

KIG Kingscote Land System

Rises, low hills, and a hill, covering the highland area of the Mount Marsden 'peninsula' to the east of Emu Bay and the raised land of the Kingscote 'peninsula' around Kingscote. Included in this system are old beach ridge areas. The Kingscote 'peninsula' is bordered by the sea to the north-east, east, and south-east; by low-lying plains to the south and north-west; and by rises with extensive areas of cracking clay soils to the west. While the Mount Marsden 'peninsula' is bordered by the sea to the north; and by mostly low-lying plains to the south-east and south-west.

Area: 45.1 km²

Annual rainfall: 485 – 590 mm average

Geology: The oldest bedrock exposed in this system is in the gullies and coastal cliffs around Mount Marsden, and includes early Cambrian age sandstone, conglomerate and shale (Boxing Bay Formation, White Point Conglomerate and Emu Bay Shale).

Younger bedrock has surface or near surface exposure on the low hills just to the north of Kingscote where Jurassic age basalt (Wisanger Basalt) overlies older highly weathered sandstone material, or limestone in places. The basalt capping is the remnant of lava flows which occurred around 150 million years ago when the Antarctic continent was beginning to break away from Australia.

Eocene-Oligocene age limestone (Kingscote Limestone) can be seen in the coastal cliffs beside Kingscote, which was deposited as marine sediments around 50 million years ago.

The main sediments around the Kingscote 'peninsula' are unconsolidated clayey sediments, some derived from basalt, giving rise to cracking clay soils (Pooraka Formation), while the rest is colluvium, derived from Permo-Carboniferous age glacially derived sediments (Cape Jervis Formation) from around 280 million years ago.

Overlying these older sediments in places is Pleistocene age, wind-deposited marine floor derived material, in the form of calcarenite, which is remnant core of old shell sand dunes (Bridgewater Formation).

Many soils have been influenced by accessions of fine carbonate material, which has accumulated in lower subsoils and subsoils. In many cases this accumulation of carbonate has developed a layer of hard carbonate rubble or calcrete, especially on the Mount Marsden 'peninsula'.

Recent deposits of shelly sand (Semaphore Sand member of St. Kilda Formation), occur as coastal sandhills, sand spreads up coastal cliffs, and hummocky deposits on clifftops, along the north coast of the Mount Marsden 'peninsula'.

Topography: The Kingscote 'peninsula'. Undulating rises, and rolling rises and low hills. The undulating rise areas have summit surfaces of gently undulating plains, and are separated by almost linear drainage depressions and saline creeks. An old beach ridge runs parallel to the north coast of this area. And the low hill just north of Kingscote is flat-topped. A small sand flat is situated at Reeves Point. Coastal cliffs occur.

The Mount Marsden 'peninsula'. Rolling hills and low hills, and undulating low hills and rises. The hill and slopes of Mount Marsden dominate this area. A low hill is situated in the very north-east of this area. While two beach ridges run parallel to the coast and to each other. Coastal cliffs and steep sided gullies occur. Deposits of shell sand occur as coastal dunes, sand spreads up cliffs, or as deposits on clifftops.

Elevation: On the Kingscote 'peninsula' elevation varies from sea-level to just over 60 m. On the Mount Marsden 'peninsula' elevation varies from sea-level to just over 180 m on Mount Marsden.



Relief: From 10 m, to just over 100 m on the north side of Mount Marsden. Typical relief for the Kingscote 'peninsula' is from 10 to 20 m; while for the Mount Marsden 'peninsula' it is typically from 40 to 50 m.

Main Soils:

F2-F1-D7-G3	<u>Loamy topsoil over sodic clay</u>
B6	<u>Loamy topsoil over red light clay on calcrete</u>
B3-B2	<u>Shallow loamy soil on calcrete</u>
A4	<u>Loamy to clay loamy calcareous soil</u>

Minor soils:

E2-E3-E1-A6	<u>Cracking clays</u>
C2	<u>Red soil on basalt</u>
L1-D7	<u>Shallow rocky soils</u>
H1-B1	<u>Shell sand</u>

Main Features: The numerous slopes give rise to potential water erosion problems; while relatively impermeable sodic clay subsoils limit infiltration and increase runoff. Significant areas of non-arable shallow soils occur. Calcrete layers, hard carbonate fragments, and sandstone fragments limit soil waterholding capacity. The limited areas of cracking clay soils are fertile but difficult to manage due to their heavy surface textures. Soils which are calcareous throughout can have induced trace element deficiencies. Raised subsoil salinity levels, especially on lower slopes, occur in some subsoils.

