9. Norbury Unit

A gently undulating basaltic plain occurs on the far north-east of the study area. The unit is characterised by grey calcareous cracking clays and a gilgaied micro-relief. The high shrink-swell provide difficult conditions for plant growth. *E. camaldulensis* and *E. microcarpa* are found scattered across the plain, which is mostly grazed.

Geology: Quaternary olivine basalt

Slope: Average 1%; range 0-3%, but much steeper on the scarps

Landforms: 75% Plain, flat to gently undulating
25% Rocky rise, drainage depression, scarp, scarp footslope

Soils:
Dominant: Ug5.2, Ug5.4. Grey, or less commonly brown, calcareous cracking clay soils predominate, commonly with gilgaied micro-relief; surface textures from clay on the mounts to clay loams in the hollows where fine surface rootline mottling is apparent; subsoils, usually calcareous, have a coarse angular blocky structure: the soils seasonally shrink and swell causing waterlogging problems in winter and physical disruption to plant roots in summer: soil depth is variable, with rock exposure common in the shallower soils.

Minor: Gn3.12, Gn4.1. Shallow, stony, reddish gradational soils on the scarps and occasional rocky rises in the plain, typically well structured and well drained.

Gn4.4. Dark-coloured gradational soils in some drainage depressions.

Uf6.3. Shallow, dark, well-structured uniform clay soils occasionally occur on the scarps.

See appendix 17 for a typical soil profile description from this unit.

Stone rock outcrop: Generally less than 1%, although significant rock outcrop does occur on the scarp.

Pans: Nil

Land use: Mainly grazing on native and introduced pastures, with limited cropping on the rock-free parts of the plain.

Observed land deterioration: Minor sheet erosion on the steeper scarps; seasonal waterlogging, although not strictly a form of deterioration, occurs on parts of the plain and limits agricultural production.

Susceptibility to land degradation:
Sheet erosion (moderate – scarp)
Gully erosion (low)
Waterlogging (moderate – plain)
Compaction (low to moderate)

Land capability classification:
Generally, land capability class 3 with drainage and soil type as the determinant factors (see Table 1). However, on the scarps soil depth and slope become the determinant factors.