

2.40 L/HrS LOW HILLS to HILLS – rolling, SEDIMENTARY

The unit describes a number of separate ridges on sedimentary rocks which occur throughout the study area. Most of the ridges have resulted from contact metamorphism adjacent to the granitic plutons. They may almost encircle the granitic plutons – for example, around Murphys Creek – or may only occur along a portion of the granite, such as the Mount Brenanah ridgeline to the south-west of Mount Korong. These metamorphosed ridges are frequently cleared, although poor-quality native forest is sometimes retained, most notably on the Bealiba Range.

The map unit is characteristically steep and rocky and this may make access difficult. Agriculture productivity is low due to the excessive site drainage, surface rock and stone and the shallow soils. Sheet erosion is common where the native vegetation had been cleared. By virtue of its shallow stony soils and fractured bedrock, the unit has a high permeability to water, and such vegetation clearance has allowed increased quantities of water to infiltrate into the groundwater systems, upsetting the hydrological balance and contributing to salting in adjacent areas.



Geology ms, Ol-m (metamorphosed) – variously metamorphosed Ordovician sedimentary rocks, including gneiss and schist

Rainfall 400-750 mm per annum

Slope Average 10-25%; range 3-40%

Dominant landform element (75%) Sharp crest and steep slope, often rocky

Minor landform elements (25%) Gentle lower slope, minor drainage depression, saddle broad crest

Soils Dominant: Um5.51. Uniform stony loam soils dominating the steeper slopes and sharper crests are shallow, contain copious quantities of fragmented stone, and have loamy textures; when undisturbed they have a thin grey-brown A₁ horizon, but rapidly lose it after clearing; they support low-productivity pastures after clearing due to their low water-holding capacity, low natural fertility and the excessive site drainage

Gn3.14, Gn3.74. Red or yellow gradational soils on the broader crests and gentler slopes are typically shallow to moderately deep, contain fragments of stone throughout, and are weakly structured; they exhibit a pale A₂ horizon below the grey-brown loamy A₁, and clayey subsoils form in pockets in the fractured sedimentary rocks

Sub-dominant: Dr2.22. Red duplex soils frequently occur on the gentle slopes, especially the lower ones; stone fragments more common in the A horizon as the result of soil creep from the adjacent slopes; A₂ horizon is usually present below the grey-brown loamy A₁; the red clayey subsoils are weakly to moderately structured and usually neutral

Native vegetation The original native forests have been cleared from many of the ridges: common remaining species include *E. microcarpa*, *E. macrorrhyncha* and in the north-west *E. leucoxylo*; associated species include *E. polyanthemos*, *E. goniocalyx*, *E. melliodora* (lower slopes) and *E. albens* (Big Hill area); *E. obliqua* and *E. rubida* occur on the slopes near Ben Major west of Lexton, and *E. camaldulensis* is uncommon species in the larger depressions; the existing forests generally have an open forest I to II structure

Stone-rock outcrop Average 10%; range 0-30%

Pans Nil or not observed

Land use The cleared areas are used for grazing, but the shallow stony soils frequently inhibit pasture improvement and native pastures of low productivity prevail; the remaining native forests supply very limited quantities of timber products

Observed land deterioration Overgrazing and trampling of the cleared areas have promoted high runoff, leading to sheet erosion on the slopes and gully erosion in the drainage lines of adjacent map units; and clearing of the native vegetation since the mobilisation of soluble salts to groundwater systems, resulting in an increased incidence of salting in adjacent low-lying areas

Susceptibility to land deterioration

On-site Sheet erosion (moderate to high)
Wind erosion (low)

Off-site gully erosion (moderate to high)
Salting (moderate to high)



Mount Brenanah range south of Wedderburn – a steep and mostly cleared metamorphic aureole ridge.