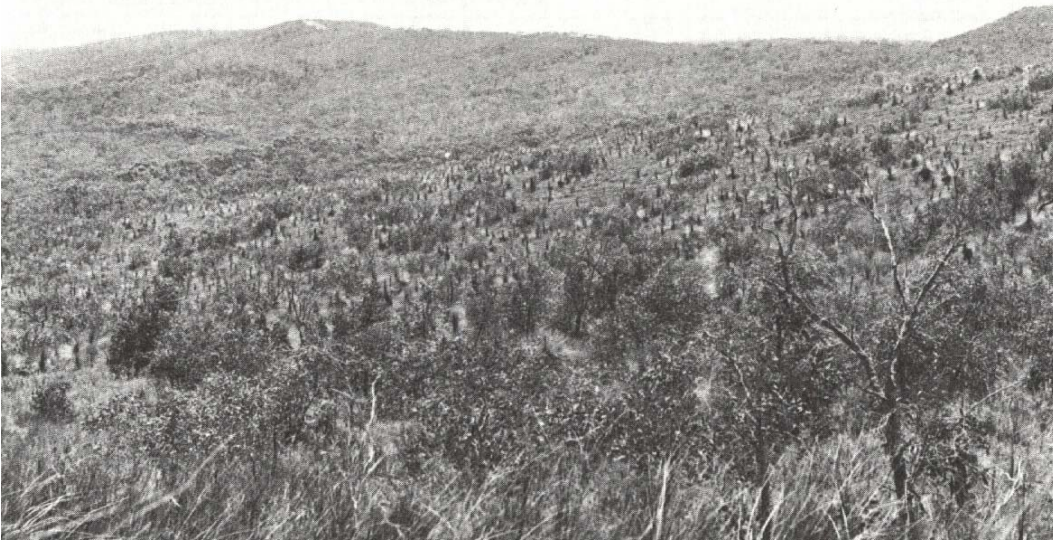


### 7.3 Bald Hills Land System

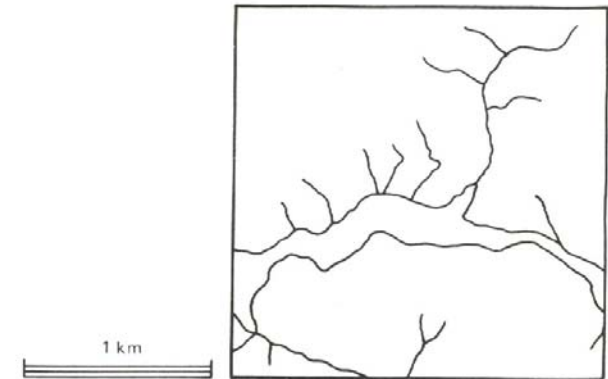
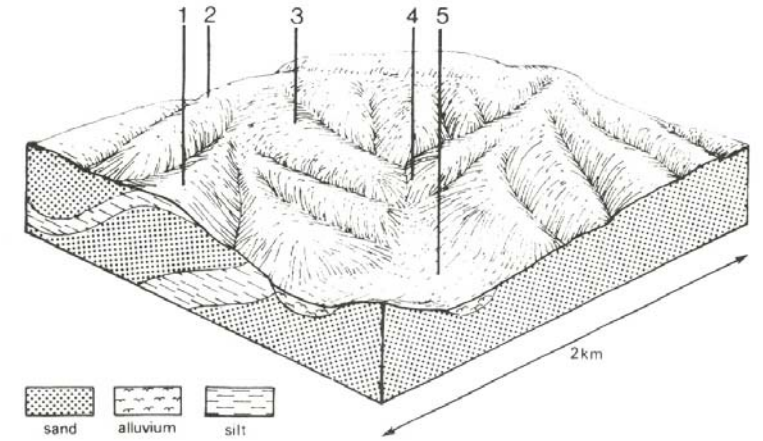
Inland from Anglesea is a deeply dissected landscape with very stunted native vegetation, referred to as the Bald Hills. The Tertiary sediments exposed here include both sands and clays and are characterized by soils of extremely low fertility.

