

495165

MARSHALL BAY

Consisting of coastal calcareous beaches, dunes and ridges formed on Quaternary sands and limestone deposits, this system occupies the western coastal areas of Flinders Island near Whitemark, Palana and Lughrata. The two components on limestone deposits are similar to those found in Barclay's Hill Land System (495122).

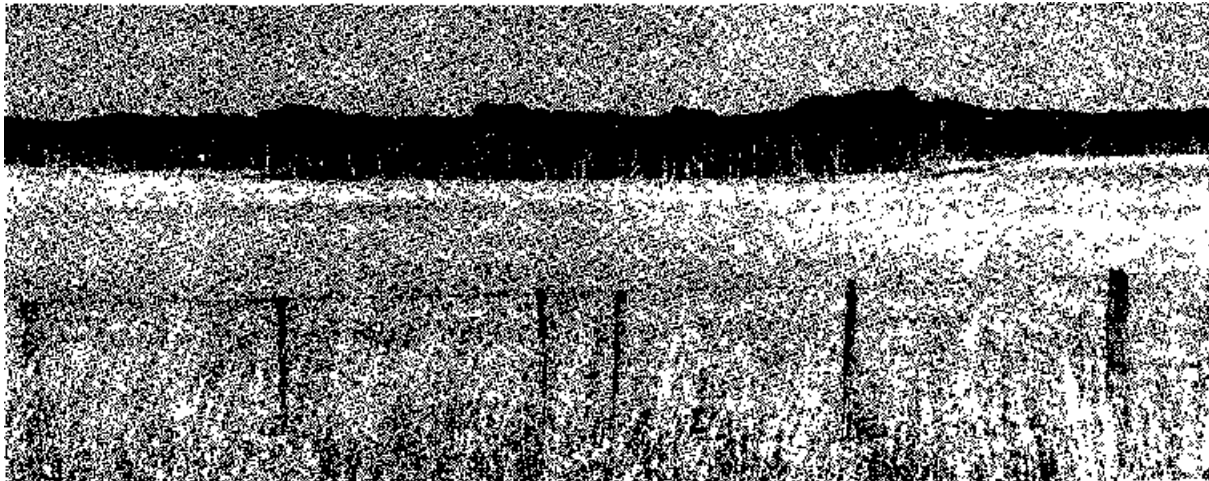
Deep sand soils have developed on the beach and dunes. The duplex soils on the ridges give way to

a deep gradational soil in the swales. Limestone fragments and boulders are found at depth in the profiles on the two lower components. These soils closely resemble those of the Lachrana, Lughrata and Ranga Soil Associations as described by Dimmock (1957).

Leptospermum spp., blue gum, paperbark and false boobyalla dominate the vegetation.

The principal land use is grazing, although large areas remain undeveloped.

Wind, sheet and gully erosion are the main hazards.



Paper-bark vegetation in swales

LAND SYSTEM

495165

Marshall Bay



COMPONENT	1	2	3	4
PROPORTION %	10	20	50	20
CLIMATE	Average Annual Rainfall 750-1 000 mm			
GEOLOGY	Quaternary —calcareous sands and limestone deposits			
	Calcareous sands		Limestone deposits	
TOPOGRAPHY	Coastal dunes, beaches and ridges			
Land form	Beach	Dunes	Ridges	Swales
Position				
Average Sideslope °	1	3	2	2
NATIVE VEGETATION	No vegetation	Open-scrub	Low open forest	woodland
Structure				
Association		False boobyalla, native hop, <i>Leptospermum laevigatum</i> , manuka	Manuka, paperbark, prickly box, she-oak, blue gum	Paperbark, manuka
SOIL	Undifferentiated yellow (10 YR 7/6) calcareous sand soil, uniform texture Sand	Brownish yellow (10 YR 6/6) sand soil, uniform texture Loamy sand	Reddish brown (5 YR 4/4) duplex soil Sandy loam	Red (2 5 YR 4/6) gradational soil Clay loam
Surface Texture				
Permeability		High		Moderate
Average Depth m		>20	10	18
PRESENT LAND USE	Nature conservation, recreation		Grazing	
HAZARDS	Severe wind erosion		High wind erosion	Moderate sheet and gully erosion