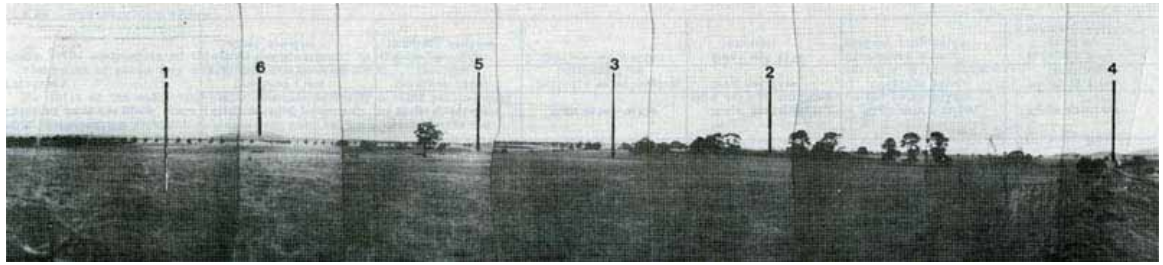
6.17 Monegeeta Land System

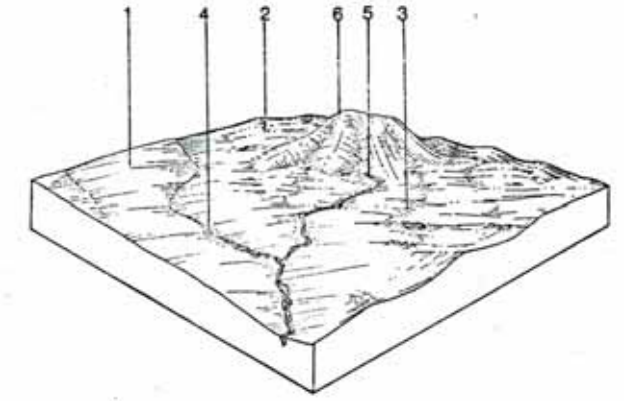


This is the largest land system within the survey area, occupying 13.8%; or 353.8 km^2. There is one main area and four smaller, separate areas all in the north-west.

The topography is gently undulating with the plains increasing in altitude towards the north. The soils are predominantly mottled yellow, grey sodic duplex though friable black clays self-mulching) occur in the swales and on some of the scarps, and red gradational coils where the soil is shallow.

Buckshot is common in the A2 horizon of the duplex soils and may be related to the large concretions of iron found on the surface of the Romsey land system.

Most of the native vegetation of the area has been cleared.



Schematic Block Diagram

Drainage Pattern

COMPONENT Proportion %	1 65	2 5	3 5	4 10	5 10	6 5
CLIMATE Rainfall (av.) Temperature (av.) Seasonal growth limitations	Annual: 660-685 mm (monthly range: October 70 mm – January 45 mm) Annual: 14^0C (monthly range: January 20^0C – July 9^0C) Temperature: less than 10^0C January – August Precipitation: less than evapotranspiration November - March					
GEOLOGY Age, rock	Pleistocene basalt					
TOPOGRAPHY Landscape Elevation (range) m Local relief (av.) m Drainage pattern Drainage density km/km^2	Gently undulating plains with volcanic cones 150-300 7 Dendritic 0.7					
Land form	Long gentle slope	Stony plain	Depression	Steep slope, sometimes rocky	Drainage line	Cone
Slope (av.) %, slope shape	3; Straight	2; Convex	2; Straight	17; Convex	2; Straight	27; Convex
NATIVE VEGETATION Structure Dominant species	Open woodland *E. camaldulensis, A. melanoxylon, Acacia dealbata, Casaurina stricta*				*E. viminalis* *E. ovata*	
SOIL Parent Material Description	Mottled yellow, grey sodic duplex soils, coarse structure	Shallow red stony gradational soils	Black clay soils, uniform texture, coarse structure. Mottled brown, calcareous sodic gradational soils, coarse structure	Shallow brown duplex or gradational soils	Black clay soils, uniform texture, coarse structure	Variable. Shallow stony red gradational soils
Factual Key	Db 2.32	Gn 3.11	Ug 5.12, Gn 3.43	Db, Gn	Ug 5.12	Gn 4.11
Surface Texture	Clay loam	Clay loam	Clay	Clay loam	Clay	Clay loam
Permeability	Moderate-Low	High	Moderate-Low	High	Low	High
Depth (av.) m	1.5	0.5	1.5	1.0	1.5	1.0
LAND USE	Grazing, occasional cropping (cereal)					
SOIL DETERIORATION HAZARD Critical land features	Hard setting surfaces, slowly permeable subsoils	Slope gradient	High watertable	Slope gradient, hard setting surfaces	High watertable, low permeability	Slope gradient
Processes	Overland flow, periodic waterlogging	Overland flow, leaching	Periodic waterlogging, overland flow	Overland flow	Overland flow, periodic waterlogging	Overland flow, leaching
Forms	Surface compaction, sheet erosion	Sheet erosion, nutrient decline	Surface compaction	Sheet and rill erosion	Streambank erosion, surface compaction	Rill and sheet erosion, nutrient decline