

MTA Mount Taylor Land System

A relatively low level highly dissected plateau area with lagoons and many sandy deposits. This land system forms part of the lower level southern section of the Kangaroo Island Plateau. The land system is bordered to the east by a similar elevation dissected plateau generally with less sandy topsoils; to the north by higher elevation plateau areas; to the west by sandy and often calcreted coastal deposits; and to the south by calcreted old coastal deposits and drainage flats. It is named after Mount Taylor, an isolated calcarenite peak situated in the northeast part of this land system.

Area: 181.9 km²

Annual rainfall: 595 – 710 mm average

Geology: This area is dominated by Pliocene-Quaternary age colluvium: consisting of mottled yellow-brown clays, very often capped with ironstone gravel, overlain by loamy or sandy topsoils, and forming low elevation plateau surfaces and slopes. Underlying these clays are early Cambrian age Kanmantoo Group meta-sandstones, with patches of other rock including granite and phyllite, which have near surface expression in many creek gullies and on some slopes and plateau surfaces. Isolated calcreted areas with shallow soils are remnants of Pleistocene age coastal dune deposits. Extensive areas of sand occur, which are likely to be derived from old coastal dune deposits, and are often underlain by cemented ironstone gravel (ferricrete), capping a clayey substrate. This sand been washed into the headwater areas of many drainage depressions forming thick deposits. Drainage flats typically have brown clays overlain by loamy topsoil. The numerous lagoons have grey-green clayey sediments, often overlain by sand, and are sometimes calcareous. Lagoon surrounds have sandy deposits derived from lagoon surfaces, sometimes including low lunettes.

Topography: A dissected plateau with moderate level plateau surfaces. These plateau surfaces are separated by slopes and intervening creek lines. Drainage is from north to south via many creeks, including: the middle South West River; the lower North West, lower North East and Stun'sail-Boom rivers; and the middle Harriet River and middle Two Wheel Creek; all of which flow into the sea. Many lagoons and headwater swamp areas occur. There is a large depression area with numerous lagoons and headwater swamps just west of the Harriet River between Mount Stockdale and the South Coast Road. Slopes range from 0 to 30% in some creek gullies; typically slopes range from 0 to 8%.

Elevation: The highest point is the tip of Mount Taylor at 140 m. Otherwise elevations range from about 130m in the very northeast of the system to near sea level at the mouth of the Stun'sail-Boom River. Typically elevations range from 30m in the south to 100 m in the north.

Relief: Typically from 0 to 20 m

Main soils:

J2	<u>Ironstone soil.</u>
J3	<u>Shallow soil on ferricrete.</u>
G4-G3-F2-F1	<u>Sand or loam over clay.</u>
K4-K2	<u>Loam or sand over brown clay on weathered rock.</u>

Minor soils:

I2	<u>Highly leached sand.</u>
H3-I1	<u>Bleached siliceous sand.</u>
B3-B2-B1-B7	<u>Shallow soil on calcrete.</u>
M1	<u>Deep sandy loam.</u>



Main features: Arable plateau surfaces and slopes with non-arable drainage lines, swamps and lagoons. Topsoils are sandy or loamy. The main soils are loams or sands over clay with or without ironstone gravel, and shallow sands and loams on ferricrete. Areas of stony soils occur, mostly on the slopes adjacent to drainage lines. Fertility is reduced by ironstone gravel and ferricrete due to the 'fixation' of phosphorus; and the sandy soils are infertile. Clayey subsoils are usually sodic and relatively impermeable, resulting in seasonal waterlogging in many soils over winter and spring. Acidic and strongly acidic conditions regularly occur in topsoils and subsoils. A few patches of saline seepage occur, mostly in drainage depressions.

