KRG Krongart Land System

Area: 322.0 km²

Landscape: Plains with mainly dark coloured, medium to fine textured soils. Small swamps are common

Annual rainfall: 680 – 750 mm average

Geology: Lagoonal calcareous mudstones and clays of the Pleistocene Padthaway Formation.

Main soils: G3 (20%) Thick sand over clay (sandy Brown-Red Chromosol-Sodosol)

N3 (15%) Wet soil (non to moderately saline) (Sodosolic-Calcarosolic-Dermosolic Hydrosol)
 M4 (9%) Deep hard gradational sandy loam (Hard Brown--Dark Kandosol- Dermosol)
 F2 (8%) Loam over poorly structured brown or dark clay (Brown-Dark Sodosol-Chromosol)

E3 (8%) Brown or grey cracking clay (Brown-Grey Vertosol)

Minor soils: C5 (7%) Gradational dark clay loam (Calcic-Hypercalcic Brown-Grey-Black Dermosol-

Calcarosol)

E1 (6%) Black cracking clay (Black Vertosol)

G4 (6%) Sand over poorly structured clay (sandy Brown-Red Sodosol-Chromosol)

G5 (4%) Sand over acidic clay (sandy Brown Kurosol)

(4%) Wet highly leached sand (Aquic or Semi-Aquic Podosol)

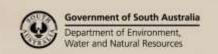
Summary: The main limitations of the soils are poor drainage/waterlogging associated with the low relief

and poor external drainage of the landscape as well as the poorly drained nature of the soils

themselves.

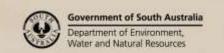
Soil Landscape Unit summary: Krongart Land System (KRG)

SLU	% of area	Component	Main soils	Prop#	Notes
M-A	0.4	Plain	B3B7	D	Plain with very shallow sand, often over thin, poorly structured dark
		Swamp	N1N3	М	brown clay on calcreted calcarenite. >50% exposed calcrete. <10% swamps with peat and organic loam soils.
					Main soils:
					Plains: Shallow sandy loam on calcrete - B3 and Sand over friable
					<u>brown clay on calcrete</u> - B7 .
					Swamps: Peaty soil – N1 and Wet clay loam - N3.
MXL	0.3	Undulating	B5	V	Gently undulating plain with dark grey clay loam over calcreted
		plain			calcarenite. 10-30% bare calcrete. 10-20% swampy depressions with
		Swamp	N3N1 M4	L	organic clay loam often over clay, or peat soils.
					Main soils:
					Plains: Shallow dark clay loam on limestone - B5.
					Swamps: Wet clay loam - N3, Peaty soil - N1 and Deep hard
					gradational sandy loam - M4 .
NDC	1.1	Plain	G3	V	Plains with deep sand over brown clay soils with 20-30% low stony
		Stony rise	B6B4	С	rises with shallow clay loam soils, often over grey or red clay; on
			В3		calcrete. 10-30% of the area of the rises is bare calcrete.



