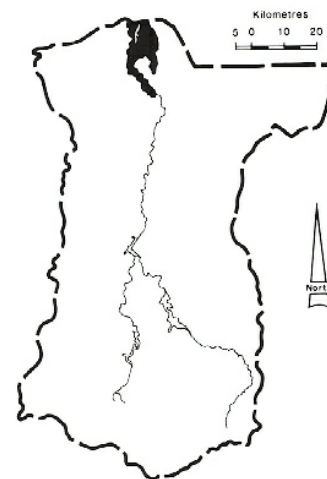


2.4 PIA4 PLAINS – level, ALLUVIAL, type 4

The Loddon River north of Serpentine changes from a single, entrenched watercourse to a multi-channel system with numerous active and relic channels, oxbows, levees and backplains. Map unit PIA4 describes this channelised terrain. This change in river characteristics probably occurs because the Loddon system alters from one of groundwater recharge to one of groundwater discharge at approximately Serpentine, and the river being unable to entrench further – has sought different pathways across the plain. The groundwater recharge is characteristically saline, and is responsible for saline stream flow and salting some areas in this unit. The soils are variable, depending of the history of deposition and erosion of the soil parent material, and range from uniform clays to red duplex soils. The native vegetation of *E. camaldulensis* has been retained along many of the stream channels.



Geology Qs & Qc – Quaternary alluvium

Rainfall 350-450 mm per annum

Slope Average 0%; range 0-2%

Dominant landform element (80%) Plain, drainage depression, levee

Minor landform elements (20%) Prior stream levee, swamp, ox-bow

Soils Dominant: Ug5.2, Ug5.3. Grey or brown cracking clay soils common, especially on the intervening plains between channels and in the shallow depressions and relict stream channels: a gilgaied micro-relief

Dr2. Red duplex soils common on the higher, better drained areas, especially on levees or slight rises in the plain

Minor: Um1.4, Uc1.2. Brown loamy soils of uniform texture along the active river channels as the result of recent stream deposition

Native vegetation *E.camaldulensis*, the dominant tree, lines the banks of the major stream channels, usually in a woodland II or open forest II formation: on intervening plains the vegetation has been largely cleared, although *E.largiflorens* and *E.camaldulensis* commonly grow in the poorer drained areas and *E.microcarpa* on the better-drained plains: specimens of *Casuarina luehmannii* grow on the isolated prior stream levees

Stone-rock outcrop Nil

Pans Nil or not observed

Land use Mainly grazing, with limited cereal-cropping in better-drained areas: the forested banks of the river channels provide wildlife habitat and limited recreational opportunities

Observed land deterioration Salting and minor streambank erosion

Susceptibility to land deterioration

Inundation (moderate to high)

Surface sealing (moderate)

Compaction (low to moderate)

Salting (moderate)

Streambank erosion (low to moderate)



River red gum line the depressions and channels left by the meanderings of the Loddon River north of Serpentine.