Soil Landscape Unit summary: Mount Taylor Land System (MTA)

SLU	% of area	Main features #
CAA CAC CAD	0.1 0.2 0.05	<p>Slopes and elevated plains dominated by loamy and stony texture contrast soils formed on weathered rock.</p> <p>Main soils: mostly sandy loams or loams on clay or clay loamy subsoil on weathered rock, usually weathered meta-sandstone – <u>loam over brown clay on weathered rock</u> K4-K2 (<i>Brown Sodosol on weathered rock</i>). Possibly with some <u>shallow sandy loam on rock</u> L1 (<i>rocky Tenosol</i>).</p> <p>CAA – elevated plains (slopes 0-1%, 1e, 2-3w, 1s) CAC – slopes (slopes 3-10%, 3w, 3e, 1-2s) CAD – semi arable slopes (slopes 8-20%, 3w, 4-3e, 1-2s)</p> <p>Summary: the main limitations are seasonal waterlogging, water erosion risk on sloping land, stoniness or rockiness, and some shallow soils.</p>
CBA CBAw CBAs CBB CBC CBD	0.2 0.2 0.1 0.5 1.7 0.04	<p>Slopes and plains with mostly loamy texture contrast soils formed on weathered rock.</p> <p>Main soils: mostly sandy loams or loams on clay or clay loamy subsoil on weathered rock, usually weathered meta-sandstone – <u>loam over brown clay on weathered rock</u> K4-K2 (<i>Brown Sodosol on weathered rock</i>) and <u>ironstone soil</u> J2 (<i>Ferric Brown Sodosol-Chromosol</i>). Possibly with some sandy loam <u>shallow soil on ferricrete</u> J3 (<i>Petroferric Tenosol</i>) in the west.</p> <p>CBA – elevated plains (slopes 0-1%, 3w, 1s, 1e) CBAw – wetter plain (slopes 0-2%, 1e, 4-3w, 1s) CBAs – slightly saline low lying plain (slopes 0-1%, 1e, 2-1s, 4-3w) CBB – slopes (2.5%-4%, 2e, 3w, 1s) CBC – arable to semi arable slopes (2.5-12%, 3e, 2-1s, 3-4w) CBD – non arable to semi arable steeper slopes (10-30%, 4-5e, 3-4w, 2-1s)</p> <p>Summary: the main limitations are seasonal waterlogging, restricted fertility on areas with ironstone soils, water erosion risk on sloping land, and some stoniness.</p>
CCE	2.7	<p>Drainage depressions with mostly sandy loam texture contrast soils formed on weathered rock. Main soils: sandy loam, with some sandy, topsoil on sodic clay on weathered rock – <u>loam or sand over brown clay on weathered rock</u> K4 (<i>Brown Sodosol on weathered rock</i>) on creek slopes. With deeper texture contrast soils with sandy loam topsoils – <u>loam over clay</u> F1 (<i>Brown-Grey Sodosol</i>) in sluggishly drained side arms and upper reaches of drainage depressions, and along drainage lines. <u>Deep sandy loam</u> M1 (<i>loamy Tenosol</i>) can occur along drainage lines; as can <u>bleached siliceous sand</u> H3-I1 (<i>sandy Tenosol-Podosol</i>), especially in sluggishly drained upper reaches of drainage depressions.</p> <p>CCE – drainage depression: consisting of creek gully slopes, drainage lines, and sluggishly drained side arms and upper drainage depressions; often with minor patches of salinity, especially in sluggishly drained tributaries and upper reaches (slopes 2-20%, 5*g, 2-3°s, 5-4w, 4-3e)</p> <p>Summary: these drainage areas are wet and prone to flooding.</p>
CEC CEZ	0.9 0.2	<p>Slopes and plateau surfaces with mostly sandy loam texture contrast soils formed on weathered rock.</p> <p>Main soils: sandy loam topsoil on sodic clay on weathered rock – <u>loam over brown clay on weathered rock</u> K4 (<i>Brown Sodosol on weathered rock</i>). With some deeper texture contrast soils in lows with sandy loam topsoils – <u>loam over clay</u> F1 (<i>Brown Sodosol</i>); and often with some <u>ironstone soil</u> J2 (<i>Ferric Brown Sodosol-Chromosol</i>). Minor patches with calcrete fragments or even shallow soils on calcrete.</p> <p>CEC – slopes (slopes 1-5%, 3-2e, 3-4r, 1-2s, 2-3w) CEZ – plateau surfaces (slopes <1%, 1e, 2-3w, 1s)</p>



