

# THK Theakstones Land System

**Area:** 164.4 km<sup>2</sup>

**Landscape:** Undulating coastal land formed on Bridgewater Formation Calcarenes which outcrop extensively, partly covered by calcareous and siliceous Semaphore Sands as dunes and spreads. A granitic intrusion (partly calcrete capped) protrudes through the calcarenite forming the West Point headland.

**Annual rainfall:** 375 - 550 mm average

**Main soils:** Russell - B1 (Supraescent, 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.  
Semaphore - H1a/H3 (Shelly Rudosol)  
Very thick sand comprising mixed shell and quartz grains.  
Shallow Semaphore - H1b (Petrocalcic, Shelly Rudosol)  
Thick shell sand over calcrete between 50 and 100 cm

**Minor soils:** Calcrete / Skeletal - B2/L1 (Petrocalcic / Lithic, Lithocalcic Calcarosol)  
Thin calcareous sandy loam to sandy clay loam over rubbly or sheet calcrete (**B2**), or basement granite (**L1**).

**Summary:** Undulating calcrete country with shallow stony soils, extensively overlain by deep coastal sands as medium to high dunes and lower sand spreads. There is a large granite outcrop at the southern-most point of the System. The land is all in conservation park.

**Soil Landscape Unit summary:** 7 Soil Landscape Units (SLUs) mapped in the Theakstones Land System:

SLU	% of area	Component	Main soils	Prop#	Notes
A-kg	1.0	Rock rises	Calcrete / skeletal	D	Rocky basement rock rises, mostly capped by calcrete.
MeC	47.4	Undulating stony rises	Russell	D	Shallow stony calcareous sandy loam Coastal dunes of deep unstable sand.
WFC	0.2	High coastal dunes	Semaphore	D	
WFL	33.5	High coastal dunes on frontal slopes	Semaphore	D	
WFc	7.9	High bare coastal dunes	Semaphore	D	
WX-	2.8	Frontal slopes / cliffs:			Frontal (sea facing) slopes and cliffs of calcarenite with variable sand dune / sand spread cover.
		- sand spreads and dunes	Semaphore	E	
		- rocky	Russell	E	
WY-	7.2	Rocky frontal slopes / cliffs with some sand	Russell / Semaphore	D	

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

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

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