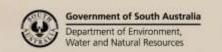


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					Main soils:
					Plains: Thick sand over clay - G3.
					Stony rises: Shallow sandy loam over red-brown clay on calcrete -
					B6 , <u>Shallow red loam on limestone</u> - B4 and <u>Shallow sandy loam on calcrete</u> - B3 .
NJA	0.1	Plain	M4	D	NJA Plain with deep clay loam or clay, grading to dark, poorly
NJS	3.9	Plain	M4E1	Е	structured clay.
		Sandy rise	G3	С	NJS As above plain with 20-30% sandy rises with deep sand over
		Swamp	N3	L	brown clay soils; 10-20% swamps with dark cracking clay soils.
					Main soils:
					Plains: Deep hard gradational sandy loam - M4 and Black cracking
					<u>clay</u> - E1 .
					Sandy rises: Thick sand over clay - G3. Swamps: Wet clay loam - N3.
NjK	0.0	Plain	G3	V	Plains with deep acid sand over brown clay; 20-30% sandy rises with
NJIX	0.0	Sandy rise	I2H3	C	moderately drained deep acid sands with coffee rock or clay subsoils;
		Salidy lise	G3		<10% swamps with dark clay.
		Swamp	N3M4	М	Main soils:
					Plains: Thick sand over clay - G3.
					Sandy rises: Wet highly leached sand - 12, Bleached siliceous sand -
					H3 and Thick sand over clay - G3.
					Swamps: Wet clay loam - N3 and Deep hard gradational sandy loam
					- M4.
NLH	0.1	Rise	B5B6	D	NLH Rises with shallow black clay loam to clay; or shallow red loam
NLM	2.2	Plain	G3B7	V	over red clay; on calcrete.
		Stony rise	B6B5	L	NLM Plains with sand over brown clay, often over calcrete. 1-20%
		-	В3		stony rises with shallow sandy loam, often over thin red clay; or thin
					dark clay on calcrete.
					Main soils:
					Stony rises: Shallow dark clay loam on limestone - B5, Shallow sandy
					loam over red-brown clay on calcrete - B6 and Shallow sandy loam
					on calcrete - B3 .
					Plains: Thick sand over clay - G3 and Sand over friable brown clay
					on calcrete - B7 .
NlM	0.1	Plain	B5E1	V	Plains with black clay soils, mostly shallow over calcrete; 20-30%
		Stony rise	B2B5	С	stony rises with often calcareous black clay on calcrete.
		,			
					Main soils:
					Plains: Shallow dark clay loam on limestone - B5 and Black cracking
					clay - E1.
					Stony rises: Shallow calcareous loam on calcrete - B2 and Shallow
NmA	4.6	Plain	G3I2	D	dark clay loam on limestone - B5 . Plains with deep sand, mostly over brown clay, 10-30% acid sand
11111/1	4.0	i iaiii	UJIZ		over acid clay.
					, and the second
NMF	0.2	Diois	F2	\/	Main soils: Thick sand over clay - G3; Wet highly leached sand - I2.
INIVIE	0.2	Plain	F2	V	Plains with deep loam over poorly structured brown clay soils. NMF
		Swamp	N3F2	L	10-20% swamps with clay loam to clay over dark brown or grey clay, soils.
NMJ	2.9	Plain	M4 F2	V	NMJ As for NMF but also with <10% stony rises with shallow dark
1 11713	2.5	Swamp	N3F2	L	clay to clay loam over calcrete soils.
		Swamp	M4	-	NMK As for NMF also with <10% sandy rises with sand over brown
		Stony rise	B5B2	М	clay soils.
NMK	0.6	Plain	F2	٧	
		Swamp	N3F2	L	Main soils:
			M4	<u> </u>	Plains: Sandy loam over poorly structured brown or dark clay - F2 .