		Summary: the main limitations are seasonal waterlogging, water erosion risk on sloping land, and stoniness.
CFC CFD	0.8 0.2	<p>Slopes dominated by sandy texture contrast soils formed on weathered rock.</p> <p>Main soils: mostly sandy topsoil on sodic clay or clay loamy subsoil on weathered rock, usually weathered meta-sandstone – <u>sand over brown clay on weathered rock</u> K4 (<i>Brown Sodosol on weathered rock</i>). Land units near areas with boulder laterite may have some sandy <u>shallow soil on ferricrete</u> J3 (<i>Petroferric Tenosol</i>).</p> <p>CFC – slopes (2.5-8%, 4-3w, 3-2e, 1s) CFD – non arable to semi arable steeper slopes (10-30%, 4-5e, 4-3w, 1-2s)</p> <p>Summary: the main limitations are seasonal waterlogging, infertility due to the sandy nature of topsoils, water erosion risk on sloping land, and some stoniness.</p>
FVA	0.5	<p>Elevated plains and slopes with mostly sandy loam texture contrast soils with ironstone gravel.</p> <p>Main soils: <u>ironstone soil</u> with thick light sandy loam topsoils J2 (<i>Ferric Brown Sodosol</i>). With texture contrast soils, which can be stony, and have weathered rock at less than one metre K4 (<i>Brown Sodosol on weathered rock</i>). Also, possibly some areas with deeper texture contrast soils without ironstone gravel F1 (<i>Brown Sodosol</i>). Minor patches of shallow soil on calcrete can occur.</p> <p>FVA – elevated plains (slopes 0-1.5%, 3w, 1e, 1-2s)</p> <p>Summary: slightly elevated plateau areas, adjacent to coastal carbonate deposits: dominated by ironstone soils with moderate limitations in fertility and waterlogging.</p>
FUA FUAw FUB FUBw FUK	4.4 0.3 1.8 0.1 1.5	<p>Elevated plains, plains and slopes with mostly sandy loam or loam texture contrast soils with ironstone gravel.</p> <p>Main soils: <u>ironstone soil</u> J2 (<i>Ferric Brown Sodosol-Chromosol</i>) and <u>loam over clay</u> soils with mostly sandy loam topsoils F1 (<i>Brown Sodosol</i>). Some soils have weathered rock at less than one metre; these can include some small quartz fragments.</p> <p>FUA – elevated plains and slight slopes (slopes 0-2%, 1-2e, 3-4w, 1s) FUAw – wetter and slightly saline and wetter low lying plains (slopes 0-1.5%, 4w, 2-1s, 1e) FUB – slopes (2-6%, 2-3e, 1-2s, 3-4w) FUBw – wetter slopes (1-3.5%, 4w, 2e, 1s) FUK – low lying, slightly saline plains and slight slopes (slopes 0-2%, 4w, 2s, 1e)</p> <p>Summary: the main limitations are seasonal waterlogging and restricted fertility on areas with ironstone soil.</p>
FWA FWB FWBw FWC	0.1 2.1 0.2 0.3	<p>Elevated plains and slopes with mostly sandy loam or loam texture contrast soils with ironstone gravel.</p> <p>Main soils: <u>ironstone soil</u> J2 (<i>Ferric Brown Sodosol-Chromosol</i>) with some sandy loam <u>shallow soil on ferricrete</u> J3 (<i>Petroferric Tenosol</i>). With texture contrast soils, which can be stony, and which have weathered rock at less than one metre K4 (<i>Brown Sodosol on weathered rock</i>). Also, possibly some areas with deeper texture contrast soils without ironstone gravel F1 (<i>Brown Sodosol</i>).</p> <p>FWA – elevated plain (slopes 0-2.5%, 1-2e, 3w, 1s) FWB – slopes (slopes 2-5%, 2-3e, 3w, 1s) FWBw – wetter slopes (slopes 2-5%, 2-3e, 4w, 1s) FWC – slopes (slopes 2-5%, 3-2e, 3w, 1-2s)</p> <p>Summary: the main limitations are seasonal waterlogging, restricted fertility on areas with ironstone soil, some stoniness, and some shallow soils.</p>
FXA FXAw FXB FXZ	9.3 1.5 1.1 0.1	<p>Elevated plains, plateaux, slight slopes, and slopes, with mostly sandy loam to light sandy loam texture contrast soils with ironstone gravel.</p> <p>Main soils: <u>ironstone soil</u> J2 (<i>Ferric Brown Sodosol-Chromosol</i>) with some sandy loam <u>shallow soil on ferricrete</u> J3 (<i>Petroferric Tenosol</i>).</p> <p>FXA – elevated plains and slight slopes (slopes 0-2%, 1-2e, 3-4w, 1-2s) FXAw – wet plains and slight slopes (slopes 0-2%, 1-2e, 4w, 1-2s) FXB – slopes (slopes 2-5%, 2-3e, 1-2s, 3-4w) FXZ – remnant plateau surface (slopes <1%, 1e, 3-2w, 1s)</p> <p>Summary: the main limitations are seasonal waterlogging, restricted fertility on ironstone soils, some stoniness, and some shallow soils.</p>
FtA	7.8	Elevated plains, plains, slopes and depressions with mostly sandy soils with ferricrete or ironstone



