524132

SMITHTON

Extending 20 kilometres southward from Smithton, on the north coast, is a belt of low hills with broad, gently sloping crests It averages a little more than 2 kilometres in width and its western margin is a clearly defined scarp which descends 100 m to the plains below (see Plains and Montagu River land systems) Fundamental differences in parent materials and their effects on soils are the factors used in distinguishing between Smithton and Pagans Road land svstems

The red soils found on the scarp slopes and crests are probably mainly derived from the volcanic rocks Pockets of Precambrian dolomite have given rise to areas of siliceous gravelly sands Also, it is possible that the duplex soils on the broad lower crests are due to the incorporation into the A horizon of dolomitic material from adjacent areas of Precambrian rock Greenish to bluish, weathered parent material appeared at about 0 . 8 m depth, beneath the boggy, olive grey clays in the drainage lines

Remnants of natural vegetation indicate that stringybark with an understory of dogwood once occured on the red soils The dominance of swamp gum and the presence of paperbark indicate poorer drainage properties on the areas of yellowish brown and strong brown soils

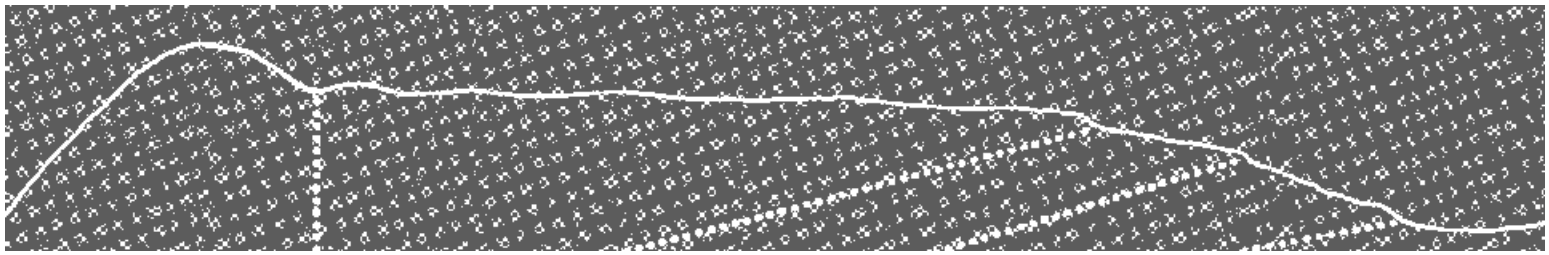
Smithton land system has been largely cleared for grazing and cropping

There is a high soil erosion hazard on the steep vallev slopes and waterlogging is a major problem along the drainage lines

LAND SYSTEM

524132

Smithton



COMPONENT	1	2	3	4	5
PROPORTION %	20	50	10	10	10
CLIMATE	Average Annual Rainfall 1000-1250 mm				
GEOLOGY	Cambrian greywacke turbidite sequences, basic intermediate volcanic rocks				
			Colluvium		
TOPOGRAPHY Land form	Low hills				
Position	Crests, western scarp	Broad lower crests	Midslopes	Steep footslopes	Drainage lines
Average Sideslope	7	2	5	15	2
NATIVE VEGETATION Structure	Tall open forest				Closed scrub
Association	Stringybark, dogwood	Swamp gum, stringybark, blackwood, paperbark			Woolly tea tree, blackwood
SOIL	Gravelly, red (2 5 YR4/8) gradational soil	Yellowish brown (10 YR 5/8) duplex soil, iron stone gravel layer at bottom of A horizon	Gravelly, yellowish brown (10 YR 5/6) gradational soil	Gravelly, strong brown (7 5 YR 5/6) gradational soil	Olive grey (5 Y 5/2) clay soil, uniform texture
Surface Texture	Clay loam	Sandy clay loam		Clay loam	
Permeability			Moderate		
Average Depth m	1 0	>1 8	0 6	1 2	1 6+
PRESENT LAND USE	Grazing, cropping				
HAZARDS	Moderate sheet and rill erosion			High sheet, rill erosion	High waterlogging