Basement rock rises

A2 Shallow calcareous loam to clay loam

**B2** Shallow calcareous loam on calcrete

**B4** Shallow red loam on calcrete

C2 Gradational loam to clay loam on rock

**D1** Loam to clay loam over red clay on rock

D7 Sandy loam to loam over poorly structured clay on rock

L1 Shallow stony loam

Pediments and plains on outwash sediments

A3 Deep moderately calcareous sandy loam to loam

A4 Deep (rubbly) calcareous sandy loam

**A6** Gradational calcareous clay loam to loam

C4 Hard gradational clay loam

**D2** Loam to clay loam over red clay

**D4** Loam to clay over pedaric red clay

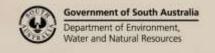
**D5** Hard loamy sand over red clay

**E2** Red cracking clay

J1 Ironstone gravelly clay loam over brown clay

M1 Deep alluvial loam

M3 Deep gravelly soil



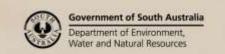


## **Summary:**

The Butterfields Land System is named after a nearby property. It consists of gently sloping pediments forming an arc around the Eke land system, northeast of Orroroo. Pediments have reddish sandy duplex soils, often ironstone gravelly, and shallow calcareous soils on rocky rises. Scalding is more common on lower slopes, where subsoils are also moderately saline.

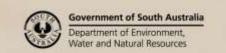
Soil Landscape Unit summary: 80 Soil Landscape Units (SLUs) mapped in the Butterfields Land System:

SLU	% of area	Component	Main soils	Prop#	Notes
ADA	1.3	Undulating	C2L1	D	Non arable rocky rises formed on limestones and calc-siltstones such
		rises	A2		as Skillogalee Dolomite with very shallow loamy soils.
ADB	0.1	Rolling rises	L1	D	ADA Undulating rises. Relief is less than 30m, slopes are 3-10%.
ADG	0.1	Undulating	C2L1	D	ADB Rolling rises. Relief is 9-30m, slopes are 10-30%.
		rises	A2		ADG Undulating rises with eroded watercourses.
ADH	0.5	Rolling rises	L1	D	Relief is less than 30m, slopes are 3-10%.
					ADH Rolling rises with eroded watercourses. Relief: 9-30m, slopes: 10-30%.
					Main soils: <u>shallow stony loam</u> - <b>L1</b> , <u>gradational loam on rock</u> - <b>C2</b> and shallow calcareous loam - <b>A2</b> .
					Non arable, limited pastoral use.
DNG	1.2	Gently	D1	D	Rises formed on fine grained rocks, typically Brachina Shale
DITO	1.2	undulating			Formation. The soils are mostly texture contrast with clay loamy
		rises			surface textures.