FtAw FtB FtBw FtE FtZ	9.7 5.5 2.8 0.6 1.5	<p>gravel.</p> <p>Main soils: sandy <u>shallow soil on ferricrete</u> J3 (<i>Petroferric Tenosol</i>) and sandy <u>ironstone soil</u> J2 (<i>Ferric Brown Sodosol</i>). Some <u>sand over clay</u> G3 (<i>Brown Sodosol</i>) can occur, especially in the very wettest areas. And some patches of <u>bleached siliceous sand</u> H3-I1 (<i>sandy Tenosol-Podosol</i>).</p> <p>FtA – elevated plains and slight slopes (slopes 0-2%, 1e, 3-4w, 3a, 1s) FtAw – wetter low lying plains (slopes 0-3%, 1-2e, 4-5w, 3-2a, 1-2s) FtB – rises, including a few wetter flats and lower slopes, and slopes (slopes 1-10%, 2-3e, 3w, 3a, 1-2s) FtBw – wetter slopes (slopes 1.5-4%, 4w, 2e, 3-2a, 1-2s) FtE – wetter drainage areas: slightly raised edges of drainage area; or depressions on plateau surface (slopes 0-1%, 5w, 1s, 2a) FtZ – remnant plateau surface (slopes 0-1.5%, 1e, 2-3w, 3a, 1s)</p> <p>Summary: the main limitations are infertility due to the sandy nature of soils, seasonal waterlogging, restricted fertility on ironstone soils, stoniness, and shallow soils.</p>
FvA FvAw FvB FvK FvZ	9.9 1.7 0.8 0.7 0.7	<p>Elevated plains, plains and slopes with mostly light sandy loam or sandy loam soils with ferricrete or ironstone.</p> <p>Main soils: sandy loam <u>shallow soil on ferricrete</u> J3 (<i>Petroferric Tenosol</i>) and <u>ironstone soil</u> J2 (<i>Ferric Brown Sodosol-Chromosol</i>).</p> <p>FvA – elevated plains (slopes 0-1.5%, 1-2e, 3-4w, 1s) FvAw – poorly drained plains and slight slopes (slopes 0-2%, 1-2e, 4w, 1-2s) FvB – slopes (slopes 1-4%, 2-3e, 3-4w, 1s) FvK – low lying, slightly saline plain and slight slope (slopes 0-2%, 1-2e, 4w, 2s) FvZ – remnant plateau surfaces (slopes 0-2%, 3-2w, 1s, 1-2e)</p> <p>Summary: the main limitations are seasonal waterlogging, restricted fertility on ironstone soils, stoniness, and shallow soils.</p>
MdA MdB MdC	0.1 0.6 0.4	<p>Calcreted slopes and slight rises with shallow calcareous soils.</p> <p>Main soils: shallow depth calcareous (or sometimes shelly) sandy or light sandy loam soil on calcrete B2-B1 (<i>Petrocalcic Calcarosol</i>); possibly some soils are non calcareous B3 (<i>Petrocalcic Tenosol</i>). With minor patches of <u>sand over clay</u> in lows G3 (<i>Brown Sodosol</i>).</p> <p>MdA – very slight rises (slopes <1%, 2w, 2a, 1e, 6r) MdB – slopes (slopes 1-4%, 2e, 2a, 1s, 1w, 6r) MdC – slopes (slopes 3-7%, 3e, 2a, 1s, 1w, 6r)</p> <p>Summary: these areas are non-arable because of the shallow and rocky nature of soils.</p>
MiA MiYC	0.2 0.1	<p>Calcreted slight rises and old dunes with shallow, and some moderate depth soils.</p> <p>Main soils: shallow to moderate depth loamy sand to light sandy loam, sometimes with a sodic light clay subsoil, on calcrete B3-B7-G3 (<i>Petrocalcic Tenosol-Chromosol</i>).</p> <p>MiA – slight rises and low dune topography (slopes 0-1%, 2-1w, 2a, 1s, 4-5r) MiYC – old dune core topography (>15m high, 5a, 1w, 1e). Shallow, with some moderate depth, loamy sands on calcrete on old dune cores (<i>Petrocalcic Tenosol</i>); with thick to very thick sands on sodic clay in lows where calcrete has been 'dissolved' (<i>Brown Sodosol</i>). Includes Mount Taylor and Mount Stockdale.</p> <p>Summary: mostly shallow, stony and infertile soils.</p>
MmB	0.2	<p>Calcreted low rises with moderate to shallow depth soils.</p> <p>Main soils: loamy sands and light sandy loams, most likely with a bleached subsurface layer, and probably with highly calcareous subsoil, on calcrete at moderate to shallow depth B3 (<i>Petrocalcic Tenosol</i>). With some deeper soils of sand over sodic clay in lows G3 (<i>Brown Sodosol</i>).</p> <p>MmB – slopes (slopes 1-5%, 3-4a, 2-1e, 1s, 1w, 4-5r)</p> <p>Summary: soils are typically stony and infertile.</p>
OZD	0.4	<p>Sand deposits.</p> <p>Main soils: <u>bleached siliceous sand</u> usually with a clayey substrate at greater than one metre H3-I1 (<i>sandy Tenosol-Podosol</i>).</p> <p>OZD – low dunes and sand spreads (4-5a, 1-2w, 1-2s)</p> <p>Summary: infertile repellent sand deposits with a high wind erosion risk.</p>



