

# SCB      Sceale Bay Land System

- Area:** 100.3 km<sup>2</sup>
- Landscape:** Peninsula formed on Ripon / Bakara Calcretes and overlain in turn by Bridgewater Calcarenes, highly calcareous silty sands of the Woorinen Formation and highly calcareous Lowan Sands. Along the coastline are moderate to high dunes of calcareous/siliceous Semaphore Sand, with backswamps. The landscape is gently undulating.
- Annual rainfall:** 325 - 350 mm average
- Main soils:**
- Semaphore - **H1a/H3** (Shelly Rudosol)  
Very thick sand comprising mixed shell and quartz grains.
- Calcrete soil - **B2** (Petrocalcic, Lithocalcic Calcarosol)  
Thin calcareous sandy loam to clay loam over hard calcreted Bridgewater Formation calcarenite (**B2a**), or older Ripon / Bakara Calcrete (**B2b**), associated with abundant surface calcrete stone and sheet rock.
- Russell - **B1a** (Supravescent, Petrocalcic, Lithocalcic Calcarosol)  
Medium thickness highly calcareous loamy sand to sandy loam containing increasing amounts of rubble with depth, over sheet calcrete at less than 50 cm.
- Haslam - **H1b** (Supravescent, Hypercalcic Calcarosol / 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.
- Wookata - **A1** (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.
- Minor soils:**
- Yamba - **N2b** (Hypersalic Hydrosol)  
Variable highly saline sand and clay of coastal flats and swamps.
- 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.
- Saline soil - **N2a** (Salic / Hypersalic Hydrosol)  
Miscellaneous wet saline soil influenced by rising saline groundwater tables.
- Summary:** Gently undulating flats and rises with mixed stony, sandy and sandy loam soils. The stony areas include inland calcrete flats and coastal calcarenite outcrops. The soils are shallow, rocky and non arable. They represent almost 40% of the area. Coastal sands (highly infertile and extremely susceptible to wind erosion) occupy about 25% of the area. Highly calcareous sandy loams and sands (about 30% of the area) are arable, although of marginal fertility and moderately to highly susceptible to wind erosion. The rest of the land is non productive salt flats and salt lakes.



**Soil Landscape Unit summary:** 16 Soil Landscape Units (SLUs) mapped in the Sceale Bay Land System

SLU	% of area	Component	Main soils	Prop#	Notes	
M-A	11.3	Very stony flats	Calcrete	D	Flats formed on Bridgewater Calcarenites with mainly shallow stony soils (non arable), and limited deep sands. These are infertile and highly susceptible to wind erosion	
MaA	3.0	Stony flats	Chintumba	D		
MeA	3.1	Moderate sandhills	Semaphore	E		
		Stony flats	Chintumba	E		
QFK	7.7	Stony flats with saline patches	Calcrete	V		
		Sandspreads	Haslam	L		
WFC	6.1	High coastal sandhills	Semaphore	D		
WFD	5.0	Moderate coastal dunes	Semaphore	D		
WFc	2.3	High bare coastal dunes	Semaphore	D		
WFd	1.5	Moderate bare coastal dunes	Semaphore	D		
WO-	4.8	Saline back swamp	Yamba	D		
WX-	19.5	Frontal slopes:				
		Sandy	Semaphore	E		
		Stony	Russell	E		
WY-	6.9	Frontal slopes:				
		Rocky	Russell	V		
		Sandy	Semaphore	L		
WYA	1.4	Rocky frontal slopes	Russell	D		
YAI	0.6	Sandy loam flats	Wookata	V	Flats and rises formed on highly calcareous Woorinen Formation deposits with highly calcareous sandy loams and sands. The land is fully arable, although low fertility and moderate to high wind erosion potential restrict productivity. Main soils are: <u>Wookata</u> : Highly calcareous sandy loam with slightly limited water holding capacity, low fertility, subsoil boron and salt, and slight to moderate wind erosion potential. <u>Haslam</u> : Highly calcareous sand with very low fertility and high wind erosion potential.	
		Sand spreads	Haslam	C		
YAm	7.5	Sandy loam rises	Wookata	V		
		Sand spreads	Haslam	C		
YEI	18.0	Sand spreads	Haslam	V		
		Sandy loam flats	Wookata	C		
ZD-	1.3	Salt lakes	Saline soil	D		-

# 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:** [DEWNR Soil and Land Program](#)