DNk	0.7	Plains	D1	D	DNG Gently undulating rises. 10-20% gullied and 0-5% scalded. Moderate
DNm		Gently	D1	D	subsoil salinity. Slopes are 1-3%, relief is less than 30m.
		undulating			<b>DNk</b> Plains. 5-10% gullied, 10-50% scalded; subsoils moderately saline.
		rises			<b>DNm</b> Gently undulating rises with slopes: 1-3%; relief: less than 30 m. 10-
					20% gullied, 5-10% scalded and subsoils are moderately saline.
					Main soils: <u>clay loam over (pedaric) red clay on rock</u> - <b>D1</b> , with <u>loam</u>
EED	1 /	C H	40D7	_	over red clay - <b>D2</b> and red cracking clay - <b>E2</b> .
EFB	1.6	Gently undulating	A2D7 L1	D	Rises and plains with moderately shallow soils overlying hard calcareous rocks, typically Hawker Group siltstones and limestones.
		rises	LI		<b>EFB</b> Gently undulating rises with minor scalding. Slopes are 1-3%, relief
EFD	0.3	Rolling rises	D7L1	D	is less than 30m.
EFH	0.3	Undulating	A2D7	D	<b>EFD</b> Rolling rises with minor scalding. Relief: 9-30m, slopes: 10-30%.
2111	0.1	rises	L1		<b>EFH</b> Undulating rises. Relief is less than 30m, slopes are 3-10%. More
EFI	0.9	Rolling rises	D7L1	D	than 20% is gullied (severe).
					EFI Rolling rises. Relief is 9-30m, slopes are 10-30%. 5-10% gullied, 0-5%
					scalded.
					Main soils: <u>sandy loam over poorly structured clay on rock</u> - <b>D7</b> ,
					shallow calcareous loam - <b>A2</b> and shallow stony loam - <b>L1</b> .
EHB	1.2	Gently	A2	٧	Rises and pediments on calcareous siltstones and limestones of the
		sloping			Tapley Hill, Wonoka and Bunyeroo Formations and Wilpena Group.
		plains Rocky	RR	1	<b>EHB</b> Gently sloping plains, slopes of 1-3%, with 10-20% rocky outcrops, slopes 3-10%.
		outcrops	KK	L	EHH Undulating pediments, slopes of 3-10%, with 10-20% rocky rises.
ЕНН	2.5	Undulating	A2	V	Gullying affects up to 20% of land, 0-5% is scalded and subsoils have
21111	2.0	pediments	, \_	*	moderate salinity.
		Rocky	RR	L	Main soils:
		outcrops			Plains and Pediments: shallow calcareous loam - A2, with loam over
					poorly structured clay on rock - <b>D7</b> and shallow stony loam - <b>L1</b> .
					Rocky rises: shallow stony loam - L1 and rock outcrop - RR.
ELB	0 4	Gently	L1C2	D	Complex of gently undulating rises and pediments with shallow soils
	0.1	undulating	B2	-	formed on Appila Tillite Formation and alluvium.
i l	i	rises	i	1	<b>ELB</b> Gently undulating rises and pediments. Slopes: 1-3%, relief: 9-30m.