PaA PaE PaO PaU	0.6 0.9 4.3 1.1	<p>Drainage depressions, low lying plains and lower slopes mostly with texture contrast soils.</p> <p>Main soils: <u>sand or loam over clay</u> G3-F1 (<i>Brown-Grey Sodosol</i>) with sandy or sandy loam topsoils.</p> <p>Some soils have weathered rock at less than one metre K4 (<i>Brown Sodosol on weathered rock</i>), especially on lower slopes. Minor to limited soils with ironstone or ferricrete (J2-J3). Deep sands can occur, especially along drainage lines, and can be podsolized in the more sluggishly drained upper reaches of drainage depressions: I2 and H3-I1 (<i>Podosol</i> and <i>sandy Tenosol-Podosol</i>).</p> <p>PaA – low lying plains and lower slopes (slopes 0-3%, 1-2e, 4w, 2-1s) PaE – drainage depressions (slopes 0-2%, 1-2e, 4w, 2-1s) PaO – slightly saline drainage depressions and lower slopes (slopes 0-8%, 3+s-3s, 7-5w, 3-4e, 5*g) PaU – marginally saline drainage depressions and some lower slopes (slopes 0-3%, 4*s, 7-5w, 3-2e, 5*g)</p> <p>Summary: typically wet and prone to flooding. Some patches of salinity occur, especially in drainage side-arms and along drainage lines.</p>
PhA PhAw PhB PhE PhO PhZ	0.3 3.2 0.5 0.4 0.6 0.2	<p>Mostly very thick sands on plains, slopes and plateau surfaces.</p> <p>Main soils: <u>sand over clay</u> and/or <u>bleached siliceous sand</u> on a clayey substrate: G3 and/or H3-I1 (<i>Brown Sodosol</i> and/or <i>sandy Tenosol-Podosol</i>). With sandy <u>ironstone soil</u> J2 (<i>Ferric Brown Sodosol</i>); and some areas of sandy <u>shallow soil on ferricrete</u> J3 (<i>Petroferric Tenosol</i>).</p> <p>PhA – plains and low lying plains (slopes 0-1%, 3-4w, 1s) PhAw – wetter plains (slopes 0-1%, 4-3w, 1-2s) PhB – slope (slopes 2-8%, 1-2s, 3-4w, 2e) PhE – slight depression (4-3w, 1-2s) PhO – slightly saline low lying plains (slopes <1%, 4-5w, 2-3s, 1e) PhZ – remnant plateau surface or slight depression on remnant plateau surface (slopes 0-1%, 3w, 1s)</p> <p>Summary: sandy infertile soils.</p>
PiB PiE PiEw PiL PiO	0.1 1.2 0.4 0.1 1.1	<p>Mostly wet very thick sands in drainage areas.</p> <p>Main soils: deep sands, often podsolized, on a clayey substrate: I2 or I1-H3 (<i>Podosol</i> or <i>sandy Podosol-Tenosol</i>) and/or <u>sand over clay</u> G3-N3 (<i>Brown Sodosol</i> or <i>Sodosolic Hydrosol</i>). With minor to limited areas of sandy <u>ironstone soil</u> J2 (<i>Ferric Brown Sodosol</i>) and/or sandy <u>shallow soil on ferricrete</u> J3 (<i>Petroferric Tenosol</i>).</p> <p>PiB – wet and sloping depression with minor rilling (slopes 1-4%, 2e, 5-4w, 1-2s, 2g) PiE – depression area flats/slight lower slopes (slopes 0-1.5%, 4-5w, 1-2s) PiEw – drainage area flats/headwater soaks (slopes 0-1.5%, 5-7w, 1-2s) PiL – wet and slightly saline sloping drainage areas (slopes 2-5%, 2e, 5-4w, 2-3s) PiO – wet and slightly saline drainage depression areas (slopes 0-2%, 5w, 2-3s)</p> <p>Summary: wet and infertile soils.</p>
XVX XVM	0.9 1.3	<p>Drainage flats.</p> <p>Main soils: sandy to loamy texture contrast soils – <u>sand or loam over clay</u> G3-F1-N2-N3 (<i>Brown-Grey Sodosol</i> with some <i>Sodosolic Hydrosols</i>) with some <u>bleached siliceous sand</u> H3-I1 (<i>sandy Tenosol-Podosol</i>). Some soils have calcareous subsoils, especially toward the seaward end of this river flat.</p> <p>XVX – mostly sandy river flats, swamps, and swampy drainage depression (4*s, 5-7w) XVM – mostly loamy river flats with some saline and/or swampy patches (4-5w, 3*s)</p> <p>Summary: wet, marginally saline, and prone to flooding.</p>
XXS	1.6	<p>Drainage flats and lower slopes.</p> <p>Main soils: sandy to loamy texture contrast soils – <u>sand or loam over clay</u> G3-F1 (<i>Brown-Grey Sodosol</i>) on flats and drainage depressions; texture contrast soils on weathered rock on lower slopes K4 (<i>Brown Sodosol on weathered rock</i>); and some <u>bleached siliceous sand</u> H3-I1 (<i>sandy Tenosol-Podosol</i>) along drainage lines.</p> <p>XXS – flats, drainage lines/depressions, and some lower slopes (Overall: 3°s, 5w, 3e. Flats: <1% slope, 4-5w, 3-2s, drainage depressions and drainage lines: 0-3% slopes, 3°s, 5w; lower slopes: 3-30% slopes, 4w, 3-2s.)</p> <p>Summary: Non-arable to semi arable drainage flats, slightly saline and prone to flooding.</p>
XuU	1.3	<p>Headwater soaks.</p> <p>Main soils: wet <u>highly leached sand</u> I2 (<i>Podosol</i>).</p> <p>XuU – headwater swamps or soaks (7w, 2-1s)</p>