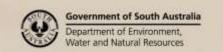


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					Stony rises: Shallow dark clay loam on limestone - B5 and Shallow
					calcareous loam on calcrete - B2 .
					Swamps: Wet clay loam - N3, Sandy loam over poorly structured
NnF	0.0	Diaire	F2CF	-	brown or dark clay - F2 & Deep hard gradational sandy loam - M4.
NIIF	0.8	Plain	F2C5	E	NnF Plains with dark clay loam over dark clay on calcrete or soft and
N/ N/	1.2	Swamp	N3E3	E	rubbly carbonate; co-dominant with swamps with dark cracking clay
NnV	1.3	Plain	B5C5	E	soils.
		Stony rise	B5B6	E	NnV Plains as above but co-dominant with stony rises with shallow
			B4		dark clay loam, often with red clay subsoils, over calcrete. 20-30%
		Sandy rise	G3I2	С	sandy rises with deep acid sand, mostly over brown clay soils. 20-30%
		Swamp	N3E3	С	swamps as above.
			M4		Main soils:
					Plains: Sandy loam over poorly structured brown or dark clay - F2,
					Shallow dark clay loam on limestone - B5 and <u>Gradational dark clay</u>
					loam - C5.
					Stony rises: Shallow dark clay loam on limestone - B5, Shallow sandy
					loam over red-brown clay on calcrete - B6 and Shallow red loam on
					limestone - B4 .
					Sandy rises: Thick sand over clay - G3; Wet highly leached sand - I2.
					Swamps: Wet clay loam - N3, Brown or grey cracking clay - E3 and
					Deep hard gradational sandy loam - M4.
NOA	0.5	Plain	C5	D	NOA Plains with mostly deep dark cracking clay soils on rubbly
NOU	5.1	Plain	C5	E	carbonate or marl. 10-30% low rises with shallow clay loam, often
NOU	3.1		N3	C	over well structured red–brown clay over calcreted calcarenite.
		Swamp	1	С	NOU Plain and low rises as above; 20-30% swamps with dark
		Lunette	B2A7	C	cracking clay soils; 20-30% lunettes with shallow and deep calcareous
					loam soils.
					IOdili SOIIS.
					Main soils:
					Plains: Gradational dark clay loam – C5.
					Swamps: Wet clay loam - N3.
					Lunettes: Shallow calcareous loam on calcrete - B2 and Calcareous
					<u>clay loam on marl</u> - A7 .
NpA	0.1	Plain	E1E3	D	NpA Plains with deep, black or dark grey cracking clay soils often
NpF	1.5	Plain	E1E3	V	with marly subsoils.
		Swamp	N3E1	L	NpF As above plains; 10-20% swamps with wet soils as above.
		'	E3		NpG Depression with soils as above, <10% swamps.
NpG	1.6	Depression	E1E3	D	NpH Slopes and plains with cracking clay soils as above.
r		Swamp	N3E1	M	<u> </u>
		~ · · · · · · · · · · · · · · · · · · ·	E3		Main soils:
NpH	0.7	Slopes/plain	E1E3	D	- Plains: Black cracking clay - E1 and Brown or grey cracking clay - E3.
1.17.1	0.7	Siopes, plain			Swamps: Wet clay loam - N3, Wet saline clay loam - N2c, Black
NOT				1,,	<u>cracking clay</u> - E1 and <u>Brown or grey cracking clay</u> – E3 .
NQF	3.1	Plain	C5	V	Plains with deep dark clay loam grading to dark grey clay soils, often
		Swamp	N3	E	with rubbly carbonates or marl subsoils.
					Main soils:
					Plains: Gradational dark clay loam – C5.
					Swamps: Wet clay loam - N3.
NrA	0.5	Plain	E3	D	NrA Plains with grey cracking clay soils; 10-30% each of clay loam
1 11/1	0.5		N3E1	М	over dark brown clay and deep acid sand over brown clay soils. <10%
		Swamp	E3	IVI	swamps with black and grey cracking clay soils.
NrF	1.7	Plain	1	V	NrF Plains with cracking clay soils as above; 10-20% swamps.
INIT	1./		E1E3	+	1111 Hailis With Clacking Clay Solls as above, 10-20 /0 Swallips.
		Swamp	N3	L	Main soils:
					Plains: Black cracking clay - E1; Brown or grey cracking clay - E3.
					Swamps: Wet clay loam - N3, Black cracking clay - E1 and Brown or
					grey cracking clay – E3.



