

CNP Corny Point Land System

A relatively small land system comprising two areas of rising land situated on the far northwest of the 'foot' of the Yorke Peninsula. The system mostly consists of gently undulating rises and plains.

Area: 30.2 km²

Landscape: Mostly rising land with: 'summit' surfaces, gently undulating plains, slight slopes, some low lying areas, and some inland jumbled dunes. The coastal strip consists of coastal dunes, calcarenite cliffs underlain by hard rock, reefs, and some calccreted relict coastal dunes. Soils are highly calcareous, with many underlain by calcrete at shallow depth. Recent incursions of carbonate sand have occurred in places (mostly adjacent to coastal dunes). There is an area of inland jumbled carbonate sand dunes.

Annual rainfall: 420 – 450 mm average

Soils:

- B1a-B2** Shallow highly calcareous sandy loam on calcrete (around 31% of area)
- A1-A4** Highly calcareous sandy loam (around 30% of area)
- H1** Carbonate sand (around 20% of area)
- B1b** Shallow carbonate sand on calcrete (around 15% of area)

Main features: This system is composed of carbonate sands and highly calcareous sandy loams. Many soils are underlain by calcrete at shallow depth. These soils are characterised by inherent infertility, the potential for wind erosion, and water repellence. The supply of manganese, zinc, and phosphorus in particular are restricted by such soils. Regular applications of manganese are necessary for adequate crop growth, especially with the carbonate sands. Copper is also typically deficient in these soils, but can usually be adequately supplied by occasional applications. Surface soils are typically loose and need adequate vegetative cover at all times to prevent wind erosion. Some soils are too stony or shallow for cultivated agriculture. High levels of the toxic elements boron and sodium are likely to occur in the lower subsoils of deeper soils, and under calcrete layers. Raised subsoil salinity levels commonly occur.

Soil Landscape Unit summary: Corny Point Land System (CNP)

SLU	% of area	Main features #
QHA1 QHB1	1.5 0.5	Land dominantly by shallow highly calcareous soil on calcrete. Main soils: shallow highly calcareous sandy loam on calcrete (soil B1a-B2). QHA1 – mostly non arable very stony plain or very low rise (slopes <1%, 2-3s, 5-4r, 2a). QHB1 – mostly non arable very stony rise (slopes 1-3%, 2-1e, 2-1s, 5-4r, 2-3a).
QLA QLB	9.4 4.1	Land dominated by shallow highly calcareous soil on calcrete and some deeper calcareous soils. Main soils: shallow highly calcareous sandy loam to loamy sand on calcrete (soil B1a-B2). With some highly calcareous sandy loam to loamy sand (soil A1-A4). QLA – lower slight slopes and plains (slopes 0-1.5%, 2-3s, 3r, 3-2a). QLB – slopes (slopes 1-2.5%, 2-1e, 2-3s, 3-2r, 3-2a).
QDA QDAa QDB QDO QDOa QDOs QDZ	10.3 23.0 4.0 14.4 5.2 1.3 5.2	Land with shallow highly calcareous soil on calcrete and deeper highly calcareous soils. Main soils: shallow highly calcareous sandy loam to loamy sand on calcrete (soil B1a-B1b-B2). And deeper calcareous sandy loam and loamy sand (soil A1-A4-H1), especially in low lying areas. The carbonate sands (soil H1) particularly occur in near-coastal land units adjacent to coastal dunes. QDA – mostly arable gently undulating low rises and slight slopes (slopes 0-1.5%, 2s, 2-3r, 3a).