		Summary: very wet and infertile soils. Basically the same landscape as 'ZP2' land units but non saline, and 'Pi' land units but wetter.
ZO-	0.2	Lagoonal depressions.
ZN-	0.5	Main soils: wet <u>highly leached sand</u> on a clayey substrate I2 (<i>Podosol</i>) and/or <u>sand over clay</u> G3-N3
ZP1	0.2	(<i>Brown-Grey Sodosol</i> or <i>Sodosolic Hydrosol</i>) on lagoon surrounds/headwater soaks. Wet texture
ZP2	1.6	contrast soils, some marginally saline, N3-N2 (<i>Sodosolic Hydrosol</i>) in lagoons. <u>Sand or loam over clay</u>
ZQ-	1.9	G3-F1 (<i>Brown Sodosol</i>) in waterlogged depressions.
ZR-	0.2	ZO- – small waterlogged depressions (2-3s, 5-7w) ZN- – complex of slightly saline low lying lagoon surrounds, lagoons, drainage depressions and very shallow lagoonal depressions; or a very shallow lagoonal/waterlogged depressions (3-2s, 5-7w) ZP1 – low lying lagoon surrounds; can include low sandy lunettes (2-3s, 4-5w) ZP2 – wetter and often slightly saline lagoonal/drainage depressions: low lying lagoon surrounds which can include low sandy lunettes; or proto-lagoons/headwater soak areas (3-2s, 7w) ZQ- – somewhat saline to slightly saline lagoons (3s, 7w). Some lagoons are bare; some are covered by melaleuca shrubs. Some lagoons are more saline (4s); some are almost non saline (2s) ZR- – bare marginally saline lagoons (7w, 4s)
		Summary: areas subject to wetness or seasonal flooding. Lagoon surfaces often have had much of their former sandy surfaces removed by wind action, especially if not covered with vegetation, resulting in clay loamy surface textures. Other lagoons have thin to medium thickness bleached sandy topsoils. Lagoons and some waterlogged depressions situated close to the shelly coastal dune area can have soils which are calcareous throughout.
ZD-	0.2	Salt lakes. ZD- – salt lakes in the lower Stun'sail-Boom River valley (5s, 7w) Summary: saline and seasonally flooded.

