

EDW Edward Land System

Area:	15.9 km ²
Landscape:	Undulating low hills surrounding old crater lakes, Edward and Leake
Annual rainfall:	765 – 805 mm average
Geology:	Pleistocene basic volcanic sediments and ejecta intrude and overlie Pleistocene Bridgwater calcarenite beach ridge deposits and Padthaway Formation lagoonal calcareous clays.
Main soils:	<p>O1 (21%) Volcanic soil (Andic Tenosol)</p> <p>I1 (14%) Deep Sand (Arenic Podosol)</p> <p>G3 (12%) Thick sand over clay (sandy Brown-Red Chromosol-Sodosol)</p> <p>G2 (11%) Bleached sand over sandy clay (sandy Brown-Red Chromosol-Sodosol)</p> <p>I2 (11%) Wet highly leached sand (Aquic or Semi-Aquic Podosol)</p>
Minor soils:	<p>L1 (8%) Shallow soil on rock (basalt) (rocky Rudosol-Tenosol)</p> <p>WW (6%) Water</p> <p>C3 (5%) Friable gradational clay loam (Calcic-Hypercalcic Red Dermosol-Calcarosol)</p>
Summary:	Soils are mostly deep, well drained and fertile. Wind erosion and waterlogging are problems on some susceptible soils.

Soil Landscape Unit summary: Edward Land System (EDW)

SLU	% of area	Component	Main soils	Prop#	Notes
OFD	3.9	Low dune	I1I2	D	<p>OFD Deep moderately to highly leached siliceous sands on low dunes, with 10% shallow loamy sand, often over red-brown sandy clay loam/clay on calcreted calcarenite on flats.</p> <p>OFDv As above, with volcanic ash in surface</p> <p>OFG 60-90% low dunes as above with 10-30% flats with thin sand over yellow-brown clay often on calcrete.</p> <p>Main soils: <u>Highly leached sand - I1</u>, <u>Wet highly leached sand - I2</u>.</p>
OFDv	0.9	Low dune	I1I2	D	
OFG	6.6	Dune	I1I2	D	
OPcv	13.1	Dune	I1G3	D	<p>Dunes with deep bleached sand, often over poorly structured clay, particularly in swales. 10% swamps. Volcanic ash in surface horizons.</p> <p>Main soils:</p> <p>Dunes: <u>Highly leached sand - I1</u>, <u>Thick sand over clay - G3</u>.</p> <p>Swamps: <u>Peaty soil - N1</u> and <u>Wet clay loam - N3</u>.</p>
		Swamp	N1N3	M	
PPBv	16.2	Plain	H3I2 G3	V	<p>Sand plain with deep bleached siliceous sands often poorly drained with yellow-brown clay or coffee rock subsoil. 10-20% low rises with well-drained deep sands as well as the above. Volcanic ash in surface.</p> <p>Main soils:</p> <p>Plains: <u>Bleached siliceous sand - H3</u>, <u>Wet highly leached sand - I2</u> and <u>Thick sand over clay - G3</u>.</p> <p>Rises: <u>Highly leached sand - I1</u>, <u>Wet highly leached sand - I2</u> and <u>Thick sand over clay - G3</u>.</p>
		Rise	I1I2 G3	L	
PWB	5.2	Rise	G3I2	D	<p>Gently sloping rises with poorly drained, ironstone gravelly bleached sand over brown clay and poorly drained deep siliceous sands with coffee rock or clay subsoils. 10% swamps.</p>
		Swamp	N1N3	M	



					Main soils: Rises: <u>Thick sand over clay - G3</u> , <u>Wet highly leached sand - I2</u> . Swamps: <u>Peaty soil - N1</u> and <u>Wet clay loam - N3</u> .
vAa	3.8	Plain	O1N3 N1	V	vAa Plain with brown or black volcanic loam over dark brown clay on basalt or ash. 20-30% swamps. vAb As above, gently undulating.
		Swamp	N1N3	C	
vAb	0.8	Plain	O1N3 N1	V	Main soils: Plains: <u>Volcanic ash soil - O1</u> , <u>Wet clay loam - N3</u> and <u>Peaty soil - N1</u> . Swamps: <u>Peaty soil - N1</u> and <u>Wet clay loam - N3</u> .
		Swamp	N1N3	C	
vDD	8.3	Rise	G2O1	D	Rolling rise with deep loamy sand over red/yellow clay and dark organic loam over brown clay in low parts of the landscape. Main soils: <u>Bleached sand over sandy clay loam - G2</u> and <u>Volcanic ash soil - O1</u> .
vLB	10.6	Rise	O1I1	D	Gently sloping rises with deep dark volcanic loam overlying deep siliceous sand. 10-30% shallow sandy loam over red clay on calcreted calcarenite. Main soils: <u>Volcanic ash soil - O1</u> and <u>Highly leached sand - I1</u> .
vQC	24.0	Rise	O1L1	D	Deep, dark, sandy loam over red clay developed in older, Pleistocene volcanic ash with occasional sandy rise or shallow loam on calcrete; shallow soils on basalt are co-dominant. Main soils: <u>Volcanic ash soil - O1</u> , <u>Shallow stony soils on rock - L1</u>
XI-	6.1	Lake	WW	D	Crater lakes.
XxC	0.4	Swamp	N1N3	D	Peat swamps. Main soils: <u>Peaty soil - N1</u> and <u>Wet clay loam - N3</u> .

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:

- G2** Bleached sand over sandy clay loam (sandy Brown-Red Chromosol)
Sandy texture contrast soil with a bleached A2 and a friable brown-red sandy clay loam to sandy loam subsoil.
- 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.
- H3** Deep bleached sand (Basic, Arenic, Bleached-Orthic Tenosol)
Grey sand over a very thick bleached sand grading to yellow sand continuing below 100 cm.
- I1** 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.
- I2** 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.
- L1** Shallow stony loam (Paralithic, Leptic Tenosol)
Shallow stony loam, often calcareous throughout or with depth, overlying weathering rock shallower than 50 cm.



N1 Peat (Organosol)
Peaty soil

N3 Seasonally waterlogged, non to marginally saline equivalents of soils listed above, viz.:
N3c Wet **G3**
N3d Wet **B5**
N3e Wet **B7**

O1 Volcanic ash soil (Mostly Podosols and Tenosols)
Deep volcanic ash soils and soils overlain with volcanic ash.

WW Water

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

