

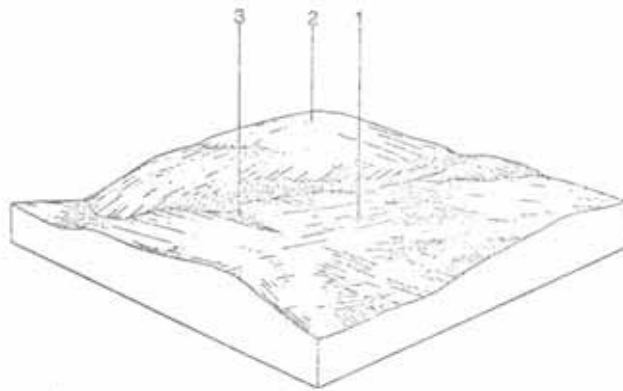
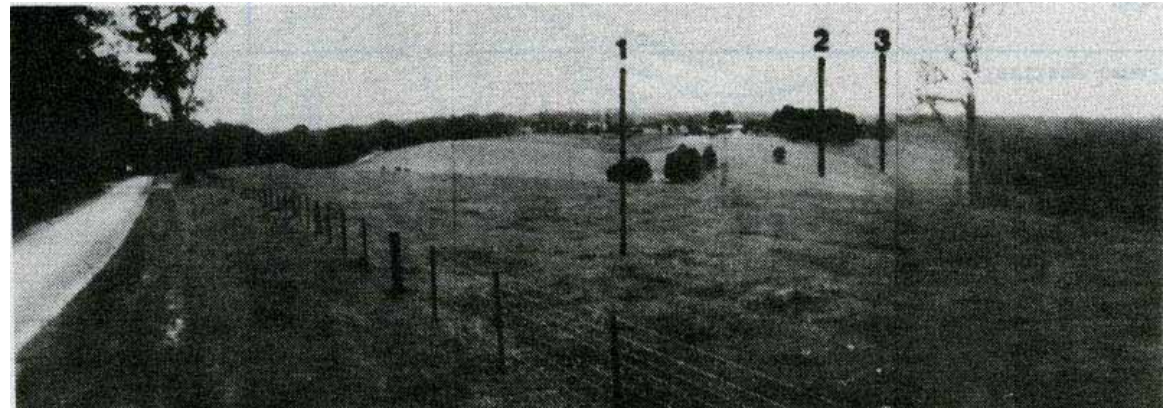
### 6.11 Kinglake Land System

Situated in the north-east corner, it covers 24.9 km<sup>2</sup> or 1.0% of the surrey area. The Great Dividing Range forms its northern boundary and the Nillumbik Terrain its southern.

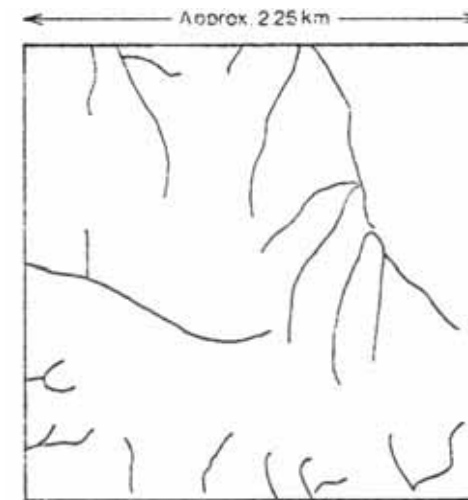
It is one of the two land systems on the Kinglake plateau. It differs from the other, the Mt. Disappointment Land System, in the type of bedrock, the Kinglake land system having sedimentary rocks, the Mt. Disappointment land system, igneous and metamorphic.

All soils in this land system are gradational, the two main types being red gradational and yellow gradational; no *explanation* has been found for their distribution. Both soils have a light textured, weakly structured topsoil grading into a heavier, more strongly structured subsoil; the yellow gradational soils, however, are less fertile.

Most of the vegetation has been cleared although there are a few remaining areas of open forest.



**Schematic Block Diagram**



**Drainage Pattern**

<b>COMPONENT</b>	1	2	3
Proportion %	90	3	7
<b>CLIMATE</b> Rainfall (av.) Temperature (av.) Seasonal growth limitations	Annual: 760-1200 mm (monthly range: October 100 mm – January 62 mm) Annual: 9°C (monthly range: February 18°C – July 6°C) Temperature: less than 10°C May – September Precipitation: less than potential evapotranspiration December – March		
<b>GEOLOGY</b> Age, rock	Devonian and Silurian siltstone, sandstone with minor mudstone and shale		
<b>TOPOGRAPHY</b> Landscape Elevation (range) m Local relief (av.) m Drainage pattern Drainage density km/km <sup>2</sup> Land form Slope (av.) %, slope shape	Dissected plateau 490-760 20 Dendritic 2.4 Crest 7; Convex		
		Slope 11; Convex	Drainage line 5; Straight
<b>NATIVE VEGETATION</b> Structure Dominant species	Open forest <i>E. obliqua</i> , <i>E. radiata</i>		
			<i>E. obliqua</i> , <i>E. cypellocarpa</i> , <i>E. radiata</i> , <i>E. dives</i> , <i>Acacia melanoxylon</i>
<b>SOIL</b> Parent Material Description	In situ weathered rock		
	Red gradational soils, fine structure, and/or yellow gradational soils, fine structure	Mottled brown, yellow gradational soils	Mottled brown, yellow gradational soils
Factual Key	Gn 3.11, Gn 4.81	Gn 4.7	Gn 3.51
Surface Texture	Clay loam	Loam	Loam
Permeability	High	Moderate – High	Moderate
Depth (av.) m	1.0	1.0	1.0
<b>LAND USE</b>	Forestry, water supply, recreation, occasional cropping (potatoes, strawberries)		
<b>SOIL DETERIORATION HAZARD</b> Critical land features	Nutrient holding capacity, slope gradient	Nutrient holding capacity, slope gradient	Permeability
Processes	Leaching	Leaching	Overland flow
Forms	Sheet erosion on cultivated land, nutrient decline	Sheet erosion on cultivated land, nutrient decline	Surface compaction