

14. Entrenched Valleys

Stream dissection of the extensive undulating basalt plains has resulted in several steep-sided stream valleys within and bordering the basalt flows. The valleys have steep upper slopes just below the valley rim, with gentler slopes of basaltic rubble (and in some instances exposed underlying Ordovician bedrock) on the lower slopes. Narrow alluvial flats run alongside the streams.

The soils are generally shallow and variable, and land use is limited by the steep, rocky and generally inaccessible nature of the unit.

Geology: Quaternary basalt: and Ordovician sandstones, shales and slates.

Slope: Average 30%; range 10-100%, occasionally precipitous.

Landforms: 80% Scarp, scarp footslopes
20% Bench, cliff, alluvial flat, stream channel

Soils:

Dd2.81, Um, Uf6.3, Gn3.1, Dy3.41. Shallow stony red or brown soils predominate: they are frequently reddish brown structured uniform loams on the steeper slopes, containing abundant stone, but better-developed and deeper red-reddish brown gradational soils on the gentler slopes; shallow, dark, well-structured uniform clay soils occur in the north, and deeper alluvial soils on the occasional alluvial flats. Yellow and dark duplex soils with thick loamy A horizons, often with thick pale A₂ horizons over clay B horizons, also occur on the deeper alluvial flats.

See appendix 23 for a typical soil profile description from this unit.

Stone rock outcrop: Average 20%, but extremely variable.

Pans: Nil

Land use: The steep slopes preclude most land uses except low intensity grazing; the occasional narrow alluvial flats have good cropping soils, but are only used where access can be gained; weeds and vermin, particularly thistles and rabbits, are almost impossible to eradicate.

Observed land deterioration: Minor sheet erosion and landslipping.

Susceptibility to land deterioration:

Sheet erosion (on steep slopes) moderate to high

Slope failure (on steep slopes) moderate.

Land capability classification:

Generally, land capability classes 3 and 4 with slope, aspect, soil type, soil depth, drainage and surface rock as the determinant factors (see Table 1). The class 4 land is found on the steep slopes where shallow, rocky uniform soils predominate. The class 3 soils are found on the gentler slopes and on the flats.