

# MBE Mount Beevor Land System

## Bremer Escarpment

**Area:** 21.2 km<sup>2</sup>

**Annual rainfall:** 410 – 750 mm average

**Geology:** The land is underlain by metasandstones, schists and quartzites of the Tappanappa and Backstairs Passage Formations. These are weakly calcified in places.

**Topography:** The System includes the moderately steep to steep slopes of the Bremer Escarpment. Slopes range from 10% to 100% on escarpment slopes, to almost flat on crests. Rock outcrop is extensive. Well defined westward flowing water courses dissect the slopes every 100 to 300 metres. These are often eroded. There are occasional landslips on steeper slopes in the north.

**Elevation:** 110 m in the south to 478 m in the north

**Relief:** 20 m in the south to 100 m in the north

**Soils:** The soils are typically shallow to moderately deep, coarse textured and stony over basement rock. Clayey subsoils are common, particularly on gentler slopes. There are minor occurrences of calcareous soils and sandy surfaced soils.

### Main soils

**L1a** Shallow stony loamy sand

**L1b** Shallow sandy loam over calcified rock

**K3/D1** Sandy loam over red clay

### Minor soils

**A2** Calcareous loam

**G1** Sand over sandy clay loam

**Main features:** The Mount Beevor Land System includes the moderate to steep slopes of the Bremer Escarpment. The land is characterized by shallow stony soils and extensive rock outcrop. Only minor flat crests and gentler lower slopes are arable. The bulk of the land is rough grazing country. Apart from the shallow rocky soil limitations, westerly exposure restricts pasture productivity. Grazing management is needed to prevent expansion of watercourse erosion and landslips which have occurred in the past.

**Soil Landscape Unit summary:** 9 Soil Landscape Units (SLUs) mapped in the Mount Beevor Land System:

| SLU | % of area | Main features #  |
|-----|-----------|--|
| AKB | 1.1       | Escarpment slopes and crests formed on metasandstones, schists and quartzites. There is extensive surface stone (20-50%) and 10-20% rock outcrop |
| AKC | 6.6       |  |
| AKI | 33.1      | <b>AKB</b> Lower slopes of 10-20%.   |
| AKY | 12.1      | <b>AKC</b> Moderately inclined slopes with relief of 20-60 m and gradients of 10-30%.  |
| AKe | 40.1      | <b>AKI</b> Moderately inclined slopes; relief of 20-60 m, gradients 10-30%, and eroded watercourses.   |
|     |           | <b>AKY</b> Rounded crests with slopes to 10%.  |
|     |           | <b>AKe</b> Steep slopes with relief of 60-100 m, gradients of 30-100% and sporadic landslips.  |
|     |           | Main soils: <u>shallow stony loamy sand - L1a</u> (E), <u>shallow sandy loam over calcified rock - L1b</u> (C) and                               |



|            |            |  |
|------------|------------|--|
|            |            | <u>sandy loam over clay</u> - <b>K3/D1</b> (E). This land is too rocky and generally too steep for any cultivated agricultural uses. Rough grazing is the most extensive use, but the westerly exposure and generally shallow soils limit productive potential.  |
| DaD<br>DaI | 0.3<br>1.5 | Moderate slopes of 10-15%, formed on metasandstones and schists. There is sporadic rock outcrop and up to 10% surface stone.<br><b>DaD</b> Slopes without watercourses.<br><b>DaI</b> Slopes with eroded watercourses.<br>Main soils: <u>sandy loam over clay</u> - <b>K3/D1</b> (V), <u>shallow sandy loam over calcified rock</u> - <b>L1b</b> (L) and <u>calcareous loam</u> - <b>A2</b> (M). These slopes with deeper soils and gentler slopes are semi arable although erosion potential is high. |
| DsI        | 3.2        | Slopes of 4-8% underlain by metasandstones with eroded watercourses.<br>Main soils: <u>sand over sandy clay loam</u> - <b>G1</b> (V) and <u>shallow sandy loam over calcified rock</u> - <b>L1b</b> (L). These sandy soils are infertile and erodible, to both wind and water. Productive potential low.   |
| EaD        | 2.0        | Moderate rocky slopes of 10-20% with up to 20% rocky outcrop and abundant surface stone.<br>Main soils: <u>shallow stony loamy sand</u> - <b>L1a</b> (E), <u>shallow sandy loam over calcified rock</u> - <b>L1b</b> (C) and <u>sandy loam over clay</u> - <b>K3/D1</b> (E). These slopes are semi arable with moderate slopes and significant rock outcrop restricting production opportunities.  |

# PROPORTION codes assigned to soils within Soil Landscape Units (SLU):

|  |                                       |
|--|---------------------------------------|
| (D) Dominant in extent (>90% of SLU)         | (C) Common in extent (20–30% of SLU)  |
| (V) Very extensive in extent (60–90% of SLU) | (L) Limited in extent (10–20% of SLU) |
| (E) Extensive in extent (30–60% of SLU)      | (M) Minor in extent (<10% of SLU)     |

### Detailed soil profile descriptions:

#### **L1a** Shallow stony loamy sand (Lithic, Leptic Rudosol)

Medium thickness reddish brown massive loamy sand to sandy loam with abundant rock fragments, overlying hard metamorphosed sandstone.

#### **L1b** Shallow sandy loam over calcified rock (Calcareous, Paralithic, Leptic Tenosol)

Medium to thick brown loamy sand to sandy loam with rock fragments throughout, overlying weakly calcified schist or metasandstone, usually within 50 cm, but often deeper on softer schistose rocks.

#### **K3/D1** Sandy loam over red clay (Eutrophic / Calcic, Red / Brown Chromosol)

Medium thickness stony sandy loam, overlying a red or brown well structured clay grading to weathering sandy schist or metasandstone, sometimes with soft carbonates in fractures.

#### **A2** Calcareous loam (Paralithic, Calcic Calcarosol)

Medium thickness dark brown calcareous loamy sand to loam grading to a dark brown to grey brown, massive highly calcareous sandy clay loam to clay loam with variable content of carbonate nodules, over a pale brown soft carbonate layer with clay loam texture. Very soft highly calcareous weathered mica schist occurs at about 100 cm.

#### **G1** Sand over sandy clay loam (Hypercalcic, Red Chromosol)

Very thick reddish brown sand to loamy sand, overlying a thin reddish brown massive sandy clay loam, highly calcareous at the base, grading to weathering metamorphosed sandstone at about 100 cm.

**Further information:** [DEWNR Soil and Land Program](#)