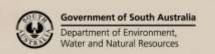


ELC	0.5	Undulating rises	L1C2 B2	D	ELC Undulating rises and pediments. Slopes are 3-10%, relief is 9-30m.  Main soils: shallow stony loam - L1, shallow gradational loam on rock - C2 and shallow calcareous loam on calcrete - B2, with shallow calcareous loam - A2 and shallow red loam on calcrete - B4.
ESB	0.2	Gently undulating rises	A2 A5	V	Hills and rises with shallow loamy surface soils on calcareous shales and limestone rocks of the Wonoka Formation.  ESB Gently undulating rises with rocky outcrops. Up to 5% of land is
		Rocky outcrops	RR	С	affected by gullying and scalding. Subsoils are moderately saline. Slopes are 1-3%, relief is 9-30m.
ESC	0.4	Undulating rises	A2 A5	٧	<b>ESC</b> Undulating rises with rocky outcrops. Up to 5% of land is affected by gullying. Slopes are 3-10%, relief is 9-30m.
		Rocky outcrops	RR	С	Main soils:  Undulating rises: shallow calcareous loam - A2 and rubbly calcareous loam on clay - A5  Rocky outcrops: rock outcrop - RR with shallow stony loam - L1.
EUB	0.1	Gently undulating rises	L1C2 A2	D	Rises with a complex of clay loamy soils formed over fine grained rocks. <b>EUB</b> Gently undulating rises. Slopes are 1-3%, relief is 9-30m.
EUC	0.1	Undulating rises	L1C2 A2	D	EUC Undulating rises. Slopes are 3-10%, relief is 9-30m.  Main soils: shallow stony loam - L1, gradational clay loam on rock - C2 and shallow calcareous clay loam - A2.
EVI	0.5	Rolling rises Rocky outcrops	A2 RR	> C	Rolling rises with rock outcrops and shallow calcareous soils formed on fine-grained calcareous rocks. More than 20% of land is gullied. Relief is 9-30m, slopes are 10-30%.  Main soils: shallow calcareous loam - A2, with rock outcrop - RR, rubbly calcareous loam on clay - A5, shallow calcareous loam on calcrete - B2 and shallow stony loam - L1.
EZB	1.9	Gently undulating rises	A2 A5B2	٧	Rises with mostly shallow calcareous soils on weathered siltstones of the Tapley Hill Formation and the Tarcowie Siltstone. <b>EZB</b> Gently undulating rises with rocky outcrops. Up to 5% of land is
		Rocky outcrops	RR	С	gullied and/or scalded. Subsoils are moderately saline. Slopes are 1-3%, relief is less than 30m.
EZG	0.1	Gently undulating rises	A2 A5B2	٧	<b>EZG</b> Gently undulating rises with rocky outcrops. 10-20% of land is gullied and 5-10% is scalded. Subsoils are moderately saline. Slopes are 1-3%, relief is less than 30m.
		Rocky outcrops	RR	С	<b>EZH</b> Undulating rises with rocky outcrops. Gullying affects 10-20% of land. Slopes are 3-10%, relief is less than 30m.
EZH	0.5	Undulating rises	A2 A5B2	٧	<b>EZW</b> Undulating rises with rocky outcrops. Gullying affects 5-10% of land, scalding affects around 10-50%. Subsoils are moderately saline.  Slopes are 3-10%, relief is less than 30m.
EZW	0.7	Rocky outcrops	RR	C	Main soils:  Rises: shallow calcareous loam - A2, rubbly calcareous loam on clay -
EZW	0.6	Undulating rises Rocky	A2 A5B2 RR	C	A5 and shallow calcareous loam on calcrete - B2.  Rocky outcrops: rock outcrop - RR, with shallow stony loam - L1 and
JFB	1.2	outcrops Gently	D2	D	shallow calcareous loam on calcrete - <b>B2</b> .  Pediments formed on fine grained outwash sediments with clay loamy
		undulating pediments	D4C1		soils.  JFB Gently undulating pediments. Slopes: 1-3%, relief: < 9m.
JFJ	0.6	Drainage lines	D2D4 C1	D	<b>JFJ</b> Drainage line with 5-10% gullied banks and 0-5% scalding. Subsoils are moderately saline.
JFU	0.5	Plains	D2D4 C1	D	JFU Plains with 5-10% gullied land and 10-50% scalding. Subsoils are moderately saline.  Main soils: clay loam over red clay - D2, clay loam over pedaric red clay - D4 and gradational sandy loam - C1.
JIU	0.5	Plains	D1D4 A5	D	Gently sloping alluvial plains with red texture contrast and calcareous soils.



