

HAW Hawdon Land System

Area: 88.5 km²

Landscape: Swampy to wet, seasonally inundated lacustrine plains, east of Robe, often with saline, sometimes shallow, soils on calcreted lake sediments.

Annual rainfall: 655 – 710 mm average

Geology: Holocene lacustrine or playa sediments and Late Pleistocene clayey, shelly and calcreted sediments of the Glanville Formation.

Main soils: **N2** (62%) Saline soil (Salic-Hypersalic Hydrosol)
N3 (10%) Wet soil (non to moderately saline) (Sodosolic-Calcarosolic-Dermosolic Hydrosol)

Minor soils: **N1** (7%) Peaty soil (Organosol)
WW (7%) Water
B5 (5%) Shallow dark clay loam on limestone (Petrocalcic Black-Grey Dermosol)

Summary: The soils are either saline or wet. Land use here is restricted to summer grazing or mineral extraction activities from the lake sediments.

Soil Landscape Unit summary: Hawdon Land System (HAW)

SLU	% of area	Component	Main soils	Prop#	Notes
NBu	14.5	Plain	N2B5	V	Plains with shallow, mostly wet, dark cracking clay over calcreted marl or lacustrine sediments. 20-30% salt pans with highly saline cracking clay soils, or occasionally inundated. 10-20% lunettes with gypsic calcareous grey clay loam, over clay or on calcrete. Main soils: Plains: <u>Wet saline clay loam - N2c</u> and <u>Shallow dark clay loam on limestone - B5</u> Salt pans: <u>Wet saline clay loam - N2c.</u> Lunettes: <u>Gypseous calcareous loam - A8.</u>
		Salt pan	N2	C	
		Lunette	A8	L	
VoP	0.8	Flat	A1B3	V	Flats with shelly calcareous sand grading to sandy loam; or shallow sandy loam on calcrete. Minor sand over grey clay on flats. 10-20% stony rises with sandy loam over red clay on calcrete. Main soils: Flats: <u>Highly calcareous sandy loam - A1</u> and <u>Shallow loam on calcrete - B3.</u> Stony rises: <u>Shallow loam on calcrete - B3</u> and <u>Shallow sandy loam over red-brown clay on calcrete - B6.</u>
		Stony rise	B3B6	L	
VpC	0.2	Salty swamp	N2	D	Swamps with wet saline dark clay loam soils. Main soils: <u>Wet saline clay loam - N2c.</u>
XtC	7.4	Swamp	N1A7	D	Peat swamps or with calcareous dark loam over clay on marl. 10-30% of area is; often wet, non-peaty, dark loam over dark clay. Main soils: <u>Peaty soil - N1</u> and <u>Calcareous clay loam on marl - A7.</u>
ZA-	0.3	Plain	N1B3	D	Moderately saline lacustrine plain with peaty soils or shallow sandy loam over calcrete. 10-30% saline wet soils. Main soils: <u>Peaty soil - N1</u> and <u>Shallow loam on calcrete - B3.</u>



ZD-	32.3	Salt lake	N2	D	Lake bed with bare salt crust. Highly saline clay loamy soils. 10-30% inundated. Main soils: <u>Wet saline clay loam - N2c</u> .
ZE-	31.5	Lake margin	N2	D	Lake margin with loamy wet, saline soils; occasionally non-saline or peaty. Main soils: <u>Wet saline clay loam - N2c</u> .
ZP-	1.5	Lagoonal depression	N2	D	Lagoonal depression with dark, wet, mostly highly saline clay loam soils. Main soils: <u>Wet saline clay loam - N2c</u> .
ZX-	11.4	Lagoonal depression	N2	V	Lagoonal depression as above; 20-30% lunettes with shallow loam on calcrete or deep, calcareous, dark grey, loam over clay loam on marl. Main soils: Lagoonal depressions: <u>Wet saline clay loam - N2c</u> . Lunettes: <u>Shallow loam on calcrete - B3</u> and <u>Calcareous clay loam on marl - A7</u> .
		Lunette	B3A7	C	

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:

- A1** Highly calcareous sandy loam (Supravescent Calcarosol)
Deep to moderate depth carbonate dominant soils. Loamy sand to sandy loam over sandy loam to sandy clay loam. Carbonate dominates the soil profile as a whole, however, the surface soil may not be carbonate dominant, but must contain 30% or more carbonate.
- A7** Calcareous clay loam on marl (Marly Calcarosol)
Dark calcareous clay with a marly subsoil (often saline in Upper SE). Often with shells and a peaty surface.
- A8** Gypseous calcareous loam (Gypseous Calcarosol)
Calcareous soil with a Gypsic horizon (>20% visual gypsum in a horizon which is at least 10cm thick). Found on lunettes, flats, etc.
- 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.
- 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 - flats.
- 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.
- N1** Peat (Organosol)
Peaty soil
- N2c** Wet saline clay loam (Dermosolic, Salic Hydrosol)
Medium thickness dark grey to black clay loam to clay grading to well-structured dark grey clay with minor carbonates and a water table within 100 cm.

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

