## **KEV** Kevin Land System

**Area:** 364.3 km<sup>2</sup>

**Landscape:** Extensive near coastal salt lake / salt flat systems including back swamps and

samphire flats on low lying ground extending inland. Associated with the saline flats are higher areas of coastal sands, calcreted calcarenite of old coastal dunes (Bridgewater Formation), highly calcareous Woorinen Formation deposits, highly

calcareous sands, and Ripon / Bakara Calcretes.

**Annual rainfall:** 295 – 375 mm average

Main soils: Yamba - N2a (Hypersalic Hydrosol)

Variable highly saline sand and clay of coastal flats and swamps.

<u>Saline soil</u> - **N2b** (Salic / Hypersalic Hydrosol)

Miscellaneous wet saline soil influenced by saline groundwater tables. Gypsum

lenses are characteristic of these profiles.

Minor soils: Chintumba - B1b (Hypervescent, Petrocalcic, Lithocalcic Calcarosol)

Medium thickness highly calcareous sandy loam to sandy clay loam containing increasing amounts of rubble with depth, over sheet calcrete at less than 50 cm.

Russell - B1a (Supravescent, Petrocalcic, Lithocalcic Calcarosol)

Medium thickness very highly calcareous loamy sand to sandy loam containing increasing amounts of rubble with depth, over sheet calcrete at less than 50 cm.

<u>Semaphore</u> - H1a/H3 (Shelly Rudosol)

Very thick sand comprising mixed shell and quartz grains.

Wookata - A1b (Supravescent, Hypercalcic / Lithocalcic Calcarosol)

Very highly calcareous (more than 40% CaCO<sub>3</sub>) soft loamy sand to sandy loam grading to very highly calcareous sandy loam with variable rubble content.

Wookata (shallow) - A1a (Supravescent, Petrocalcic, Lithocalcic Calcarosol)

Very highly calcareous (more than 40% CaCO<sub>3</sub>) soft loamy sand to sandy loam grading to very highly calcareous rubbly sandy loam, over calcrete deeper than 50 cm.

<u>Shallow Haslam</u> - **H1b** (<u>Supravescent</u>, <u>Regolithic</u>, <u>Hypercalcic Calcarosol</u>)

Highly calcareous loamy sand to sand over calcrete usually at depths of between 50 and 100 cm.

Haslam - H1c (Supravescent, Hypercalcic Calcarosol OR Shelly Calcarosol)

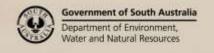
Thick highly calcareous sand, becoming more calcareous with depth and

continuing below 100 cm. These soils may consist of up to 90% fine shell fragments.

**Summary:** Low lying saline flats with little or no agricultural value. Associated with the flats are

low rises of highly calcareous sandy loams, shallow stony sandy loams and highly calcareous sands. The deeper sandy loams have some potential, although wind erosion potential and low fertility limit productivity. Gypsum mining is extensive on this

land.





## Soil Landscape Unit summary: 13 Soil Landscape Units (SLUs) mapped in the Kevin Land System:

SLU	% of area	Component	Main soils	Prop#	Notes
MeB	1.6	Stony rises	Shallow Wookata	Е	Rises formed on Bridgewater Formation Calcarenites, overlain by Woorinen
		Sandy loam rises	Wookata	E	sediments. Most of the land is too stony /
		Sand spreads	Haslam	С	steep / exposed for cropping, but the
MzC	1.9	Steep rocky slopes on coast	Russell	D	Wookata/Haslam soils are arable, although prone to wind erosion, nutrient deficiencies and low waterholding capacity.
QFA	3.6	Very stony flats	Chintumba	٧	Stony land formed on Ripon / Bakara
		Sandspreads	Haslam	L	Calcrete. Most is non arable - the land
QHB	3.7	Stony rises	Chintumba	D	which is arable has either stony shallow soils, or infertile and wind erosion prone sands.
WM-	1.9	Mangrove swamps	-	D	Coastal land complex of back swamps and
WO-	0.2	Samphire flats (back swamps)	Yamba	D	coastal dunes. No agricultural potential.
WR-	9.1	Salt flats (back swamps)	Yamba	٧	
		High coastal sandhills	Semaphore	Е	
YKE	2.5	Sandspreads	Haslam	D	Flats formed on highly calcareous Woorinen
YLL	0.1	Sandy loam flats	Wookata	Е	Formation deposits, with highly calcareous
		Stony flats	Shallow Wookata	С	sandy loams and sands. Main factors affecting productivity are wind erosion
		Sandspreads	Haslam	С	potential, marginal fertility and limited waterholding capacity
ZD-	7.5	Salt lakes	-	D	Saline land with little or no productive
ZH-	19.5	Complex of marginally and highly saline flats and salt lakes	Saline soil	D	potential. The limited areas of deep sands and shallow stony soils are also non productive. There is extensive gypsum
ZI-	30.9	Salt flats	Saline soil	٧	mining on this land. Saline soils are
		High coastal sandhills	Semaphore	L	potentially sulfidic.
ZK-	17.5	Salt flats	Saline soil	٧	
		Stony rises	Russell	L	

# PROPORTION codes assigned to Soil Landscape Unit (SLU) components:

- D Dominant in extent (>90% of SLU)
- V Very extensive in extent (60–90% of SLU)
- E Extensive in extent (30–60% of SLU)
- C Common in extent (20–30% of SLU)
- L Limited in extent (10–20% of SLU)
- M Minor in extent (<10% of SLU)

Further information: <u>DEWNR Soil and Land Program</u>