Soil Landscape Unit summary: Kingscote Land System (KIG)

SLU	% of area	Main features #
AAB	0.2	Non-arable rocky slopes formed on basalt. Main soils: <u>red soil on basalt</u> - shallow to moderate depth soils, with light clay loam to clay over well structured red clay, often with basalt fragments, overlying clay or clay loam with a build up of secondary carbonate (often including hard carbonate fragments), on basalt. Some shallow soils have no soft or hard carbonate and directly overlie basalt. C2 (<i>Red Dermosol-Ferrosol</i>). AAB – rocky slopes (10-20%, 5e)
AKC AKD AKF AKI AKJ	0.7 0.3 0.6 1.0 0.3	Non-arable slopes and gully slopes, mostly formed on sandstone. Main soils: <u>shallow rocky soils</u> - stony loamy soil over weathered rock or rock, some soils with clay subsoil; soils often with subsoil fine carbonate and hard carbonate fragments L1-D7 (<i>rocky Tenosol-Rudosol-Chromosol</i>). With some <u>loamy topsoil over red light clay on calcrete</u> and <u>shallow loamy soil on calcrete</u> - soil on calcrete or rubbly calcrete: B6-D7 and B3-B2 (<i>Lithocalcic-Petrocalcic Red Chromosol-Sodosol</i> and <i>Petrocalcic Tenosol-Calcarosol</i>). AKC – slopes (18-30%, 5e, 2g) AKD – slopes (30-60%, 6e, 3g) AKF – gully slopes (>100%, 7e) AKI – slopes and gully slopes (18-30%, 5e) with gullying (4g) AKJ – gully slopes (30-100%, 6e)
DKD	5.3	Semi-arable slopes with texture contrast soils formed on sandstone and calcareous soils. Main soils: <u>loamy topsoil over sodic clay</u> - loamy topsoil over red, orange or brown sodic clay, usually with sandstone fragments and hard carbonate fragments; subsoil with fine carbonate, sometimes calcareous throughout D7 (<i>Red-Brown Sodosol</i>). And <u>loamy to clay loamy calcareous soil</u> - calcareous loams over highly calcareous clay loam or light clay, with hard carbonate fragments and some sandstone fragments A4 (<i>Hypercalcic-Lithocalcic Calcarosol</i>). With approximately 10% <u>loamy topsoil over red clay on calcrete</u> with <u>shallow loamy soils on calcrete</u> - shallow soils on calcrete: B6 , B3 with B2 (<i>Petrocalcic Sodosol-Tenosol</i> with <i>Petrocalcic Calcarosol</i>). DKD – semi-arable slopes (10-20%, 4e)
EIC EID EIZ	1.4 2.1 2.8	Arable to semi-arable slopes and summit surfaces formed on sandstone, with calcareous soils and some texture contrast soils. Main soils: <u>loamy to clay loamy calcareous soil</u> and <u>shallow loamy soil on calcrete</u> -



