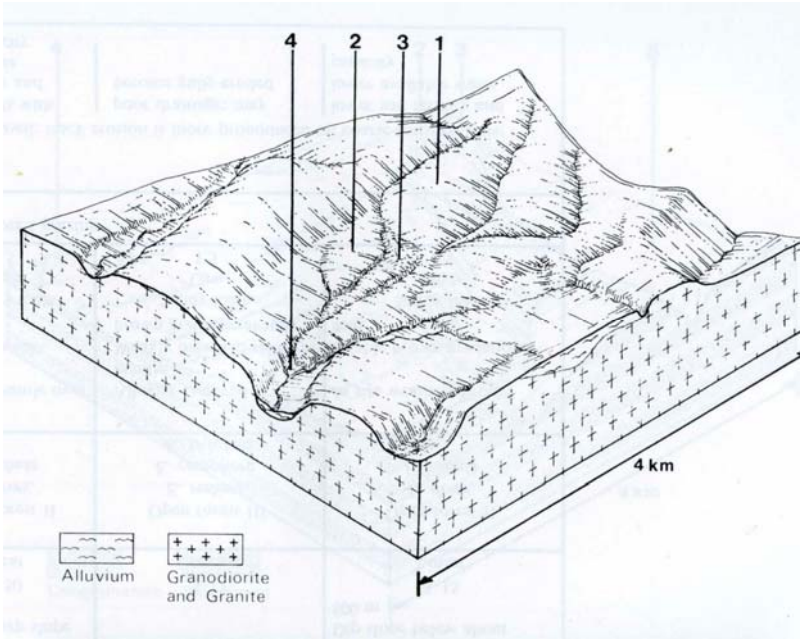
7.24 Yackandandah land system

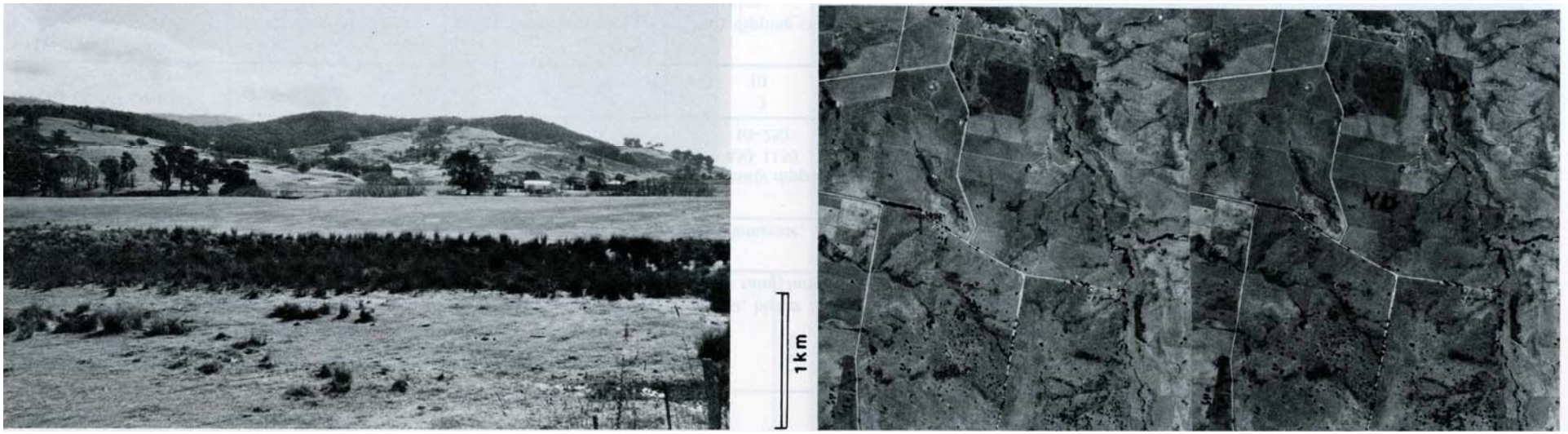
The land system of the same name in the Kiewa catchment (Rowe 1972) extends into the Mudgeegonga area in the north-east of the study area. The landscape consists mainly of low hills and rolling footslopes, at a slightly higher general level than the Myrtleford land system to the west. It has developed on the granite that extends from the Yackandandah basin south-west to The Pinnacles. Annual rainfall is moderate. Summers are hot and dry and winters cool and wet.

Soils are predominantly red duplex soils with smooth ped fabric, with weakly bleached reddish brown and yellowish brown gradational soils on lower slopes. Yellowish brown duplex soils occur on poorly drained upper surfaces. Generally the soils are deeply weathered.

The native vegetation was mainly open forest of *Eucalyptus macrorhyncha-E. dives* with *E. bridgesiana* and *E. rubida*.

Because of the hard-setting surface soils and the deeply weathered soil mantle, excessive surface run-off from agricultural areas has caused deep gullies in many of the drainage lines. This land system contains some of the most serious erosion in the study area.





YACKANDANDAH LAND SYSTEM Area 92 sq km

CLIMATE				
Rainfall, mean (mm)	Annual 1000; lowest January (50), highest July (150)			
Temperature, mean (^{o}C)	Annual 13; lowest July (7), highest January (20)			
Seasonal growth limitations	Temperature – less than 10^{o}C (av): June-August Precipitation – months less than 50% frequency of effective rain: January-February			
GEOLOGY				
Age, lithology	Silurian granite			
PHYSIOGRAPHY				
Landscape	Rolling to hilly dissected fan relicts and residual hills			
Elevation range (m)	350-450			
Relative relief (m)	50			
LAND COMPONENT	1	2	3	4
Percentage of land system	35	45	15	5
PHYSIOGRAPHY				
Land form	Residual hill	Dissected footslope	Fan	Drainage line
Position on land form	-	-	-	-
Slope range (%)	10-25	5-15	5-12	5-10
Slope shape	Convex	Linear-concave	Concave	Concave
NATIVE VEGETATION				
Structure	Open forest II (to III)			
Dominant species	*E. macrorhyncha, E. dives, E. bridgesiana, E. rubida*			
SOIL				
Parent material	*In situ* weathered rock	Colluvial-alluvial mantle	Alluvial-colluvial mantle	Alluvial-colluvial mantle
Description	Red duplex soils with smooth ped fabric	Red duplex soils with smooth ped fabric	Weakly bleached reddish brown gradational soils	Weakly bleached yellowish brown gradational soils
Surface texture	Sandy loam	Sandy loam	Sandy loam	Sandy loam
Permeability	Moderate	Moderate	Moderate	Low
Depth (m)	2.0	2.0	2.0	>2.0
LAND USE	Mostly cleared; grazing; sheep, beef and dairy cattle			
SOIL DETERIORATION HAZARD				
Critical land features, processes, forms	Hard-setting surface soils can result in high rates of surface run-off if ground cover is depleted; the deep weathering of the soil mantle can result in deep and extensive gully erosion.			