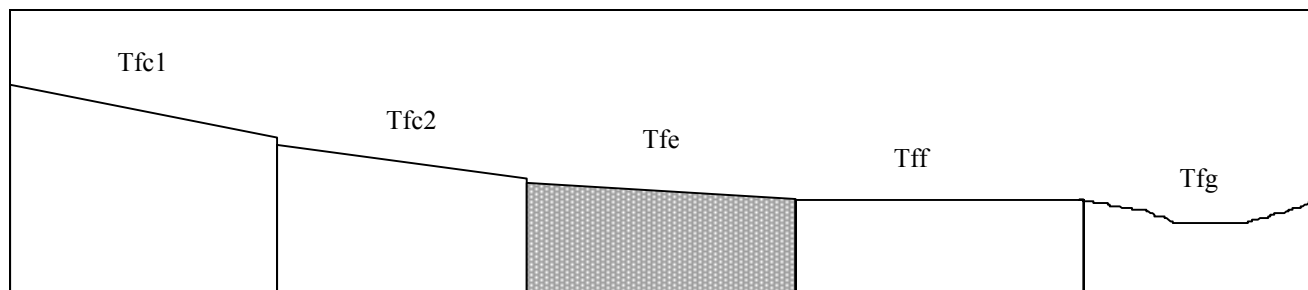


| | |
|---|------------------------------|
| Land Unit: Tertiary fan, gentle slopes | Land Unit symbol: Tfe |
| | % of study area: 2.7 |



General Description:

As the slope decreases on these colluvial outwash fans, the proportion of fine sand and silt in the topsoil increases. In a dry condition the deep topsoils form a hard compact layer but when saturated with water, they become an unstable mass highly susceptible to erosion and movement downslope. The low fertility, low pH and toxic levels of aluminium limit agricultural production, but are characteristic of soils in this area derived from colluvial material.

Site characteristics:

Site No. 87 (81, 90)

| | | | |
|--------------------|---|------------------------------------|-------------------------|
| Parent material | | Depth to seasonal watertable: | > 2 m |
| Age: | Tertiary | Potential recharge to groundwater: | Low |
| Lithology: | Colluvium | Flooding risk: | Nil |
| Landform | | Drainage: | Moderately well drained |
| Pattern: | Undulating rises | Depth to hardrock: | 2 m |
| Element: | Midslopes | Rock outcrop: | 0% |
| Slope | | Annual rainfall: | 940 mm |
| Common: | 5% | | |
| Range: | 3 - 10 % | | |
| Native vegetation: | Broad-leaf and Narrow-leaf Peppermint, Blackwood, Silver Wattle, Burgan | | |
| Present land use: | Cleared; native and improved pastures for sheep and cattle production | | |

Land degradation:

| Degradation process | Water erosion | | Wind erosion | Salting | Acidification |
|---------------------|---------------|----------|--------------|---------|---------------|
| | Sheet/rill | Gully | | | |
| Susceptibility | High | Moderate | Low | Low | High |
| Incidence | Low | Low | Nil | Nil | Moderate |

Soil profile characteristics:

| | | |
|-------------------------------|------------------------------|-------------------------|
| Permeability | (measured - average, range): | 300 (200 - 550) mm/day |
| | (estimated): | - |
| Available water capacity: | | 280 mm H ₂ O |
| Linear Shrinkage (B horizon): | | 14 |

Soil profile description:**Land Unit symbol:** Tfe

| | |
|------------------|--|
| A11 0 - 8 cm | Very dark greyish brown (10YR3/2) loam fine sandy, weak subangular blocky structure, peds 7 mm, rough fabric, very weak consistence - moist, high organic matter, pH 5.6. Abrupt transition to: |
| A12 8 - 20 cm | Yellowish brown (10YR5/4) silty loam, apedal massive (structure), earthy fabric, very weak consistence - moist, low organic matter, pH 5.7. Clear transition to: |
| A2e 20 - 74 cm | Light yellowish brown (10YR6/4) fine sandy loam, conspicuously bleached (10YR8/2 - dry), apedal massive (structure), earthy fabric, pH 5.4. Clear transition to: |
| B21t 74 - 112 cm | Yellowish brown (10YR5/8) medium heavy clay, weak subangular blocky structure, peds 15 mm, smooth fabric, moderately weak consistence - moist, very few ironstone gravel fragments, pH 5.4. Gradual transition to: |
| B22 112 - 180 cm | Light yellowish brown (10YR6/4) medium clay, many coarse distinct red-brown mottles, medium angular blocky structure, peds 30 mm, smooth fabric, moderately firm consistence - moist, few coarse sandstone gravel fragments, pH 5.3. |

Soil classification:

Factual Key (Northcote, 1979):

Dy 2.41 - 3/0/074

Australian Soil Classification (Isbell, 1992):

Bleached - Mottled, Magnesic, Brown, Kurosol; thin, non-gravelly, loamy/clayey, very deep

Unified Soil Group:

CL

Interpretation of soil analyses: (see Appendix 2 for analytical results)

| Horizon | pH | Gravel % | E.C. (salts) | Nutrient status | P | K | Al | Organic matter | Dispersibility |
|---------|--------|----------|--------------|-----------------|---|---|----|----------------|----------------|
| A11 | 5.6 | < 1 | VL | VL | D | D | T | H | L |
| A12 | 5.7 | < 1 | VL | VL | D | D | T | L | H |
| A2e | 5.4 ** | < 1 | VL | VL | D | D | T | VL | M |
| B21t | 5.4 ** | < 1 | VL | VL | D | D | T | VL | L |
| B22 | 5.4 ** | 5 | VL | VL | D | D | T | VL | L |

VL: Very Low

L: Low

M: Moderate

H: High

VH: Very High

D: Deficient

S: Satisfactory

T: Toxic

NA: Not Available

** Acidic

Land capability ratings and limitations for specific land uses:

| Land use | Rating | Major limiting factor(s) |
|----------------------------------|--|---|
| Agriculture | C ₃ T ₃ S ₃ | Nil |
| Building foundations | | |
| - slab | 3 | Nil |
| - stumps/footings | 3 | Nil |
| Effluent disposal (septic tanks) | 3 | Nil |
| Farm dams | 4 | High permeability, high dispersibility of subsoil |
| Residential - rural | 4 | Low capability for farm dams |
| - urban | 3 | Nil |
| Scenic value | 3 | Low Scenic Quality but close proximity to major highway |
| Secondary roads | 3 | Nil |