Heaths and low woodlands are found on the upper parts of the landscape, where the sand soils tend to predominate. *Xanthorrhoea australis* is particularly common and tends to dominate on sites with hardpans developed in the soil profile. Lower down in the landscape, low forests or open forests of *Eucalyptus nitida* and *E. obliqua* tend to occur.

Productive land uses are limited to the mining of sand and gravel in numerous shallow extraction pits, and mining of coal near Anglesea. Nature conservation and recreation are other forms of land use.



*Low open woodlands of E. nitida with Xanthorrhoea australis in the understorey typify this land system, hardpan areas being demarcated by the absence of the tree stratum.*



<b>BALD HILLS</b> Area: 92 km <sup>2</sup>	Component and its proportions of land system				
	1 10%	2 25%	3 10%	4 40%	5 15%
<b>CLIMATE</b> Rainfall, mm Temperature, 0°C Seasonal growth limitations	<b>Annual:</b> 700 – 1,000, lowest January (35), highest August (100) <b>Annual:</b> 13, lowest July (8), highest February (18) <b>Temperature:</b> less than 10°C (av.) mid June – mid August <b>Precipitation:</b> less than potential evapotranspiration November - March				
<b>GEOLOGY</b> Age, lithology	Palaeocene unconsolidated quartz sand, gravel and clayey silt.				
<b>TOPOGRAPHY</b> Landscape Elevation, m Local relief, m Drainage pattern Drainage density, km/km <sup>2</sup> Land form  Land form element Slope (and range), % Slope shape	0 – 210  90 Dendritic 2.1 <b>Hill</b>   <b>Valley floor</b> Upper slope, crest   Upper slope, crest   Broad, slightly depressed area of impeded drainage   Lower slope   - 7 (3-15)   15 (2-35)   7 (3-12)   19 (10-35)   1 (10-3) Convex   Convex   Concave   Linear   Concave				
<b>NATIVE VEGETATION</b> Structure Dominant species	Low woodland <i>E. nitida</i>	Low open woodland <i>E. nitida</i>	Closed heath <i>Xanthorrhoea australis, Casuarina pusilla, Platylobium obtusangulum, Leptospermum myrsinoides</i>	Open forest <i>E. obliqua</i> <i>E. nitida</i>	Closed scrub <i>E. ovata, Leptospermum juniperinum, Leptospermum lanigerum, Acacia verticillata</i>
<b>SOIL</b> Parent material  Description Surface texture Permeability Depth, m	Kaolinitic silty clay; surface layers of quartz sand Grey sand soils, kaolinitic clay underlay Sandy loam Low >2	Quartz sand and gravel  Grey sand soils, uniform texture  Loamy sand Very high >2	Quartz sand and gravel  Grey sand soils with hardpans, uniform texture Loamy sand Low 0.6	Sand, silt and clay  Yellow gradational soils, weak structure Loamy sand High >2	Plant remains; alluvial silt, sand and gravel  Grey gradational soils  Silty loam Very low >2
<b>LAND USE</b>	<b>Uncleared areas:</b> Nature conservation; extraction of gravel and sand; active and passive recreation; some attempts at pine establishment. <b>Minor cleared areas:</b> Mining for coal. <span style="float: right;">Some grazing</span>				
<b>SOIL DETERIORATION HAZARD</b> Critical land features, processes, forms	Weakly structured surface soils and slowly permeable subsoils on moderate slopes are prone to sheet and rill erosion. Clay subsoils subject to periodic saturation are prone to landslips.	Very low inherent fertility and high permeability lead to nutrient decline. Steeper slopes with compacted soils are prone to sheet, rill and gully erosion (scouring).	Very low inherent fertility with some leaching of permeable surface soils leads to nutrient decline. Impermeable hardpans prevent vertical drainage leading to seasonal waterlogging.	Low inherent fertility and high permeability lead to nutrient decline. Steeper slopes with weak structured surface soils are prone to sheet erosion.	High seasonal water table leads to waterlogging and soil compaction. Rapid run-off from adjacent hills leads to flooding, siltation and gully erosion.