		calcareous loamy soil over grey or orange light clay or clay loam with hard carbonate fragments and some sandstone fragments; some soils with a calcrete layer: A4 and B2 (<i>Supracalcic-Lithocalcic Calcarosol</i> and <i>Petrocalcic Calcarosol</i>). And <u>loamy topsoil over sodic clay</u> - loamy topsoil over red or orange clay with sandstone fragments and some hard carbonate rubble; with a calcareous subsoil and often calcareous throughout; calcrete layers can occur D7 (<i>Brown-Red Sodosol-Chromosol</i>). EIC – slopes (3-10%, 3e) EID – semi-arable slopes (10-20%, 4e) EIZ – summit surface (2-1e)
EkZ	0.8	Mostly arable summit surface formed on basalt. Main soils: <u>red soil on basalt</u> - clay loam over red blocky clay with hard carbonate fragments, on basalt C2 (<i>Lithocalcic Red Dermosol-Ferrosol</i>). Some of these soils are calcareous throughout (<20% A2); while some have a calcrete layer above the basalt rock. Basalt and calcrete fragments occur on the surface. EkZ – summit surface
EUC EUD	0.7 2.0	Semi-arable slopes formed on basalt with some outwash sediments. Main soils: <u>red soil on basalt</u> - clay loam, over red usually sodic clay, which is often cracking clay, usually with some basalt fragments, with fine carbonate in the subsoil or lower subsoil, sometimes also with hard carbonate fragments: formed on basalt or sometimes on highly weathered material. Including minor areas of shallow rocky red clay loam over red clay on basalt. C2 (<i>Hypercalcic Red Dermosol-Ferrosol</i>). With sloping depressions and slopes of outwash, where deeper sediments have accumulated, giving calcareous <u>cracking clay</u> soils with some basalt fragments: E3-E2-E1 (<i>Brown-Red-Grey-Black Vertosol-Calcarosol</i>). Minor areas of - <u>loamy to clay loamy calcareous soil</u> - grey and red calcareous clay loamy soils occur, overlying highly weathered material A4 (<i>Hypercalcic-Lithocalcic Calcarosol</i>). EUC – slopes (3-10%, 3e) EUD – slopes (10-30%, 4-5e)
HAE	1.4	Arable depression area with red sodic soils and cracking calcareous soils. Main soils: <u>loamy topsoil over sodic clay</u> - loamy to clay loamy topsoil over red clay over clay with fine carbonate and often some hard carbonate fragments, on slight slopes F2-F1 (<i>Hypercalcic-Lithocalcic Red Sodosol-Chromosol</i>). Also there are >20% calcareous <u>cracking clay</u> soils with clay loam to clay overlying a clayey subsoil, on slight slopes and low-lying drainage flats E2-E3 (<i>Red-Brown Vertosol-Calcarosol</i>). Minor areas of shallow soil over calcrete can occur. HAE – depression area with slight slopes and drainage flats (0-2%, 1e)
HOA HOB HOL HOO	2.1 2.6 4.0 0.6	Arable slopes and plains with sodic soils and calcareous soils. Main soils: <u>loamy topsoil over sodic clay</u> - sandy loam over usually sodic clay, which can be calcareous throughout F2-F1 (<i>Brown-Grey Sodosol-Chromosol</i>). With <u>loamy to clay loamy calcareous soil</u> - loamy to clay loamy calcareous soils, usually with some hard carbonate fragments A4 (<i>Supracalcic-Lithocalcic Calcarosol</i>). With some patches of <u>shallow loamy soil on calcrete</u> B2-B3 (<i>Petrocalcic Calcarosol-Tenosol</i>). HOA – raised plain HOB – slopes (2-4%, 2-3e) HOL – slopes (2-4%, 2-3e) with <10% saline seepage (2-3s) HOO – depression with <10% saline seepage (2-3s)
HZA HQB HQC HZE HZO	8.6 1.8 8.4 1.2 0.5	Arable slopes with mostly brown, and some red, sodic soils. Main soils: <u>loamy topsoil over sodic clay</u> - mostly sandy loam topsoil over brown or sometimes red sodic clay, with fine carbonate in the lower subsoil, which occasionally includes hard carbonate fragments. Some of these soils are calcareous throughout; some subsoils are composed of cracking clay; and some surface soils have textures of fine sandy clay loam or even loamy sand F1-F2 (<i>Brown-Red Sodosol</i>). Only minor areas with <u>shallow loamy soil on calcrete</u> occur B2-B3 (<i>Petrocalcic Calcarosol-Tenosol</i>); while minor areas of <u>cracking clay</u> soils can occur E3 (<i>Brown Vertosol-Calcarosol</i>). HZA – raised plain (1-2e) HQB – slopes (1-4%, 2-3e) HQC – slopes (3-8%, 3-2e) HZE – depression area HZO – depression with <10% saline seepage (2-3s)
JRL JRM	1.8 4.1	Arable outwash sediments on slopes with sodic soils and some calcareous soils - lower slopes of Mt. Marsden. Main soils: <u>loamy topsoil over sodic clay</u> - loamy topsoil, often with a bleached layer of light