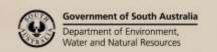


TII	0.0	Conth	D4D1	<u> </u>	TITL Plain with 10 F007 and dispersed 0 F07 will the College to
JII	0.3	Gently sloping	D4D1 A5	D	JIU Plain with 10-50% scalding and 0-5% gullying. Subsoils are moderately saline.
		plains			JII Gently sloping alluvial plain. Gullying affects 5-50% of land, most severe along watercourses. Scalding affects over 50% of land.
					Subsoils are moderately saline. Slopes: 1-3%, relief: < 9m.
					Main soils: <u>loam over pedaric red clay</u> - <b>D4</b> , <u>loam over clay on rock</u> -
					D1 and <u>rubbly calcareous loam on clay</u> - A5, with <u>deep moderately calcareous loam</u> - A3 and shallow calcareous loam on calcrete - B2.
JNB	1.5	Gently	D4D2	D	Pediments with mostly clay loamy soils formed on fine grained
		sloping pediments	A5		outwash sediments.  JNB Gently sloping pediments. Slopes: 1-3%, relief: less than 9m.
JNU	2.9	Plains	D4D2	D	JNU Level plain; 5-10% scalded.
D.W.	0.0	0 "	A5		JNV Gently sloping pediments. Scalding affects 10-50% of land. Slopes
JNV	2.0	Gently sloping	D4D2 A5	D	are 1-3%, relief is less than 9m.  JNY drainage line with 5-10% scalding and up to 5% gullying.
		pediments			JNI Gently sloping pediment plain; gullying affects up to 50% of land, most
JNY	0.5	Drainage line	D4D2 A5	D	severe along watercourses. Scalding affects nearly 50% of land. Subsoils are moderately saline. Slopes: 1-3%, relief: < 9m.
JNl	0.1	Gently	D4D2	D	JNo Creek flat 10-20% affected by gullying and 10-50% scalded. Scalding
		sloping	A5		may be more than 50% locally. Subsoils: moderately saline.
JNo	0.8	pediments Creek flats	D4D2	D	Main soils: <u>clay loam over red clay</u> - <b>D2</b> , <u>clay loam over pedaric red</u> <u>clay</u> - <b>D4</b> and <u>rubbly calcareous loam on clay</u> - <b>A5</b> , with <u>red cracking</u>
3110	0.0	CICCK IIGIS	A5		clay - E2.
JOA		Plains	JID4	D	Pediments formed on fine grained outwash or deep weathering
JOB	2.2	Gently undulating	JID4	D	materials, with clay loamy soils, some ironstone gravelly.  JOA Plains.
		plains			JOB Gently undulating plains. Slopes: 1-3%, relief: less than 9m.
JOU JOV			JID4	D D	JOU Plains with 10-50% scalding and 0-5% gullying. Subsoils are moderately saline.
JOV	<0.1	Gently undulating	JID4	ט	JOV Gently undulating plains with 10-50% scalding and up to 5%
		plains			gullying. Slopes are 1-3%, relief is less than 9m.
					Main soils: <u>ironstone gravelly clay loam over brown clay</u> - <b>J1</b> and <u>clay loam over pedaric red clay</u> - <b>D4</b> .
KCV	4.1	Pediments	СЗАЗ	D	Gently undulating pediments with sandy clay loam surfaced
					gradational soils formed on medium to fine grained outwash. 10-50% of land is scalded; 5-10% gullied. Slopes: 1-3%, relief: < 9m.
					Main soils: <u>friable gradational sandy clay loam</u> - <b>C3</b> and <u>deep</u>
					moderately calcareous loam - A3, with deep gravelly soil - M3 on
KEB	2.0	Gently	C3C1	D	creek flats.  Pediments and plains formed on outwash sediments with mostly
		undulating			loamy gradational soils.
KEG	1.1	pediments Gently	C3C1	D	<b>KEB</b> Gently undulating pediments with minor scalding and gullying. Slopes are 1-3%, relief is less than 9m.
KEU	1.1	undulating	COCI		KEG Gently undulating pediments with 10-50% scalding and 5-10%
		pediments			gullying. Slopes are 1-3%, relief is less than 9m.
					Main soils: <u>friable gradational clay loam</u> - <b>C3</b> and <u>gradational sandy loam</u> - <b>C1</b> , with <u>loam over red clay</u> - <b>D2</b> .
KFA	10.8	Plains	A5	D	Pediments with clay loamy gradational soils formed on fine grained
			<u> </u>		outwash.
KFl	0.6	Pediments	A5	D	KFA Plains. KFI Gently undulating pediment with 10-20% gullied land and 5-10%
					scalded. Moderate subsoil salinity occurs. Slopes: 1-3%, relief: < 9m.
					Main soils: <u>rubbly calcareous clay loam on clay</u> - <b>A5</b> with <u>clay loam</u> <u>over pedaric red clay</u> - <b>D4</b> .
KGB	2.0	Gently	C3	D	Pediments and plains with sandy clay loam surfaced gradational soils
		undulating	C1		formed on outwash sediments.
KGE	1.3	pediments Creek flat	C3C1	D	KGB Gently undulating pediments, with minor scalding and gullying. Subsoils: moderately saline. Slopes: 1-3%, relief: < 9m.
KGF	0.2	Plains	C3C1	D	KGE Creek flat with stable gullied banks. Subsoils moderately saline.
KGG	3.8	Gently	C3C1	D	KGF Plains with 5-10% scalded and 0-5% gullied land. Subsoils are moderately saline.
il I		undulating			
1		pediments			KGG Gently undulating pediments, with 5-10% of land affected by





