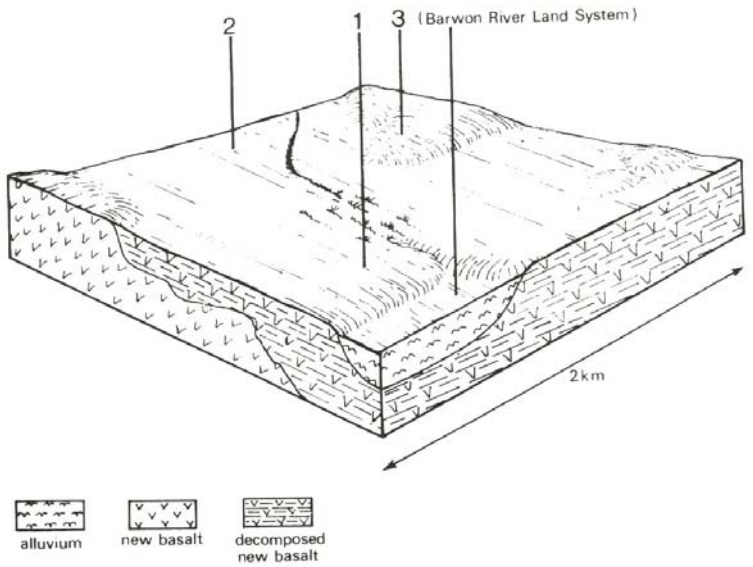
7.40 Winchelsea Land System

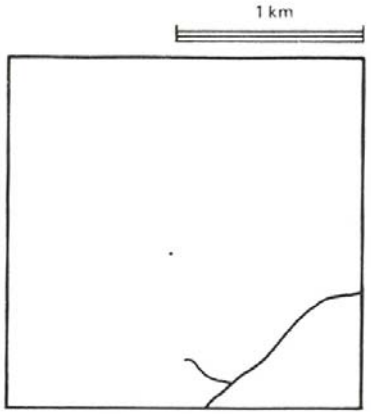
Basaltic plains north of the Barwon River are typical of those found in much of western Victoria. These plains are relatively featureless, although there are occasional outcrops of basalt in the form of stony rises or scarps.

The soils are duplex with heavy clay subsoils. Permeability is very low and waterlogging occurs during the wetter months. Gilgais are a feature of the landscape.

Grazing of sheet and beef cattle is the main land use, and there is some cereal and oilseed cropping. The climate is relatively dry, but suitable for agriculture, and improved pastures have normally been established. Soil salting occurs in many parts of the landscape, particularly close to the Barwon River.

These flat basalt plains contain very few remnants of the organic native vegetation.





WINCHELSEA Area: 80 km^2	Components and its proportion of land system		
	1 15%	2 75%	3 10%
CLIMATE Rainfall, mm Temperature, 0^{o}C Seasonal growth limitations	**Annual: 550 – 600, lowest January (25), highest August (60)** **Annual**: 13, lowest July (8), highest February (19) **Temperature**: less than 10^{o}C (av.) June – August **Precipitation**: less than potential evapotranspiration late September – April		
GEOLOGY Age, lithology	Pleistocene basalt		
TOPOGRAPHY Landscape Elevation, m Local relief, m Drainage pattern Drainage density, km/km^2 Land form Land form element Slope (and range), % Slope shape	Flat to gently undulating plain abutting the north side of the Barwon River 110 – 150 15 Dendritic 0.2 Plain Flat southern lower areas 0 (0-1) Linear	Most flat or undulating slope 1 (0-3) Linear	Rise 2 (0-4) Convex
NATIVE VEGETATION Structure Dominant species	Open woodland E. camaldulensis	Possibly open woodland E. camaldulensis	Possibly open woodland E. camaldulensis
SOIL Parent material Description Surface texture Permeability Depth, m	In-situ deeply weathered basalt; some alluvium Grey calcareous sodic duplex soils, coarse structure Sandy loam Very low 1.8	In-site deeply weathered basalt Grey calcareous sodic duplex soils, coarse structure Clay loam Very low 1.2	Basalt Black calcareous clay soils, uniform texture Clay Very low 0.7
LAND USE	**Cleared areas:** Sheep and beef cattle grazing; cropping		
SOIL DETERIORATION HAZARD Critical land features, processes, forms	Soils of low permeability are prone to waterlogging and to salting where high water tables occur.	Soils of low permeability are prone to waterlogging and to salting where high water tables occur.	Minor hazards