		sandy loam or loamy sand, over olive sodic clay, with fine carbonate in the subsoil or lower subsoil F2-F1-D7 (<i>Brown Sodosol</i>). With <u>loamy to clay loamy calcareous soil</u> - calcareous loams over grey clay loam or light clay, with some to minor hard carbonate fragments and minor sandstone fragments A4 (<i>Hypercalcic-Lithocalcic Calcarosol</i>). Approximately 10-20% of soils in this area is formed on weathering sandstone. JRL – lower slopes (1-3.5%, 2e) with <10% saline seepage (2-3s) JRM – lower slopes (3-10%, 3e) with <10% saline seepage (2-3s)
KRB	0.3	Arable outwash sediments on slopes with cracking clay soils and other calcareous soils. Main soils: <u>cracking clay</u> soils which are calcareous throughout. Also some calcareous soils with clay loam topsoils overlying cracking clay: E3-E2 with A6 (<i>Brown-Red Vertosol-Calcarosol</i>). KRB – slopes (2-5%, 2-3e)
KWE	0.2	Semi-arable outwash sediments in depression area with gilgai features (approx. 20% small depressions, the rest flats and small mounds), with cracking clay soils and sodic soils. Main soils: <u>cracking clay</u> soils, often calcareous throughout on mounds and flats; however soils in gilgai depressions are non calcareous throughout E3 (<i>Grey Vertosol</i>). With <u>loamy topsoil over sodic clay</u> ; the subsoil is a cracking clay F2 (<i>Brown Sodosol</i>). KWE – depression with gilgai features of flats, small mounds and small depressions
MdF	0.7	Non-arable steep slopes of old beach ridge, with mostly calcareous soils on calcreted calcarenite. Main soils: <u>shallow loamy soil on calcrete</u> - shallow and rubbly sandy loam soils over calcrete, often calcareous throughout B2-B3 (<i>Petrocalcic Calcarosol-Tenosol</i>). With some patches of <u>shell sand</u> soil on calcrete B1 (<i>Petrocalcic Shelly Calcarosol</i>). MdF – steep slopes (30-100%, 6e)
MgB MgC MgD MgF	0.8 1.1 5.6 0.1	Mostly non-arable old beach ridge and remnants of such, with shallow calcareous and non-calcareous soils on calcreted calcarenite. Main soils: <u>shallow loamy soil on calcrete</u> - rubbly sandy loam soils over calcrete, often calcareous throughout B2-B3 (<i>Petrocalcic Calcarosol-Tenosol</i>). Some patches occur of - <u>loamy topsoil over red light clay on calcrete</u> - sandy loam over red clay loam to light clay, often over rubbly and highly calcareous sandy loam, on calcrete at very shallow to moderate depth B6 (<i>Petrocalcic Red Chromosol-Sodosol</i>). Minor areas of sand deposition occur with calcareous siliceous sands (H2). MgB – slopes of remnant old beach ridge areas (1-4%, 2e) MgC – slopes of remnant old beach ridge areas (2-8%, 3e) MgD – slopes of old beach ridge (6-20%, 4-3e) MgF – steep slopes (30-100%, 6e)
MpB MpC MpD	2.3 4.9 5.0	Mostly non-arable old beach ridges, with mostly shallow non-calcareous soil on calcreted calcarenite. Main soils: <u>loamy topsoil over red light clay on calcrete</u> - sandy loam over red clay loam to light clay, often over rubbly and highly calcareous sandy loam, on calcrete at shallow depth B6 (<i>Petrocalcic Red Chromosol-Sodosol</i>). And <u>shallow loamy soil on calcrete</u> - rubbly sandy loam soils over calcrete, occasionally calcareous throughout B3-B2 (<i>Petrocalcic Tenosol-Calcarosol</i>). MpB – slopes of old beach ridge (1-4%, 2e) MpC – slopes of old beach ridge (2-8%, 3e) MpD – slopes of old beach ridge (6-30%, 4-5e)
MqC MqE	0.9 1.1	Semi-arable remnant old beach ridge material, with mostly shallow non-calcareous soil on calcreted calcarenite, with some deeper soils. Main soils: <u>loamy topsoil over red light clay on calcrete</u> - sandy loam over red clay loam to light clay, often over rubbly and highly calcareous sandy loam, on calcrete or dense unconsolidated limey material, at shallow to moderate depth B6-D3 (<i>Petrocalcic Red Chromosol-Sodosol</i>). And <u>shallow loamy soil on calcrete</u> - rubbly sandy loam soils over calcrete, occasionally calcareous throughout B3-B2 (<i>Petrocalcic Tenosol-Calcarosol</i>). MqC – low ridge of remnant old beach ridge material (3-10%, 3e) MqE – depression area with some low rises (1-3.5%, 2-1e)
PaB	0.4	Semi-arable slopes with sandy soil over brown sodic light clay; underlain by calcrete. Main soils: <u>loamy topsoil over sodic clay</u> - thick loamy sand to sand over brown sodic light clay G3-B7 (<i>Brown Sodosol</i>). Patches of shallow soil over calcrete occur (B3). PaB – slopes (2-4%, 2e)
QhA	1.8	Semi-arable plains and slopes with mostly shallow soils over calcrete.