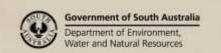


NIC A	1.4	Diain	T 6365	1 1/	NGA Plains with days and any offer strength and have also
NSA	1.4	Plain	G3G5	V L	NSA Plains with deep acid sand over, often strongly acid brown clay soils; 10-30% deep clay loam grading to brown clay soils. 10-20%
		Swamp	N3N1 WW	L	swamps with often wet, non-peaty clay loams, peat or water filled.
			VVVV		NSB Stony plains with deep acid sand over clay as above, co-
NSB	0.1	Stony plain	G3B5	D	dominant with shallow dark clay loam to clay, occasionally over
NSE	1.4	Undulating	G3G5	D	poorly structured clay, on calcrete.
NSE	1.4	plain	GSGS		NSE Undulating plains as for NSA.
NSF	3.0	Plain	G3	V	NSF Plains as for NSA; 20-30%swamps with non-peaty, dark grey
1451	5.0	Swamp	N3	C	clay loam to clay soils.
NSG	6.5	Drainage	N3E1	D	NSG Drainage depression with wet dark clay loams and black or
1100	0.5	depr	M4		grey cracking clay soils.
NSP	4.8	Plain	G3	V	NSP Plain as for NSA with 20-30% sandy rises with deep moderately
		Sandy rise	G3I2	С	well to poorly drained, bleached siliceous sand over brown clay or
NSS	0.4	Plain	G3	V	coffee rock.
		Swamp	N3	С	NSS Plain as for NSA above; 20-30% swamps with wet, dark, clay
		Sandy rise	G3I2	С	loamy to cracking clay soils; 20-30% sandy rises as for NSP .
		j			Main soils:
					Plains: Thick sand over clay - G3 and Sand over acidic clay - G5.
					Sandy rises: Thick sand over clay - G3; Wet highly leached sand - I2.
					Swamps and drainage depressions: Wet clay loam - N3, Black
					<u>cracking clay</u> - E1 and <u>Deep hard gradational sandy loam</u> - M4 .
NTF	1.1	Plain	G3F2	V	NTF Plains with sand to loam over brown to dark brown clay. 20-
		Swamp	F2N3	С	30% swamps with often wet, clay loam over dark brown clay soils.
NTP	2.4	Plain	G3G4	V	NTP Plains as above soils, often with poorly structured clay subsoils;
		Rise	G3I2	С	20-30% sandy rises with deep sands, mostly over brown clay, but also
		Swamp	G4N3	М	coffee rock. <10% swamps with sand over poorly structured clay and
			E3		cracking clay soils.
					Main soils:
					Plains: Thick sand over clay - G3, Sandy loam over poorly structured
					brown or dark clay - F2, Brown or grey cracking clay – E3 and Sand
					over yellow and brown clay - G4 .
					Swamps: Wet clay loam - N3, Sand over yellow and brown clay - G4,
					Brown or grey cracking clay – E3 and Sandy loam over poorly
					structured brown or dark clay - F2.
NuA	1 г	Dlain	ESNIS	_	Sandy rises: Thick sand over clay - G3; Wet highly leached sand - I2.
NuF	1.5 3.2	Plain Plain	F2N3 M4	D V	NuA Plains with wet non-cracking clay soils; 10-30% sand over brown clay on low rises.
Nui	3.2	Fiaili	M2F2	V	NuF Plains with clay loam over dark brown or grey clay soils, often
		Swamp	N3	С	poorly structured, 10-30% on calcareous rubble or marl substrate.
NuK	1.8	Plain	M4	V	20-30% swamps with mostly wet, non-cracking clay soils.
1,0011	2.0	i idiii	M2F2		NuK Plains as for NuF, 20-30% swamps, <10% sandy rises with
		Swamp	N3	С	deep sands, mostly over brown clay or coffee rock.
		Rise	G3I2	М	NuL Plains as for NuF above, <10% stony rises with shallow sandy
NuL	0.4	Plain	M4	V	loam over red clay on calcreted calcarenite, or deep sand over brown
			M2F2		clay, soils.
		Swamp	N3	С	NuP Plains as for NuF above. 20-30% sandy rises with deep well-
		Rise	B6G3	М	drained, water repellent acid sands.
NuP	0.6	Plain	M4	V	NuV Plains as for NuF above. 20-30% swamps with wet non
			M2F2		cracking, dark clay soils. 10-20% rises with deep calcareous clay loam over rubbly clay or shallow on calcrete soils.
		Sandy rise	H3I1	С	Over Tubbiy Clay of Stiallow off Calcrete Solls.
NuV	0.5	Plain	M4	E	Main soils:
			M2F2		Plains: Deep hard gradational sandy loam - M4, Deep friable
		Swamp	N3	С	gradational clay loam - M2, Sandy loam over poorly structured
		Rise	A7B2	L	brown or dark clay - F2 and <u>Wet clay loam</u> - N3 .
			1		Swamps: Wet clay loam - N3.



