

### 7.37 Thompson Creek Land System

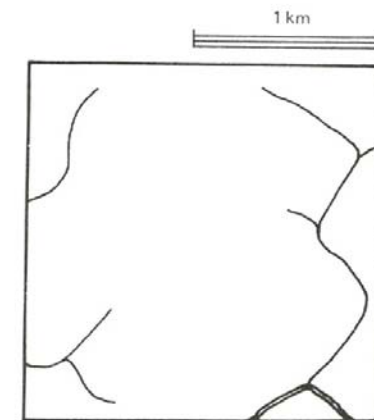
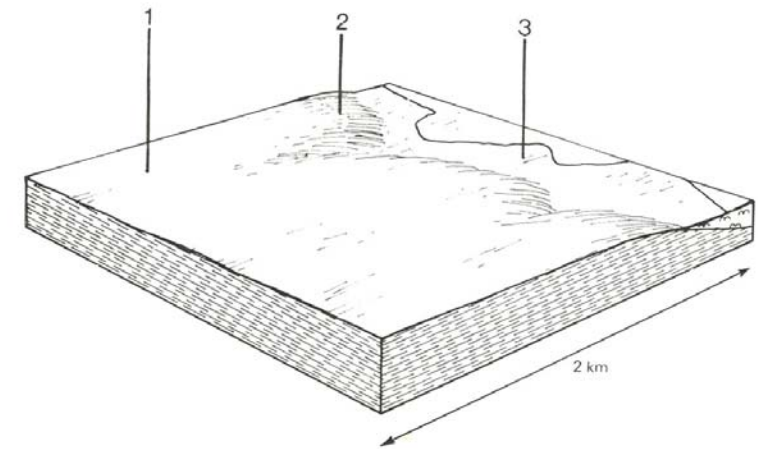
The lower reaches of the Thompson Creek catchment spread out into a wide alluvial plain. The plain appears almost flat, but it slopes towards the sea. The highest inland parts are some 20 m above the present valley floor of Thompson Creek, and some mild dissection into the plain occur along the sides of this valley.

Road reserves and small shelter belts for stock contain the only remnants of the native vegetation. Low woodlands of *Eucalyptus leucoxylon* and *Casuarina stricta* appear to have been common, with *Acacia pycnantha* dominating the understorey. *E. leucoxylon* shows evidence of severe salt pruning several kilometres from the coast. Soils are duplex and sodic with dispersible subsoils.

These plains are used for grazing and cropping. Minor problems are encountered from gully erosion along the margins of Thomson Creek, and soil salting occurs in the lowest areas close to the Connewarre land system.



*These flat plains are used mainly for grazing and cropping*



**THOMPSON CREEK**Area: 29 km<sup>2</sup>

	Component and its proportion of land system		
	1 70%	2 20%	3 10%
<b>CLIMATE</b> Rainfall, mm Temperature, 0°C Seasonal growth limitations	Annual: 600, lowest January (30), highest August (60) Annual: 14, lowest July (9), highest February (19) Temperature: less than 10°C (av.) July Precipitation: less than potential evapotranspiration October – mid April		
<b>GEOLOGY</b> Age, lithology	Deeply weathered Plio-Pleistocene fluvial sand and clay		
<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	Flat to gently undulating plain near the south of Thompson Creek 0 – 50 5 Weak dendritic pattern with some deranged areas 1.2 Plain Middle and upper slope 0 (0-2) Linear		
<b>NATIVE VEGETATION</b> Structure Dominant species	Low woodland <i>E. leucoxylon</i> , <i>Casuarina stricta</i> , <i>E. ovata</i>	Open forest <i>E. leucoxylon</i>	Woodland <i>E. leucoxylon</i> , <i>E. viminalis</i>
<b>SOIL</b> Parent material Description Surface texture Permeability Depth, m	Sandy clay Yellow-brown sodic duplex soils, coarse structure Sandy loam Low >2	Sandy clay Yellow sodic duplex soils Sandy loam Moderate >2	Sand, silt and clay Brown sandy loam soils, uniform texture Sandy loam High >2
<b>LAND USE</b>	Cleared areas: Dairy farming and beef cattle grazing on mainly improved pastures; some cereal cropping		
<b>SOIL DETERIORATION HAZARD</b> Critical land features, processes, forms	Dispersible soils are prone to gully erosion. Sodic subsoils, low permeability and high water tables lead to soil salting.	Sodic subsoils and high water tables lead to soil salting.	Shallow saline water tables lead to soil salting, waterlogging and soil compaction. High discharge rates along watercourses lead to streambank erosion.