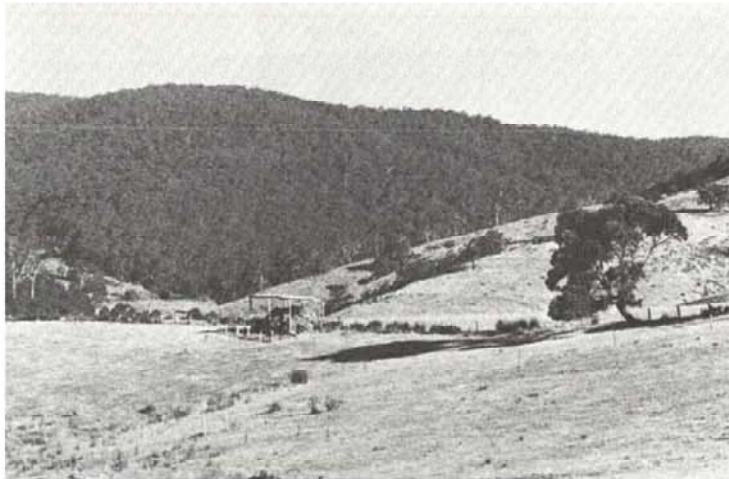


7.17 Forrest Land System

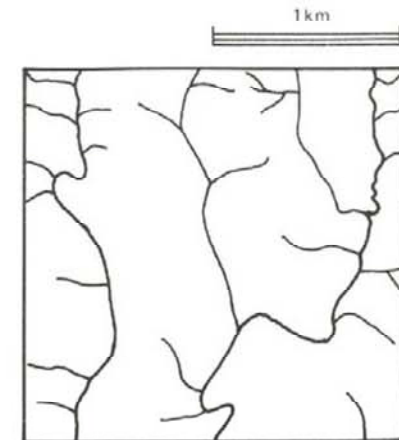
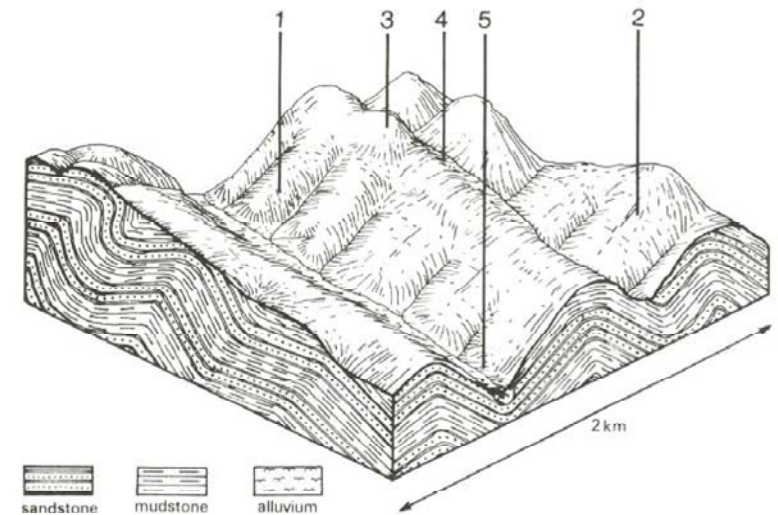
From Upper Gellibrand to Peters Hill, steep spurs and ridges with long straight slopes and narrow valleys form the rugged northern margin of the Otway Range. The climate is significantly drier than in other parts of the Range, with most areas receiving an annual rainfall of about 900 mm. The inland extent of the land system marks the northern boundary of continuous Cretaceous outcrop, although sporadic outcrops occur in the adjacent Pennyroyal land system.

The separation of these drier spurs and ridges from the rest of the Range is well reflected by changes in the structure and composition of the native vegetation. In particular, *Eucalyptus radiata* becomes a prominent member of the dominant stratum and the understorey changes from mesophytic species to drier sclerophyllous species such as *Acacia mucronata*, *A. verticillata*, *Cassinia longifolia* and *Epacris impressa*.

Most of this land system remains forested and is selectively logged for millable timber. Some parts of the eastern areas have been cleared for grazing, but management is difficult due to rugged terrain. Softwood plantations have also been established. Landslips and sheet erosion have been severe in some areas, and rapid run-off from these hills creates problems of gully erosion in the Barwon River land system.



On the areas that have been cleared weeds such as blackberries and ragwort become a problem.



FORREST Area: 135 km ²	Component and its proportion of land system				
	1 10%	2 50%	3 4%	4 35%	5 1%
CLIMATE Rainfall, mm Temperature, 0°C Seasonal growth limitations	Annual: 900 – 1,100, lowest January (45), highest August (130) Annual: 12, lowest July (7), highest February (17) Temperature: less than 10°C (av.) June – September Precipitation: less than potential evapotranspiration mid November – mid March				
GEOLOGY Age, lithology	Lower Cretaceous feldspathic sandstone and mudstone				
TOPOGRAPHY Landscape Elevation, m Local relief, m Drainage pattern Drainage density, km/km ² Land form Land form element Slope (and range), % Slope shape	Deeply dissected hills of the Otway Range 150 – 400 150 Dendritic 3.8 Hill				
NATIVE VEGETATION Structure Dominant species	Steepest slope 60 (20-70) Linear	North and west facing slopes 45 (25-65) Linear	Crest, upper slope 20 (5-30) Convex	South and east facing slopes 45 (25-65) Linear	Lower slope, drainage line 20 (1-35) Concave
SOIL Parent material Description Surface texture Permeability Depth, m	Colluvium Stony brown gradational soils Fine sandy loam Very high 0.5	In-site weathered rock Brown duplex soils Loam Moderate 0.9	In-situ weathered rock Brown duplex soils Loam Moderate 0.9	Tall open forest Brown gradational soils Loam High 0.9	Tall open forest Brown gradational soils, weak structure Silty loam Loam >2
LAND USE	Uncleared areas: Hardwood forestry for sawlogs, posts and poles; softwood forestry; nature conservation; active and passive recreation; water supply. Cleared areas: Beef cattle grazing on mainly unimproved pastures.				
SOIL DETERIORATION HAZARD Critical land features, processes, forms	Stony shallow soils with weak structure and low water holding capacity on steep slopes are prone to sheet erosion and landslips.	Dry aspect, steep slopes and weakly structured surfaces lead to sheet erosion. Clay subsoils on steep slopes subject to periodic saturation are prone to landslips.	Steeper slopes are prone to sheet erosion.	Steep slopes are prone to sheet erosion. Clay subsoils on steep slopes subject to periodic saturation are prone to landslips.	Weakly structured soils receiving run-off are prone to scour gullyng, siltation and flooding.