QhB QhC QhD	0.7 0.2 3.0	<p>Main soils: <u>shallow loamy soil on calcrete</u> and <u>loamy to clay loamy calcareous soil</u> - rubbly grey-brown loamy soil, usually calcareous, on calcrete or calcrete rubble: B2-B3 and A4 (<i>Petrocalcic Calcarosol-Tenosol</i> and <i>Lithocalcic Calcarosol</i>). Shallow <u>loamy soil over red light clay on calcrete</u> B6 (<i>Petrocalcic Red-Brown Chromosol-Sodosol</i>). With <u>loamy topsoil over sodic clay</u> - loamy topsoil over red to brown sodic clay, with fine carbonate in lower subsoil or subsoil, with hard carbonate fragments and possibly some sandstone fragments; some of these soils are calcareous throughout F2-F1 (<i>Hypercalcic-Lithocalcic Red-Brown Sodosol</i>). And with <u>loamy to clay loamy calcareous soil</u> - calcareous loamy soils with highly calcareous subsoil and hard carbonate fragments A4 (<i>Supracalcic-Lithocalcic Calcarosol</i>).</p> <p>QhA - raised plain QhB - slopes (2-4%, 2e) QhC - slopes (2-8%, 3-2e) QhD - semi-arable slopes (10-20%, 4e)</p>
RMB RMC RME RMO	3.5 1.7 1.4 1.1	<p>Semi-arable slopes, depressions and summit surfaces with mostly shallow soils over calcrete. Main soils: <u>loamy topsoil over red light clay on calcrete</u> - loamy with some sandy topsoil over red or brown light clay, which can be sodic, with fine carbonate and hard carbonate fragments and calcrete at shallow depth; these can be calcareous throughout B6 (<i>Petrocalcic Red-Brown Chromosol-Sodosol</i>). With <u>shallow loamy soil on calcrete</u> - rubbly loamy, with some sandy soil, over calcrete, sometimes calcareous throughout B3-B2 (<i>Petrocalcic Tenosol-Calcarosol</i>). And with <u>loamy topsoil over sodic clay</u> - loamy topsoil over red or brown clay to light clay, which can be sodic, with fine carbonate and hard carbonate fragments, above calcrete or a layer of unconsolidated limey material at moderate or even shallow depth F2-F1-B6 (<i>Red-Brown Chromosol-Sodosol</i>). Minor very thick sandy deposits on sodic clay, in depressions. Minor areas of texture contrast soil formed on weathering rock.</p> <p>RMB - slopes, with depressions and sloping depressions (1-3.5%, 2-1e) RMC - slopes (3-10%, 3e) RME - depression (2-1e) RMO - depression and slight slopes (1-2e) with <10% saline seepage (2-3s)</p>
WAB	1.0	<p>Non-arable coastal cliffs and steep slopes: mostly made up of unconsolidated material. Main soils: <u>shell sand</u> H1 (<i>Shelly Rudosol</i>) with some calcarenite exposures (RR), overlying rock.</p> <p>WAB - shell sand spread on coastal cliffs and some steep slopes.</p>
WBA WBB	0.3 2.6	<p>Non-arable coastal cliffs and steep slopes: mostly made up of consolidated material.</p> <p>WBA - coastal cliffs, steep slopes, benches and beaches. Cliffs, steep slopes and benches are composed of calcrete capped limestone (some patches of limestone cemented basalt conglomerate occur near cliff tops). A short and narrow beach of calcareous siliceous sand with shell fragments occurs at the southern end of this unit. (some areas of sand have been covered by a thin to medium thickness covering of clay, washed down from adjacent higher ground). Cliffs and steep slopes are about 10m high.</p> <p>WBB - rocky coastal cliffs with some steep slope areas. Basalt overlying limestone or highly weathered sandstone material in the cliffs near Kingscote (cliffs from 10 to 60m high). Sandstone, conglomerate and shale in rocky cliffs and reefs to the east of Emu Bay, around White Point, North Cape and Point Marsden (cliffs from 20 to 100m high).</p>
WEE WER	0.1 0.1	<p>Non-arable coastal sand spread</p> <p>Main soils: calcareous siliceous sand H2 (deep sandy <i>Calcarosol-Rudosol</i>)</p> <p>WEE - sand spread on slight slope (1-3%), underlain by calcrete. WER - saline back swamp or depression (5s, 5w), underlain by unconsolidated limey material.</p>
WGC WGD	0.5 1.3	<p>Non-arable coastal shelly dunes: recent deposits.</p> <p>Main soils: white <u>shell sand</u> H1 (<i>Shelly Rudosol</i>), with some older and more developed grey shelly deposits, some overlying calcrete, on the back slope of the coastal dune ridge H1-B1 (<i>Shelly Calcarosol</i>).</p> <p>WGC - coastal dunes (<5m high) on summit surface/cliff-top. WGD - coastal dunes (5-15m high)</p>
WIQ	0.1	<p>Semi-arable sandy coastal flat.</p> <p>Main soils: deep siliceous sand H2 (deep sandy <i>Basic Tenosol</i>)</p> <p>WIQ - sandy flat with little apparent salinity (1-3s)</p>
ZA-	1.7	<p>Non-arable saline stream beds; with >50% saline seepage (5s).</p> <p>Main soils: <u>loamy topsoil over sodic clay</u> - sandy loam to light sandy clay loam over brown sodic clay or light clay, with fine carbonate in the lower subsoil. Sometimes soils are calcareous throughout. F2-F1 (<i>Brown Sodosol</i>)</p>