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:

- J2** Ironstone soil (*Ferric Brown Sodosol-Chromosol*). Medium thickness to very thick topsoils: with sandy loam, or sometimes loam or loamy sand grey-brown or dark brown surface soil; and a sandy loam, sandy or loam yellow-brown subsurface layer with ironstone gravel. Thicker topsoils tend to be sandier. Underlying this is a yellow-brown or olive-brown clayey subsoil which is often dispersive; and below this is a yellow-brown, olive-brown, olive or yellow clayey substrate with red, yellow-brown, olive-brown and/or olive mottles. Sometimes a transition layer of clay loam or light clay with ironstone gravel occurs between topsoil and clayey subsoil. Soil pHs are mostly acidic, with some strongly acidic. Found on plateau surfaces and slopes (especially upper slopes).
- J3** Shallow soil on ferricrete (*Petroferric Tenosol*). Shallow, with some moderate depth sandy or loamy soil on ferricrete. The ferricrete layers consist of cemented ironstone sheets, boulders, or sometimes just very dense ironstone gravel. Two soil variants occur. The sandy variant consists of thick to very thick sand, usually with a bleached subsurface layer, overlying a ferricrete layer; underlain by dispersive, mottled, and often quite wet, olive clayey substrate. (Occasionally on plateau surface margins, very dense ironstone gravel is associated with very small and rounded quartz fragments – evidence of ancient glacial activity?). The loamy soil variant consists of medium to thick sandy loam, often with ironstone gravel, overlying a ferricrete layer which is often just very dense ironstone gravel; underlain by mottled clay which is often sodic. (These soils are closely related to the ironstone soils described above.) Soil pHs for both variants are mostly acidic, with some strongly acidic. Found on plateau surfaces, slopes and plains.