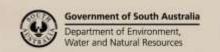


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					Sandy rises: Thick sand over clay - G3; Wet highly leached sand - I2.
				1	Stony rises: Calcareous clay loam on marl - A7 and Shallow
					<u>calcareous loam on calcrete</u> - B2 or <u>Shallow sandy loam over red-</u>
			_	ļ	<u>brown clay on calcrete</u> - B6 and <u>Thick sand over clay</u> - G3 .
NvA	1.3	Plain	G4	D	NvA Plains with thin sand, or occasionally loam, over poorly
NvD	0.5	Plain	G4	D	structured brown clay.
		Sandy rise	G5I2	М	NvD Plains as above, <10% sandy rises with deep acid bleached
NvF	5.4	Plain	G3G5	V	sand on acid clay or coffee rock.
		Swamp	N3M2	L	NvF Plains as for NvA , 10-20% swamps with often wet, dark grey
			M4		clay loam over clay soils.
NvK	5.1	Plain	M4E3	V	NvK Plains as for NvA , 10-20%swamps with dark clay loam to clay
		Swamp	N3M4	L	over dark clay soils, <10% sandy rises with deep sand over brown
			E3		clay or coffee rock, soils.
		Rise	G3I2	М	NvO Plains with loam over mostly, poorly structured, dark brown
NvO		Plain	F2	V	clay soils. 20-30% rises also with shallow loam over red clay or deep
		Rise	F2F1	С	bleached sand.
NvP	3.2	Plain	G3G4	V	NvP Plains with thick and thin sand over poorly structured brown
		Sandy rise	G3I2	С	clay soils. 20-30% sandy rises with deep sands, over brown clay
		Swamp	N3M4	М	and/or coffee rock. <10% swamps with dark clay loam to clay over
			E3		dark brown or grey clay.
NvQ	1.1	Stony plain	G3	V	NvQ Stony plains with both deep sand over clay and sand over poorly structured brown clay on calcrete. 20-30% sandy rises with
		Sandy rise	G3I2	С	deep sand over brown clay and/or coffee rock. <10% dark clay loam
		Swamp	N3M4	М	or clay swamps.
		,	E3		NvS Plains as for NvO; 10-20% sandy rises with deep sand over
NvS	1.0	Plain	F2	V	brown clay and/or coffee rock; 10-20% dark clay loam or clay
		Sandy rise	G3I2	L	swamps.
		Swamp	N3M4	L	- swamps.
		'	E3		Main soils:
					Plains: Sand over yellow and brown clay - G4, Thick sand over clay -
					G3, Sand over acidic clay - G5, and Sandy loam over poorly
					structured brown or dark clay - F2 .
					Sandy rises: Thick sand over clay - G3, Sand over acidic clay - G5
					and Wet highly leached sand - I2.
					Swamps: Wet clay loam - N3, Deep hard gradational sandy loam -
					M4 and <u>Brown or grey cracking clay</u> – E3.
NwF	4.1	Plain	C5E3	V	Plains with deep dark grey clay loam or clay over dark grey clay on
		Swamp	N3E3	С	marl. 20-30% swamps with dark, often cracking clay soils, 10-30%
			M4		water filled.
					Main soils:
				1	Plains: Gradational dark clay loam – C5 and Brown or grey cracking
					clay – E3.
					Swamps: Wet clay loam - N3, Brown or grey cracking clay – E3 and
				1	Deep hard gradational sandy loam - M4.
NYF	1.7	Plain	B5C5	E	Plains with mostly shallow, dark cracking clay over calcreted marl; co-
1,11	±.,	Swamp	N3M2	E	dominant with swamps, which have wet, dark non-cracking clays.
		Swamp	1431417	-	
					Main soils:
					Plains: Shallow dark clay loam on limestone - B5 and Gradational
				1	<u>dark clay loam</u> – C5 .
					Swamps: Wet clay loam - N3 and Deep friable gradational clay loam
			_	ļ	- M2.
NzF	0.9	Plain	G4F2	V	NzF Plains with thin or thick loam over poorly structured dark brown
		Swamp	N3M4	L	clay. 10-20% swamps with, often wet, dark clay loam to clay over
			E3		dark clay.
NzP	2.7	Plain	G4F2	V	NzP Plains as above, but with 20-30% sandy rises with deep sand,
li		Sandy rise	G3	C	mostly over brown clay, soils. <10% swamps as above.