Classes in the 'Soil Landscape Unit summary' table (eg. 2-1e, 3w, 2y, etc) describe the predominant soil and land conditions, and their range, found in Soil Landscape Units. The number '1' reflects minimal limitation, while increasing numbers reflect increasing limitation. Letters correspond to the type of attribute:

a - wind erosion e - water erosion f - flooding g - gullyng
r - surface rockiness s - salinity w - waterlogging y - exposure

Detailed soil profile descriptions:

Main Soils:

F2-F1-D7-G3 Loamy topsoil over sodic clay (*Brown-Red-Grey Sodosol-Chromosol*)

Medium thickness to thick sandy loam, sometimes loamy sand or fine sandy clay loam, often with a bleached layer, over olive-brown to red, usually sodic clay, usually with abundant fine carbonate in the lower subsoil, often with some hard carbonate fragments, and sometimes calcareous throughout. Often formed on weathering sandstone and with sandstone fragments on the Mt.Marsden 'peninsula'. Subsoil can be cracking clay on the Kingscote 'peninsula'. Crests, slopes, depressions and drainage depressions.

B6 Loamy topsoil over red light clay on calcrete (*Petrocalcic Red Chromosol-Sodosol*)

Medium thickness loamy sand to loam over red clay loam, light clay, or sometimes clay, on calcrete at very shallow to moderate depth. The subsoil can be sodic. And the soil usually contains hard carbonate rubble. Usually lower subsoil has an accumulation of fine carbonate; sometimes soils are calcareous throughout. Old beach ridges, plus other slopes, plains and depressions. Especially common on the Mount Marsden 'peninsula'.

B3-B2 Shallow loamy soil on calcrete (*Petrocalcic Tenosol-Calcarosol*)

Shallow to very shallow loamy, or sometimes sandy soil, on calcrete. Soils usually contain hard carbonate rubble and can be calcareous throughout. Old beach ridges, plus some other plains and slopes.

A4 Loamy to clay loamy calcareous soil (*Hypercalcic-Lithocalcic Calcarosol*)

Loamy to clay loamy soils which are calcareous throughout and often contain hard carbonate fragments. Slopes.

Minor soils:

E2-E3-E1-A6 Cracking clays (*Vertosol-Dermosol-Calcarosol*)

Medium thickness structured clay loam to clay over red, brown, grey or black cracking clay. There is an accumulation of fine carbonate in the lower subsoil; often soils are calcareous throughout. Some soils contain basalt fragments. Depression with gilgai landscape features, and other slopes especially sloping depressions. Only found on the Kingscote 'peninsula'; and derived from weathered basalt.

C2 Red soil on basalt (*Red Dermosol-Ferrosol*)

Shallow to moderate depth soil, with thin to medium thickness clay loam over well-structured red clay with basalt fragments. Sometimes this soil directly overlies basalt bedrock, but often there is an accumulation of soft and hard carbonate above the rock. Hillcrests and slopes. Only found on the Kingscote 'peninsula'.

L1-D7 Shallow rocky soils (*rocky Tenosol-Rudosol-Chromosol*)

Shallow rocky loamy soils, some texture contrast, on rock or weathering rock (mostly sandstone). Soft and hard carbonate can occur in these soils. Steep slopes of Mount Marsden.

H1-B1 Shell sand (*Shelly Rudosol-Calcarosol*)

Sandy soil dominated by fine carbonate/shell fragments. Occasionally underlain by calcrete. Coastal dunes and sand spreads.

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