		nodiments	C1		1 39 rolinf is loss than 9m
KGV	4.8	pediments Gently	C1 C3C1	D	1-3%, relief is less than 9m.  KGH Undulating pediments, with 0-5% of land affected by gullying
KOV	4.0	undulating	CSC1		and 5-10% scalded. Subsoils are moderately saline.
		pediments			KGV Gently undulating pediments with 10-50% scalding and minor
KGY	0.4	Creek flat	C3C1	D	gullying. Subsoils are moderately saline. Slopes: 1-3%, relief: <9m.
KGk		Plains	C3C1	D	KGY Creek flat with stable gullies and 5-10% scalding. Subsoils are
KGl	0.4	Gently	C3C1	D	moderately saline.
		undulating			KGk Plains with more than 20% gullied land and 10-50% scalded. Subsoils are moderately saline.
		pediments			KGI Gently undulating pediments with 10-50% scalding and 10-20%
					gullying which is locally more severe along drainage lines. Subsoils are
					moderately saline. Slopes: 1-3%, relief: less than 9m.
					Main soils: <u>friable gradational sandy clay loam</u> - C3 and <u>gradational</u>
MILE	1.1	Dania	A 4D 4	_	sandy loam - C1.
KHE	1.1	Drainage lines	A4D4 C1	D	Drainage line on gently undulating pediments formed on outwash. Slopes are 1-3%, relief is less than 9m.
		111103			Main soils: deep (rubbly) calcareous sandy loam - <b>A4</b> , loam over
					pedaric red clay - <b>D4</b> and gradational sandy loam - <b>C1</b> .
KJB	0.2	Gently	C4C3	D	Pediments with clay loamy gradational soils formed on fine grained
		undulating	A6		outwash. Subsoils are moderately saline.
VIC	1 7	pediments	0.400	_	<b>KJB</b> Gently undulating pediments. Slopes: 1-3%, relief: less than 9m.
KJG	1.7	Gently undulating	C4C3 A6	D	<b>KJG</b> Gently undulating pediments with up to 20% gullying. Slopes are 1-3%, relief is less than 9m.
		pediments	,		<b>KJH</b> Undulating pediments with up to 20% gullying. Slopes are 3-10%,
KJH	3.3	Undulating	C4C3	D	relief is less than 9m.
		pediments	A6		KJJ Drainage line with more than 20% gullying.
KJJ	0.2	Drainage 	C4C3	D	<b>KJV</b> Gently undulating pediments with up to 50% scalding and less
17.13.7	0.0	lines	A6	_	than 5% gullying. Slopes are 1-3%, relief is less than 9m. <b>KJW</b> Undulating pediments with 0-5% gullying and 5-10% scalding.
KJV	0.3	Gently undulating	C4C3 A6	D	Slopes are 3-10%, relief is less than 9m.
		pediments	Ao		Main soils: <u>hard gradational clay loam</u> - <b>C4</b> , <u>friable gradational clay</u>
KJW	0.6	Undulating	C4C3	D	<u>loam</u> - <b>C3</b> and <u>gradational calcareous clay loam</u> - <b>A6</b> , with <u>rubbly</u>
		pediments	A6		<u>calcareous clay loam on clay</u> - <b>A5</b> and <u>clay loam over pedaric red</u> <u>clay</u> - <b>D4</b> .
KLB	4.3	Gently	A5	D	Pediments formed on a complex of outwash sediments and fine
ILLD	1.0	undulating	7.0		grained basement rocks. Soils are mostly calcareous loams. Subsoils
		pediments			are moderately saline.
KLC	0.7	Undulating	A5	D	KLB Gently undulating pediment. Slopes: 1-3%, relief: < 9m.
VI C	2.7	pediments	٨٠	<u> </u>	KLC Undulating pediment. Slopes are 3-10%, relief is less than 9m.
KLE	3./	Drainage lines	A5	D	KLE Drainage line. KLG Gently undulating pediment with 5-10% gullying. Slopes are 1-3%,
KLG	0.5		A5	D	relief is less than 9m.
	3.0	undulating			KLH Undulating pediment; gullying affects 5-10% of land, around 5% is
		pediments			scalded. Slopes are 3-10%, relief is less than 9m.
KLH	1.0	Undulating	A5	D	<b>KLJ</b> Drainage line with 0-5% gullied, severe in places, and 0-5%
KLJ	2.2	pediments	ΛF	<u> </u>	scalding. <b>KLU</b> Level plains with 5-10% scalding.
KLJ	2.2	Drainage lines	A5	D	KLV Gently undulating pediment with 0-5% gullying and 5-10%
KLU	0.2	Plains	A5	D	scalding. Slopes are 1-3%, relief is less than 9m.
KLV		Gently	A5	D	KLW Undulating pediment, around 5% of land is scalded. Slopes are
		undulating			3-10%, relief is less than 9m.
177 333		pediments			KLI Gently undulating pediment with over 20% gullying and 5-10% scalding. Slopes are 1-3%, relief is less than 9m.
KLW	1.3	Undulating	A5	D	KLm Undulating pediment with 5-10% of land scalded and 5-10%
***		pediments			gullied. Slopes are 3-10%, relief is less than 9m.
KLl	0.4	Gently	A5	D	Main soils: rubbly calcareous loam on clay - A5 on outwash, with
		undulating pediments			shallow calcareous loam - A2, gradational loam on rock - C2 and
KLm	1.4	Undulating	A5	D	shallow calcareous loam on calcrete - <b>B2</b> formed on rock.
		pediments	1		
KMG	2.4	Pediments	A6A5	D	Gently sloping pediments formed on outwash sediments with mainly
					loamy soils. Subsoils are moderately saline. Slopes: 1-3%, relief: < 9m.
					Main soils: gradational calcareous loam - A6 and rubbly calcareous