		Swamp	N3M4	М	NzS Plains with mostly thin, acid sand over poorly structured brown
			E3		clay. 20-30% sandy rises with deep acid sands, over acid brown clay
NzS	0.1	Plain	G4	V	and/or coffee rock. 20-30% swamps with wet loam over poorly
		Sandy rise	G5I2	С	structured dark clay soils.
		Swamp	N3	С	Main soils:
					Plains: Sand over yellow and brown clay - G4 and Sandy loam over poorly structured brown or dark clay - F2 .
					Sandy rises: Thick sand over clay - G3, Sand over acidic clay - G5
					and Wet highly leached sand - 12.
					Swamps: Wet clay loam - N3, Deep hard gradational sandy loam -
					M4 and Brown or grey cracking clay – E3.
OND	0.1	Low dune	H3I2	D	Low dunes with deep acid well-drained bleached sand, often with
OND	0.1	Low durie	ПЭІД		·
					coffee rock on lower slopes or swales, where wetter conditions
					prevail.
					Main soils: <u>Bleached siliceous sand</u> - H3 and <u>Wet highly leached</u>
					sand - 12.
PFj	0.03	Rise	I1H3	V	Rises and sand plains with deep, well-drained, moderately water
J			G3		repellent, bleached siliceous sands, often with clay or coffee rock
		Plain	I2N3	L	subsoil, especially on less well-drained situations such as occur on
			G3		the lower slopes of rises. 10-20% sand plains, 10-20% swamps with
		Swamp	N3	L	mostly wet, dark clay loam over dark clay soils.
					Main soils:
					Rises: Highly leached sand - I1, Bleached siliceous sand - H3 and
					<u>Thick sand over clay</u> - G3 .
					Plains: Wet highly leached sand - I2, Wet clay loam - N3 and Thick
					sand over clay - G3.
					Swamps: Wet clay loam - N3.
PLa	0.6	Plain	I2G3	V	Sand plains with poorly drained deep sand over coffee rock and/or
		Dune	I1I2	L	brown clay. 10-20% well to moderately drained deep sand often on
		Swamp	N1N3	М	coffee rock and/or brown clay. <10% swamps with peat or sandy
			WW		loam over dark clay soils or water filled.
					Main soils:
					Plains: Wet highly leached sand - I2 and Thick sand over clay - G3.
					Dunes: Highly leached sand - I1 and Wet highly leached sand - I2.
					Swamps: Peaty soil – N1 and Wet clay loam - N3.
PPB	0.1	Rise	I1I2	D	Low sand rises with deep siliceous, water repellent, highly leached,
	0.1	Nise	1112		siliceous sand, often less well-drained over coffee rock or brown clay,
					especially on lower slopes.
					especially of fower stopes.
					Main soils: <u>Highly leached sand</u> - I1 ; <u>Wet highly leached sand</u> - I2 .
PQp	0.2	Plain	G3I2	V	Sand plain with mostly acid, deep moderately well drained sand over
-1		Swamp	N3M2	L	acid brown clay. 10-20% poorly defined swamps and flats with dark
					brown clay and loam over mottled clay soils. Some ironstone gravel
					in sub-surface horizons.
					Main soils:
					Plains: Thick sand over clay - G3 and Wet highly leached sand - I2.
					Swamps: Wet clay loam - N3 and Deep friable gradational clay loam
					- M2.
Xe-	0.1	Lunette	B7F2	D	Lunette with clay loam over poorly structured dark brown clay soils,
					commonly over calcrete.
					Main soils: <u>Sand over friable brown clay on calcrete</u> - B7 and <u>Sandy</u>
					loam over poorly structured brown or dark clay - F2 .
					ioain over poorty structured brown of dalk clay - r2.

