



General Description:

These steep forested slopes occur on the northern side of Mount Macedon. The red, well-structured gradational soils are variable in depth but extremely permeable. Bushfires are common and when unprotected topsoils and steep slopes are subjected to heavy rain, sheet/rill erosion can be severe.

Site characteristics: Site No. 13

| Parent material | | Depth seasonal | > 5.0 m |
|-----------------|-------------------|-----------------------|-----------------|
| Age: | Devonian | watertable: | |
| Lithology: | Rhyodacite | | |
| Landform | | Potential recharge to | High |
| Pattern: | Rolling mountains | groundwater: | |
| Element: | Steep slope | | |
| Slope | | Flooding risk: | Nil |
| common: | 40% | | |
| range: | 32-50% | | |
| Rock outcrop: | 5% | Drainage: | Rapidly drained |
| _ | | Depth to hardrock: | 1.0 – 1.5 m |
| | | Proportion of Shire: | 1.5% |

Native vegetation: Messmate, Narrow-leaf Peppermint, Alpine Ash, Manna Gum

Present land use: Forestry (major), recreation, low density housing

| Land | Water erosion | | Wind | Salting | Acidification |
|----------------|---------------|----------|----------|----------|---------------|
| degradation: | Sheet/rill | Gully | | | |
| Susceptibility | Moderate | Very low | Moderate | Very low | Moderate |
| Incidence | Low | Nil | Nil | Nil | Low |

Soil profile characteristics:

| Permeability (measured - average, range): | - |
|---|----------------|
| (estimated): | Very rapid |
| Available water capacity: | 250 mm H₂O |
| Linear Shrinkage (B horizon): | Low (estimate) |

Map Unit Symbol: Drb

Soil profile description:

A 0-13 cm Very dark brown (10YR 2/2) loam, weak subangular blocky structure 5 mm,

rough fabric, loose consistence, pH 5.4. Gradual transition to

B₂₁ 13-92 cm Very dark brown (10YR 2/2) light clay loam, strong angular blocky structure, 8

mm smooth fabric, moderately weak consistence, few parent material

cobbles, pH 5.1. Distinct transition to

B₂₂ 92-150+ cm Strong brown (7.5YR 4/6) silty clay loam, moderate to subangular blocky

structure 15 mm, smooth fabric moderately weak consistence, few parent

material cobbles, pH 7.0

Soil classification:

Factual Key (Northcote): Gn3.22

Australian Soil Classification: Haplic, Dystrophic, Black, Dermosol, very deep, medium, loamy,

non-gravelly

Unified Soil Group: NA

Interpretation of soil analyses*

| Horizon | рН | Gravel | E.C. | Nutrient | Р | K | Al | Org. matter | Dispersibility |
|-----------------|-------|--------|------|----------|---|---|----|----------------|----------------|
| | | | | status | | | | matter | |
| Α | 5.4** | 1 | VL | L | D | S | T | Н | L |
| B ₂₁ | 5.1* | 18 | VL | VL | D | S | Т | M | L |
| B ₂₂ | 5.5** | 7 | VL | VL | D | S | Т | L | L |

 VL : Very Low
 L : Low
 M : Moderate
 H: High
 VH : Very High

 D: Deficient
 S: Satisfactory
 T: Toxic
 ** Acid
 NA : Not available

Land capability assessment

| Land use | Class | Major limiting feature (s) |
|---|--|---|
| Agriculture (CTS values) | C ₃ T ₅ S ₅ | Very steep slopes, very high susceptibility to sheet/rill erosion |
| Effluent disposal (septic tanks) | 5 | Steep slopes |
| Farm dams (earthen) | 5 | Steep slopes, excessive permeability, slope instability |
| Building foundations * slab * stumps/footings | 5 4 | Steep slopes, high risk of slope failure Moderately steep slopes, high risk of slope failure |