					loam on clay - A5, with loam over red clay - D2.
KQV	0.1	Pediments Low rises	A5A2	V C	Complex of gently undulating pediments and low basement rock rises with mostly calcareous gradational soils. Up to 10% of pediment land is scalded, and around 5% is gullied. Rises are generally not gullied and scalding occurs on less than 5%. Slopes: 1-3%, relief: less than 9m. Main soils: rubbly calcareous clay loam on clay - A5 with clay loam over pedaric red clay - D4 on pediments, and shallow calcareous loam - A2 with shallow calcareous loam on calcrete - B2 and rock outcrop - RR on rises.
KXJ	0.5	Drainage lines	C1	D	Drainage lines with sandy loam surfaced gradational soils formed in sandy alluvium.
KXJJ	0.5	Drainage lines	C1	D	KXJ Drainage line with 10-20% gullied land and 0-5% scalded. KXJJ Drainage line with over 20% gullied land. Subsoils are
KXY	0.3	Drainage lines	C1	D	moderately saline. <b>KXY</b> Drainage line with stable gullies and 5-10% scalded land. Subsoils are moderately saline.  Main soils: gradational sandy loam - C1, with rubbly calcareous clay loam on clay - A5 and deep moderately calcareous sandy loam - A3.
KlB	0.1	Gently undulating pediments	C1D5	D	Pediments with sandy loam surfaced soils formed on coarse to medium grained outwash sediments. Subsoils are moderately saline.  KIB Gently undulating pediments. Slopes: 1-3%, relief: < 9m.
Kll	2.6	Gently undulating pediments	C1D5	D	KII Gently undulating pediments with 10-20% gullying and 5-10% scalding. Slopes are 1-3%, relief is less than 9m.  Main soils: gradational sandy loam - C1 and hard loamy sand over red clay - D5, with loam over pedaric red clay - D4.
XHA	0.5	Alluvial plains	M1C1 C3	D	Alluvial plains and creek flats with mostly loam to sandy loam soils.  XHA Alluvial plains
XHB	1.4	Creek flats	M1C1 C3	D	XHB Creek flats with eroded watercourses.  Main soils: <u>deep alluvial loam</u> - M1, <u>gradational sandy loam</u> - C1 and <u>friable gradational sandy clay loam</u> - C3, with <u>loam over pedaric red</u> <u>clay</u> - D4.