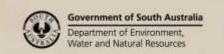




Xl-	0.05	Lake	WW	D	Water filled.
XRC	1.3	Swamp	N3	D	XRC Swamps with dark grey clay soils, often cracking.
XRe	1.2	Swamp	N3E3	V	XRe As above with 20-30% lunettes or hummocks with clayey
		Lunette	A7G3	С	calcareous soils on marl and sand over dark clay soils.
XRf	1.1	Swamp	N3	V	XRf Swamps, with dark, mostly wet, cracking clay soils. 10-20% stony
		Stony rise	B5B2	L	rises with shallow dark grey clay loam, often on dark clay, over
					calcrete, sometimes calcareous throughout.
					Main soils:
					Swamps: Wet clay loam - N3 and Brown or grey cracking clay - E3.
					Lunettes: Calcareous clay loam on marl - A7 and Thick sand over
					clay - G3 .
					Stony rises: Shallow dark clay loam on limestone - B5 and Shallow
					<u>calcareous loam on calcrete</u> - B2 .
XtC	0.1	Swamp	N1	D	XtC Swamps with neutral to alkaline peat soils and some deep dark
		·			grey clay soils.
					Main soils: <u>Peaty soil</u> – N1 .
XuC	2.2	Swamp	N3	D	XuC Swamps with mostly non-peaty wet soils, but peats occur in up
Xud	1.0	Swamp	N3	V	to 30% of areas.
		Sandy rise	G3I2	L	Xud Non-peaty swamps with 20-30% sandy rises with deep sand
Xue	1.8	Swamp	N3	V	over brown clay soils.
		Rise	A6B2	L	Xue Swamps as for XuC, 30% water filled; 20-30% lunettes with
Xuf	0.1	Swamp	N3	V	shallow dark clay on calcrete, loam over dark grey clay on calcrete or
		Stony rise	B2B3	С	shallow loam on calcrete, soils.
			B5		Xuf Swamps as for XuC above, with stony rises and/or very shallow over calcrete.
					over calcrete.
					Main soils:
					Swamps: Wet clay loam - N3 and Peaty soil - N1.
					Stony rises: Shallow calcareous loam on calcrete - B2, Gradational
					<u>calcareous clay</u> - A6 , <u>Shallow sandy loam on calcrete</u> - B3 and
					Shallow dark clay loam on limestone - B5 .
					Sandy rises: Thick sand over clay - G3; Wet highly leached sand - I2.
XxC	0.2	Swamp	N1N3	D	XxC Swamp with acid peat, or non-peaty loam over dark clay soils or
			WW		water filled.
					Main soils:
					Swamps: Peaty soil – N1 and Wet clay loam - N3.

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)

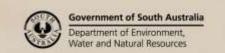




B4

Detailed soil profile descriptions:

