

ja

JAMBEROO

Residual



Landscape—rolling hills with broad crests and ridges. Relief 100–200 m on Saddleback Latite. Slopes <25%. Extensively cleared with scattered stands of closed-forest.

Soils—deep (>150 cm) Krasnozems (Gn4.11) occur throughout this landscape with Structured Loams (Um6) localised on Saddleback Mountain Agglomerate.

Limitations—run-on, low wet bearing strength (topsoil), strongly acid.

LOCATION

Rolling hills with broad crests and ridges on latite in the Jamberoo Valley on the upper reaches of the Illawarra Escarpment. Examples include upper reaches of Saddleback Road and Fountaindale Road.

LANDSCAPE

Geology

Saddleback Latite Member—black porphyritic mafic latite with localised outcrops of Bong Bong Basalt.

Associated Geology

Saddleback Mountain Agglomerate—yellowish green to grey volcanic agglomerate.

Topography

Rolling hills. Relief 100–200 m. Slope gradients generally <25%. Broad crests and ridges with steep (>30%) upper and midslopes associated with edge of basalt flows. Scattered rock outcrops of latite boulders and minor sandstone outcrops on upper slopes. Narrow drainage lines. Mass movement is confined to steep slopes.

Vegetation

Extensively cleared with scattered stands of closed-forest throughout the landscape. Common species include cabbage tree palm (*Livistona australis*), red cedar (*Toona australis*), illawarra flame tree (*Brachychiton acerifolium*), sassafras (*Doryphora sassafras*), brush cherry (*Syzygium australe*), bastard rosewood (*Synoum glandulosum*), wilkiea (*Wilkiea huegeliana*), brush muttonwood (*Rapanea howittiana*), muttonwood (*Rapanea variabilis*), flintwood (*Scolopia braunii*), moreton bay fig (*Ficus macrophylla*), deciduous fig (*Ficus superba*), yellowwood (*Sarcomelicope simplicifolia*). Decorative paperbark (*Melaleuca decora*) and forest red gum (*Eucalyptus tereticornis*) occur in poorly drained areas.

Land Use

Dairying, cattle grazing, horse farms and hobby farms on improved pasture.

Existing Erosion

Evidence of mass movement and localised stream bank erosion on steeper slopes.

Included Soil Landscapes

Small areas of Fountaindale (**fo**) and Bombo (**bo**) have been included throughout.

SOILS

Dominant Soil Materials

ja1—Friable reddish brown sandy clay loam (topsoil)

Colour reddish brown (5YR 4/6, 5YR 4/8)
Texture sandy clay loam
Structure weak to moderately pedal, <2 mm crumb peds
Fabric sandy to rough-faced, porous
pH 4.5–5.5
Stones nil

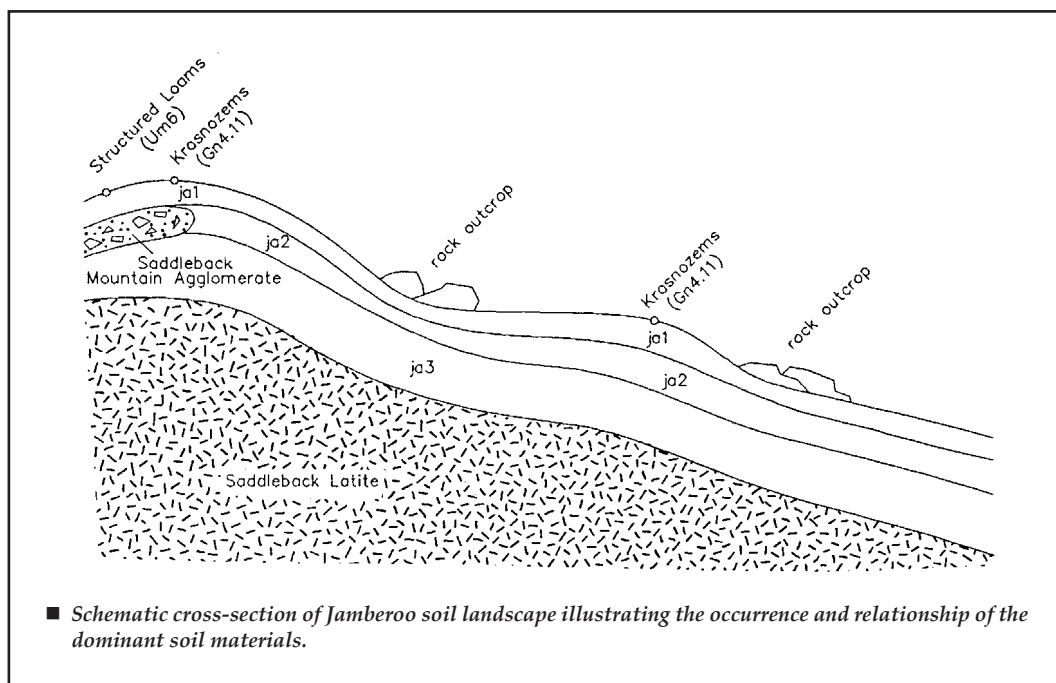
Roots abundant, ex-ped

ja2—Reddish brown sandy clay (subsoil)

Colour reddish brown (2.5YR 4/6) to bright reddish brown (5YR 5/8)
Texture sandy clay
Structure moderately pedal, 5–10 mm granular to polyhedral peds
Fabric rough-faced, porous
pH 4.0–5.0
Stones nil
Roots many, ex-ped

ja3—Reddish brown light clay (subsoil)

Colour reddish brown (2.5YR 4/8) to brown (7.5YR 4/6)
Texture light clay to light medium clay
Structure moderately pedal, 5–10 mm polyhedral peds
Fabric rough-faced, porous
pH 4.0
Stones nil
Roots few, ex-ped



Occurrence and Relationships

The soils are generally uniform throughout the landscape.

Up to 50 cm **ja1** overlies <50 cm reddish brown sandy clay (**ja2**) which overlies <80 cm reddish brown light clay (**ja3**). Boundaries are gradual [Krasnozems (Gn4.11)]. Total depth is <200 cm. On Saddleback Mountain Agglomerate <20 cm friable reddish brown sandy clay loam (**ja1**) overlies bedrock [Structured Loams (Um6)].

LIMITATIONS TO DEVELOPMENT

Soil Limitations

- ja1** High organic matter
Low wet bearing strength
Shrink-swell (localised)
Strongly acid
- ja2** Sodicity
Strongly acid
- ja3** Strongly acid

Fertility

General fertility is moderate to high. The topsoil (**ja1**) is friable. Soil materials are well structured, deep and freely draining with no impermeable clay horizons. They are strongly acid and have a moderate CEC.

Erodibility

Topsoil (**ja1**) has moderate erodibility rating because of high organic content. Subsoils (**ja2**, **ja3**) have low erodibility rating.

Erosion Hazard

Erosion hazard for non-concentrated flows is high. The calculated soil loss for the first 12 months of urban development ranges up to 750 t/ha for topsoils and 300 t/ha for exposed subsoils. The erosion hazard for concentrated flows is low to moderate.

Surface Movement Potential

These deep clayey soil materials are generally stable to very slightly reactive.

Landscape Limitations

Steep slopes (localised)
Mass movement (localised)
Rock outcrop (localised)
Run-on

Urban Capability

Generally moderate limitations for urban development. High to severe limitations for steep slopes on the edge of basalt flows.

Rural Capability

Generally low to moderate limitations for regular cultivation and grazing. High to severe limitations for regular cultivation on steeper slopes (localised).