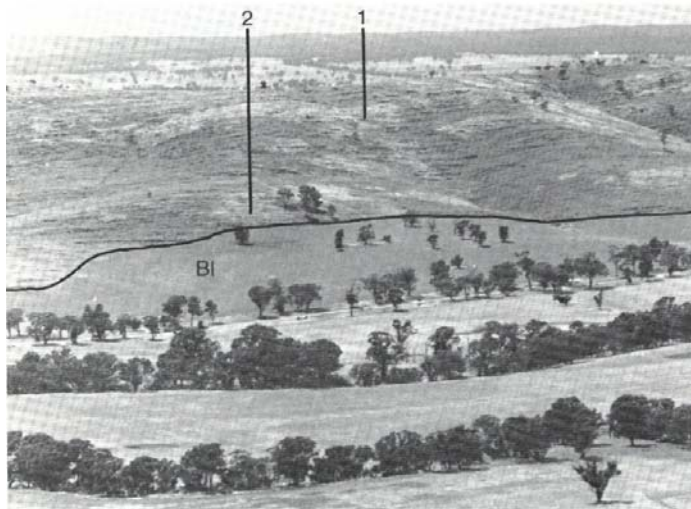
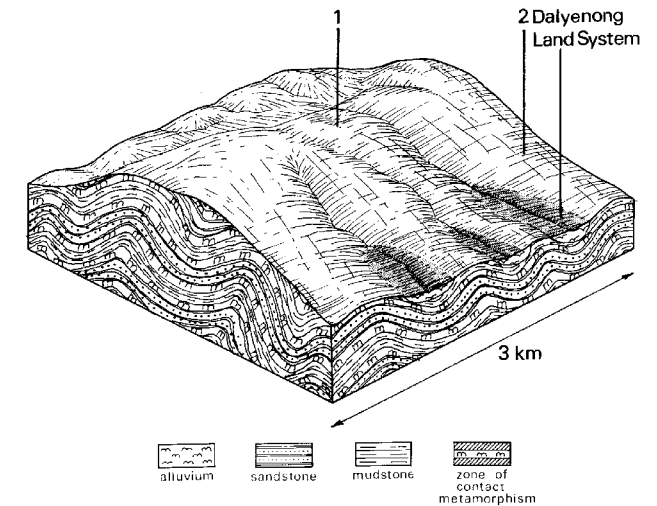


7.21 Spring Hill land system

Steep metamorphosed hills with outcropping rocks between Archdale and Gowar originally supported open forests dominated by *Eucalyptus polyanthemos*.

Most of the timber has been replaced by native pastures. The low water-holding capacity of the shallow stony loams and the shallow rooting systems of the native pastures reduce the growing season to a few months of the year and the total productivity is low.

Steepness and rock outcrops make access difficult. Overgrazing and trampling have promoted high run-off, leading to sheet erosion on the slopes and gully erosion in the drainage lines of adjacent land systems. Increased percolation of water and salts to the groundwaters since settlement has resulted in rising water tables and increasing incidence of soil salting in adjacent areas.



The outcropping rock strata on these steep cleared hills indicate the shallowness of the soil.



Native grasses do not provide the stony loam soils with adequate protection against intense summer storms.

SPRING HILL LAND SYSTEM Area108sq.km

CLIMATE Rainfall (mm) Temperature (°C) Seasonal growth limitations	Annual, 400-500; lowest January (20), highest June (59) Annual, 15; lowest July (8), highest February (21) Temperature: less than 10 ⁰ C (av.) June-August Rainfall: less than potential evapotranspiration September-April	
GEOLOGY Age, lithology	Ordovician sandstone and mudstone	
PHYSIOGRAPHY Elevation range (m) Relative relief (m) Drainage pattern Drainage density (km/ sq. km) Land form	200-400 40 Dendritic 0.6 Hill (metamorphic aureole)	
LAND COMPONENT Percentage of land system	1 70%	2 30%
PHYSIOGRAPHY Position on land form Slope (typical) and range(%) Slope shape	Upper slope 20, 10-25 Convex	Lower slope 8,5-10 Convex
NATIVE VEGETATION Structure Dominant species	Open forest <i>E. Polyanthemos</i> <i>E. goniocalyx</i> <i>E. microcarpa</i>	Open forest <i>E. microcarpa</i> <i>E. leucoxyton</i>
SOIL Parent material Description Classification Surface texture Surface consistence (dry) Depth (m) Nutrient status Available soil water capacity Perviousness to water Drainage Exposed stone Dispersibility Slaking tendency	Sandstone and mudstone Shallow stony uniform loam soils Um 5.21 – 3/1/010 Loam Soft 0-0.1 Very low throughout Very low Rapid Excessively drained Abundant (rock) Nil Nil	Sandstone and mudstone Shallow red gradational soils Gn 3.14 – 3/1/010 Fine sandy loam Slightly hard 01-0.5 Low throughout Low Moderate Somewhat excessively drained Abundant (rock) Low Low
PRESENT LAND USE	Grazing	Grazing

Land deterioration hazards - Spring Hill land system

Disturbance	Component	Affected process and trend	Primary resultant deterioration		Primary resultant off-site process
			Form	Susceptibility	
Altered vegetation -reduced leaf area, rooting depth, perenniality	1,2	Reduced transpiration, increased leaching	Nutrient decline	Low	Increased movement of water and salts to groundwaters
Reduced soil surface cover	1,2	Increased soil detachment	Sheet erosion	High	Increased flash flows and sediment loads
Increased trafficking, trampling	1,2	Increased soil compaction	Structure decline	Low	Increased flash flows and sediment loads



Saline seepage areas have destroyed the vegetation and increased the rate of soil erosion.



Sheet erosion is prevalent on the steep cleared slopes.