- **A6** Gradational calcareous clay loam (Pedal Hypercalcic-Lithocalcic Calcarosol on clayey subsoil) Calcareous loams to clay loams grading into brown-red clay. Often rubbly.
- Calcareous clay loam on marl (Marly Calcarosol) **A7** Dark calcareous clay with a marly subsoil (often saline in Upper SE). Often with shells and a peaty surface.
- **B2** Shallow calcareous sandy loam on calcrete (Petrocalcic Calcarosol) Up to 40 cm calcareous loamy sand to sandy loam with variable calcrete rubble overlying calcreted calcarenite - rises.
- **B3** Shallow sandy loam on calcrete (Petrocalcic Rudosol) Medium thickness non calcareous sandy loam, often having a slight clay increase with depth, over calcreted calcarenite shallower than 50 cm - rises.
- Red sandy loam over calcrete (Petrocalcic, Red Dermosol) Medium thickness red sandy loam grading to friable red clay loam over calcreted calcarenite within 50 cm rises.
- **B5** Shallow dark clay loam on limestone (Petrocalcic, Black Dermosol) Black clay loam to light clay over calcreted limestone at shallow depth, grading to highly calcareous clay -
- **B6** Shallow sandy loam over red-brown clay on calcrete (Petrocalcic, Red Kandosol) Medium thickness sandy loam with slight ironstone gravel overlying a weakly structured reddish brown sandy clay on calcarenite within 50 cm - rises.
- **B7** Shallow sand over sandy clay on calcrete (Petrocalcic, Brown Chromosol) Medium thickness sand overlying brown friable sandy clay to clay on limestone or calcreted sandy clay within 50 cm - flats.
- **C5** Gradational dark clay loam (Calcic-Hypercalcic Brown-Grey-Black Dermosol-Calcarosol) Dark clay loam over abundant 'soft lime'. >10% carbonate is the cut off between this and M2 soils.
- **E1** Black cracking clay (Black Vertosol)
- **E3** Brown or grey cracking clay (Brown-Grey Vertosol)
- F1 Loam over brown or dark clay (Brown-Dark Chromosol-Sodosol) Topsoil >30 cm over a poorly structured subsoil, or else, subsoil structure is good. Loamy to clay loamy texture contrast soil with brown clayey subsoil. Loamy, reasonable depth A, and OK structured clay subsoil.
- F2 Sandy loam over poorly structured brown or dark clay (Brown-Dark Sodosol-Chromosol) Topsoil <30 cm over a poorly structured subsoil. Loamy, often sandy loam, to clay loamy texture contrast soil with a sodic/dispersive/poorly structured brown clayey subsoil. Often sandy loam, usually with a bleached horizon, and thin topsoil over a poorly structured B.
- G3 Thick sand over clay (Hypercalcic, Brown Sodosol/ Chromosol) Thick bleached sand with an organically darkened surface abruptly overlying a massive to coarsely structured brown to reddish yellow sandy clay to clay, calcareous with depth - rises.
- Sand over poorly structured clay (Sandy Brown-Red Sodosol-Chromosol) G4 Topsoil <30 cm over a poorly structured subsoil. Thin sandy texture contrast soil with a sodic /dispersive /poorly structured brown or red clayey subsoil. Can have some ironstone.
- G5 Sand over acidic clay (Sandy Brown Kurosol) Sandy texture contrast soil with a friable brown strongly acidic clayey to clay loamy subsoil. Very acidic soil; incipient Bh horizons; moderate depth topsoils. Some with ironstone.





- H3 <u>Deep bleached sand (Basic, Arenic, Bleached-Orthic Tenosol)</u>
 Grey sand over very thick bleached sand grading to yellow sand continuing below 100 cm.
- Highly leached sand (Fragic, Pipey, Aeric Podosol)

 Grey sand with a very thick bleached A2 layer, over dark brown and yellow massive soft to semi-hard clayey sand (coffee rock), grading to softer yellow and brown sand to sandy clay loam from about 80 cm.
- Wet highly leached sand (Fragic, Humic, Aquic Podosol)
 Grey sand with a thick bleached A2 horizon, overlying a thin to thick layer of coffee rock, grading to pale brown sand sharply overlying a grey, brown and yellow mottled sandy clay loam to light clay.
- M2 <u>Deep friable gradational clay loam (Red-Brown-Grey- Black Dermosol)</u> Deep well structured red clay loamy soil.
- M4 <u>Deep hard gradational sandy loam (Hard Brown-Dark Kandosol- Dermosol)</u>
 Deep dark brown loamy to clay loamy soil grading to clay at depth. Hardsetting surface often with prismatic structures in the subsoil.
- N1 Peat (Organosol)
 Peaty soil.
- N3 Seasonally waterlogged, non to marginally saline equivalents of soils listed above, viz.:

N3c Wet G3N3d Wet B5N3e Wet B7

WW Water

Further information: DEWNR Soil and Land Program