# 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)

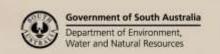
## Detailed soil profile descriptions:

- A2 Shallow calcareous loam (Paralithic, Hypercalcic / Lithocalcic Calcarosol)

  Calcareous stony loam grading to soft or rubbly carbonate over weathering dolomite or calcsiltstone 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 <u>Deep (rubbly) calcareous sandy loam (Regolithic, Hypercalcic / Lithocalcic Calcarosol)</u>
  Calcareous sandy loam to sandy clay loam grading to a very highly calcareous sandy clay loam to light clay with variable rubble, continuing below 120 cm.
- Rubbly calcareous loam to clay loam on clay (Regolithic, Supracalcic / Lithocalcic 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 <u>Gradational calcareous clay loam to loam (Pedal, Hypercalcic / Supracalcic Calcarosol)</u>
  Calcareous loam to clay loam grading to a well structured very highly calcareous (sometimes rubbly) clay, over a red clayey substrate within 120 cm.
- 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.





- Shallow red loam on calcrete (Petrocalcic, Red Dermosol / Kandosol)

  Medium thickness loam grading to a friable clay loam over calcrete capped rock within 50 cm or semi-hard carbonate grading to weathering rock within 100 cm.
- C1 <u>Gradational sandy loam (Hypercalcic, Red Kandosol)</u>
  Friable sandy to loamy topsoil grading to massive red-brown alkaline loamy to clay loamy subsoil, highly calcareous with depth, over alluvium.
- C2 <u>Gradational loam on rock (Calcic / Hypercalcic Red Dermosol)</u>
  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 (sandy) 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, overlyingalluvium within 100 cm.
- Hard gradational clay loam (Sodic, Hypercalcic, Red Dermosol)
  Hard setting loam to clay loam grading to a coarsely structured dispersive red clay, highly calcareous with depth, over clayey alluvium. Includes eroded former texture contrast soils.
- D1 Loam to clay loam over red 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.
- Loam to clay loam over red clay (Calcic / Hypercalcic, Red Chromosol)

  Hard setting sandy loam to clay loam (with variable quartzite stones) abruptly overlying a well structured red clay with soft Class I carbonate at depth.
- Loam to clay loam over pedaric red clay (Calcic, Pedaric, Red Sodosol)

  Thin to medium thickness fine sandy loam to loam over a finely structured friable red clay, calcareous from about 50 cm, grading to fine or medium grained alluvium.
- Pard loamy sand over red clay (Calcic / Hypercalcic Red Chromosol / Sodosol)
  Hard setting loamy sand to light sandy loam with a poorly structured red alkaline clayey to clay loamy subsoil.
- Sandy loam to 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.
- Red cracking clay (Epicalcareous, Epipedal, Red Vertosol)

  Dark strongly structured clay grading to a well structured red calcareous medium to heavy clay continuing below 100 cm. Often contain gypsum segregations in subsoil.
- J1 <u>Ironstone gravelly clay loam over brown clay (Ferric, Calcic, Brown Sodosol)</u>
  Ironstone gravelly clay loam to loam overlying a brown alkaline clayey subsoil, calcareous with depth, grading to highly weathered, kaolinized sediments or basement rocks.
- Shallow stony loam (Paralithic, Leptic Tenosol)
  Shallow stony loam, often calcareous with depth, overlying weathering fine grained rock shallower than 50 cm.
- M1 <u>Deep alluvial loam (Calcareous, Regolithic, Brown-Orthic Tenosol)</u>
  Very thick brown loam to sandy loam, usually calcareous with depth, continuing below 100 cm.
- M3 <u>Deep gravelly soil (Basic, Fluvic, Clastic Rudosol OR Basic, Regolithic, Red-Orthic Tenosol)</u>
  Thick to very thick sandy loam with more than 50% quartzite stones overlying boulder beds.
- RR Rock outcrop

Further information: DEWNR Soil and Land Program