		<p>QDAa – mostly arable near-coastal gently undulating low rises (slopes 0-2%,</p> <p>QDB – mostly arable gently undulating to undulating rises (slopes 1-3%, 2-1e, 2-1s, 2-3r, 3a).</p> <p>QDO – mostly arable relatively low lying plains with saline seepage (slopes <1%, 3s, 3-2r, 2-3a).</p> <p>QDOa - mostly arable near-coastal relatively low lying plains with saline seepage (slopes <1%, 3s, 2-3r, 2-3a).</p> <p>QDOs – mostly arable relatively low lying plains with saline seepage (slopes <1%, 3-4s°, 3-2r, 2-3a).</p> <p>QDZ – mostly arable summit surfaces (slopes <1%, 1-2s, 2-3r, 3a).</p>
SLO SLT	3.5 0.2	<p>Land with deep to shallow highly calcareous soils.</p> <p>Main soils: Highly calcareous loamy sand to sandy loam (soil A1-H1), and some shallow highly calcareous loamy sand to sandy loam on calcrete (soil B1a-B1b).</p> <p>SLO – mostly arable low lying plains with saline seepage (slopes <1%, 3-2s, 2-1r, 3-2a).</p> <p>SLT – semi arable depression with marginal salinity (slopes <1%, 4s, 1-2r, 2-3a).</p>
YEC YEL	2.9 0.6	<p>Land dominated by carbonate sand dunes.</p> <p>Main soils: carbonate sand (soil H1). Some shallow carbonate sand may occur (soil B1b).</p> <p>YEC – non arable to semi arable low jumbled dunes (5a, 1-2s).</p> <p>YEL – non arable to semi arable sand spreads or very low dunes (4a, 1-2s).</p>
YdL YdU	2.2 0.2	<p>Land dominated by shallow carbonate sands.</p> <p>Main soils: shallow carbonate sand (soil B1b) with some deeper carbonate sand (soil H1).</p> <p>YdL – semi arable to non arable sand spreads (slopes <1%, 4a, 4r, 1-2s).</p> <p>YdU – non arable low lying plain with saline seepage (slopes <1%, 2a, 4r, 3s).</p>
MaA MaYA MaYB	0.1 0.9 0.1	<p>Calcreted relict coastal dunes.</p> <p>Main soils: shallow carbonate sands and shallow highly calcareous sands (soil B1b-B1a).</p> <p>MaA – non arable low rise (old relict dune, slopes 0-1%, 4-5r, 2s, 3-2a, 1-2y).</p> <p>MaYA – non arable low relict dunes (slopes 0-2%, 4-5r, 4-3a, 3-2y).</p> <p>MaYB – non arable moderate height relict dunes (slopes 1-6%, 2e, 4-5r, 5-4a, 3y).</p>
WGE WGE _x WGe WGD WGO	0.2 2.2 0.6 3.2 0.1	<p>Coastal dunes and sand spreads dominated by carbonate sands.</p> <p>Main soils: carbonate sand (soil H1). With some shallow carbonate sand on calcrete (soil B1b) in areas with low dunes.</p> <p>WGE – non arable low coastal dunes (5a).</p> <p>WGE_x – cliff-top non arable low coastal dunes (7-5a, 3y).</p> <p>WGe – beach and steep coastal slopes with bare sand (7-5a).</p> <p>WGD – non arable moderate height to high coastal dunes (7-5a, 5-20% bare sandy areas).</p> <p>WGO – sand spread on steep coastal slope (slopes 30-100%, 5-7a, 2-3e).</p>
WAA	3.0	<p>Coastal cliffs (slopes 30-100%), with some sandy beach areas and some rocky reefs. Cliffs mostly comprise calcarenite, with some hard rock at the base.</p>
WT-	0.9	<p>Rocky reefs.</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:**Soils:**

- B1a-B2** *Shallow highly calcareous sandy loam on calcrete* [Petrocalcic Supravescent-Hypervescent Calcarosol]
A very highly to highly calcareous grey fine sandy loam to fine loamy sand overlying calcrete at shallow depth. The very highly calcareous types are dominated by carbonate particles (soil **B1a**). Surface soils are typically loose, especially the more calcareous types. Surface soils can be water repellent. Hard carbonate rubble commonly occurs in the profile.
- A1-A4** *Highly calcareous sandy loam* [Supravescent-Hypervescent Calcarosol]
A moderate depth to deep very highly calcareous to calcareous grey fine sandy loam to fine loamy sand grading to a loamy subsoil. Carbonate particles dominant the more highly calcareous soils (soil **A1**). Surface soils are typically loose. The profile can contain various amounts of hard carbonate rubble, or can be underlain by calcrete at moderate depth.
- H1** *Carbonate sand* [Shelly Calcarosol-Rudosol]
A deep to moderate depth light grey loose fine loamy sand to sand. The soil is dominated composed of carbonate particles. Soil colour lightens with depth. Soils are typically strongly water repellent. These soils are found on modern coastal deposits where they have little profile development (Rudosols), and on some areas inland of coastal deposits as somewhat older sediments (Calcarosols).
- B1b** *Shallow carbonate sand on calcrete* [Petrocalcic Shelly Calcarosol-Rudosol]
A shallow light grey loose fine loamy sand to sand. The soil is dominated composed of carbonate particles. Soil colour lightens with depth. Soils are typically water repellent. These soils are found on calcreted relict coastal dunes where they have little profile development (Rudosols), and on areas inland of coastal deposits as somewhat older sediments (Calcarosols).

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

