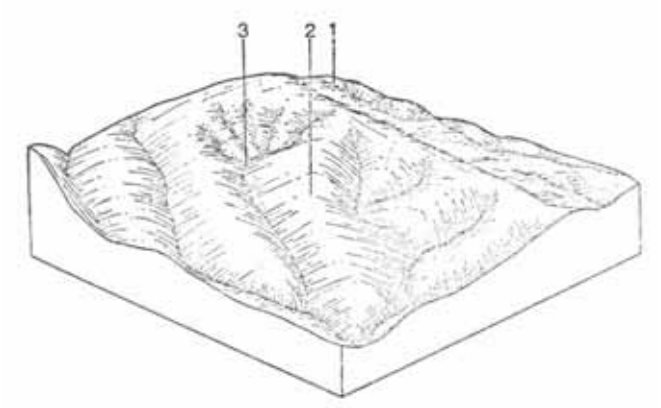
6.9 Humevale Land System

This land system of 117.1 1km^2 is situated in the north-north-east of the survey area and represents about 4.5% *of* the survey area.

It is characterised by long ridges and steep slopes. Due to the steepness, most of the area is still covered with open forests.

The shallow stony gradational soils of the crests and exposed slopes have a light textured, structureless topsoil which grades into a red structured clay with depth. The red duplex soils of the sheltered slopes have a similar topsoil but it overlies the structured clay subsoil which is often mottled.

Sheet and tunnel erosion are occurring in this land system, the tunnel erosion in cleared areas only. Because f the steep slopes, dispersibility of the clay subsoils and the increased erosion hazard in cleared areas, the land should remain forested.



Schematic Block Diagram

Drainage Pattern

COMPONENT	1	2	3
Proportion %	50	40	10
CLIMATE Rainfall (av.) Temperature (av.) Seasonal growth limitations	Annual: 750-890 mm (monthly range: October 80 mm – January 55 mm) Annual: 11^{0}C (monthly range: February 18^{0}C – July 6^{0}C) Temperature: less than 10^{0}C May – September Precipitation: less than potential evapotranspiration December – March		
GEOLOGY Age, rock	Silurian siltstone and sandstone		
TOPOGRAPHY Landscape Elevation (range) m Local relief (av.) m Drainage pattern Drainage density km/km^2	Long ridges 200-500 200 Dendritic 5.0		
Land form	Crest and slope of westerly and northerly aspect	Spur and side slope of easterly and southerly aspect	Drainage line
Slope (av.) %, slope shape	18; Convex	27; Straight	5; Concave
NATIVE VEGETATION Structure	Open forest	Open forest	
Dominant species	E, macrorhyncha, E. goniocalyx	E. obliqua, E. radiata, E. cypellocarpa	E. obliqua
SOIL Parent Material	In situ weathered rock		
Description	Shallow stony gradational soils	Yellow gradational soils. Reddish duplex soils	Dark brown gradational soils
Factual Key	Gn 2	Gn 2, Dy 2.31	Gn 3
Surface Texture	Gravelly loam	Gravelly loam	Clay loam
Permeability	High	High	Moderate
Depth (av.) m	0.5	1.0	2.0
LAND USE	Forestry, recreation, occasional grazing		
SOIL DETERIORATION HAZARD Critical land features	Slope gradient	Slope gradient	Moderate permeability, dispersibility, seasonal high watertable
Processes	Overland flow, leaching	Overland flow, leaching	Overland flow, subsurface flow, periodic waterlogging
Forms	Sheet and rill erosion, nutrient decline	Sheet and rill erosion, nutrient decline	Gully erosion, surface compaction