G3-F1-N3-N2 Sand or loam over clay (*Brown-Grey Sodosol* or *Sodosolic Hydrosol*). Medium thickness to very thick topsoils: with loamy sand, sandy loam, loam, or occasionally clay loam surface soil; usually with a sandy to loamy subsurface layer which is often bleached and sometimes includes some ironstone. This subsurface layer is often missing in swamps and lagoons where some topsoil has been lost through past wind erosion events and surface soils are usually loamy or clay loamy. Underlying this is a yellow-brown, olive-brown, olive, grey or green-grey usually dispersive clayey subsoil with some mottles. Lower subsoils are sometimes calcareous. Topsoil and upper subsoil pHs vary from neutral to strongly acidic, while lower subsoil are often alkaline. The yellow-brown and olive-brown subsoils are found in some depressions, lows and flats on plateau surfaces and slopes, and in many drainage depressions/flats; while the olive, grey and green-grey subsoils are found in swamps, lagoons, as well as wetter drainage depression areas.

K4-K2 Loam or sand over brown clay on weathered rock (*Brown Sodosol on weathered rock*). Medium to thick sandy or loamy topsoil, often with some quartz, meta-sandstone, and/or ironstone fragments (usually highly ferruginised meta-sandstone), and often with a bleached subsurface layer; over mottled olive-brown to yellow-brown dispersive clay; which overlies weathered rock, usually meta-sandstone, at less than one metre depth. Soil pHs are mostly acidic, with some strongly acidic. Found on creek gully slopes, slopes (especially lower slopes), and some plateau surfaces.

Minor soils:

I2 Highly leached sand (*Podosol*). Very thick sands with a bleached subsurface layer, and a dark and firm fine loamy sand or fine sandy loam subsoil layer of accumulated iron, some aluminium, and organic compounds within the top metre. Usually a dispersive clayey substrate, or sometimes a ferricrete layer, underlies these soils. Soil pHs are often strongly acidic, especially in upper soil layers. These soils are usually found in very wet areas, in depressions where sand has deposited such as headwater soaks and lagoon surrounds where the water table can be within one metre of the surface.

H3-I1 Bleached siliceous sand (*sandy Tenosol-Podosol*). Very thick sands with a bleached subsurface layer and a weakly developed orangey coloured sandy subsoil. Underlying this is usually a dispersive clayey substrate. Soil pHs are mostly acidic to strongly acidic. These soils are usually found in raised sandy deposits, such as low dunes, sandy deposits on plateau surfaces and slopes, and lunettes.

B3-B2-B1-B7 Shallow soil on calcrete (*Petrocalcic Tenosol-Calcarosol-Chromosol*). Shallow, with some moderate depth sandy loams and sands overlying calcrete, some of which are calcareous or even shelly (dominated by fine carbonate grains). Some of the shallow non calcareous variants have dispersive clay loam or light clay subsoils overlying the calcrete layer. Soil pHs mostly vary from neutral to strongly alkaline. These are found on slight rises which are remnants of old coastal dunes, and on much higher due core remnants (Mount Taylor and Mount Stockdale).

M1 Deep sandy loam (*loamy Tenosol*). Deep sandy loams, often with a bleached subsurface layer. Mostly found along drainage lines.

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

