fb FAULCONBRIDGE Residual (Assoc.)

Landscape—level to gently undulating crests and ridges on plateau surfaces of the Hawkesbury Sandstone. Local relief <20 m. Slopes <5%. Infrequent rock outcrop. Partially cleared eucalypt woodland.

Soils—shallow (<50 cm) Earthy Sands (Uc4.21, Uc5.22) and Yellow Earths (Gn1.21, Gn2.21, Gn2.24); some very shallow (<30 cm) Siliceous Sands/Lithosols (Uc1.2) associated with rock outcrop.

Limitations—shallow, highly permeable soil, very low soil fertility and isolated rock outcrop.

LOCATION

Ridge and plateau surfaces on the Hawkesbury Sandstone of the Woronora Plateau.

LANDSCAPE

Geology

Hawkesbury Sandstone consisting of medium- to coarse-grained quartz sandstone with minor shale and laminite lenses.

Topography

Level to gently undulating, broad crests and ridges on plateau surfaces. Local relief <20 m and slopes <5%. Broad convex ridge crests (300–800 m) are the dominant landform element. Rock outcrop is occasionally present.

Vegetation

Partially cleared low eucalypt woodland with dry sclerophyll shrub understorey. The low woodland includes red bloodwood (*Eucalyptus gummifera*), budawang ash (*Eucalyptus dendromorpha*), sydney peppermint (*Eucalyptus piperita*) and scribbly gum (*Eucalyptus haemastoma, Eucalyptus racemosa*). Other species include smooth-barked apple (*Angophora costata*), coastal banksia (*Banksia integrifolia*), old man banksia (*Banksia serrata*), christmas bush (*Ceratopetalum gummiferum*), brush kurrajong (*Commersonia fraseri*) and blueberry ash (*Elaeocarpus reticulatus*).

Land Use

Uncleared bushland.

Existing Erosion

Minor sheet erosion occurs as sheetwash. Minor trail erosion.

SOILS

Dominant Soil Materials

fb1—Loose olive brown loamy sand (topsoil)

Colour	olive brown (2.5Y 4/3) to dark greyish yellow (2.5YR 5/2)
Texture	sand to fine sandy loam
Structure	apedal single-grained
Fabric	sandy
pH	4.0–6.0
Stones	few
Roots	common

fb2—Earthy yellow light sand clay loam (subsoil)

Colour	brownish yellow (10YR 5/8, 10YR 6/8) to light olive brown (2.5Y 4/6)
Texture	sandy clay loam to sandy clay
Structure	apedal massive
Fabric	earthy
pH	5.5–6.5
Stones	few
Roots	common to rare

fb3—Mottled brownish yellow earthy sandy clay loam (subsoil)

Colour	brownish yellow (10YR 5/8, 10YR 6/8) to yellowish brown (2.5Y 5/6) orange mottles (50%)
Texture	sandy clay loam to sandy clay
Structure	apedal massive
Fabric	earthy
pH	4.5–6.0
Stones	few
Roots	nil

Occurrence and Relationships

Up to 10 cm of loose, olive brown loamy sand **(fb1)** overlies sandstone bedrock [Lithosols or Siliceous Sands (Uc1.2)], or it can overlie 15–30 cm of earthy olive brown clayey sand **(fb2)** which overlies <30 cm of mottled brownish yellow earthy sandy clay loam **(fb3)**. Boundaries between **fb1** and **fb3** are usually clear. There is a diffuse to gradual boundary between **fb2** and **fb3** [Earthy Sands (Uc5.22) or Yellow Earths (Gn2.24, Gn1.21, Gn2.21)]. Total soil depth ranges from 30–100 cm.

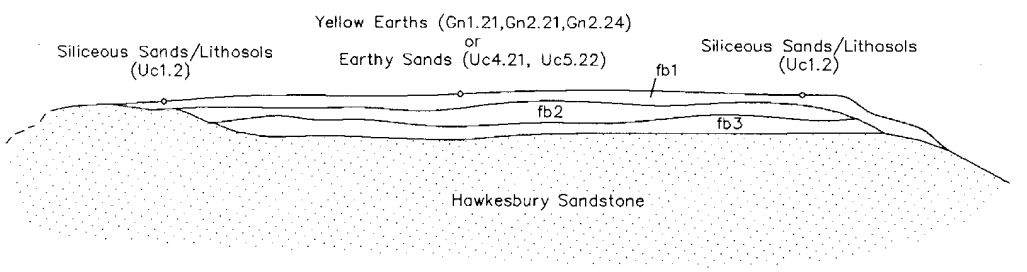
LIMITATIONS TO DEVELOPMENT

Soil Limitations

fb1 High permeability
Low available water-holding capacity
Low fertility
High aluminium toxicity
Strongly acid

fb2 Very low fertility
Localised stoniness
Strongly acid
High aluminium toxicity

fb3 Low available water-holding capacity
Stoniness
Very low fertility
Very strongly acid
Very high aluminium toxicity



■ ***Schematic cross-section of Faulconbridge soil landscape illustrating the occurrence and relationship of the dominant soil materials.***

Fertility

Very low fertility. The soil materials are very strongly acid, have low available water-holding capacities, are shallow, highly permeable, with low organic matter content and very low cation exchange capacity (CEC). They are often severely deficient in nutrients.

Erodibility

fb1 consists of highly permeable, coarse, loose, sand grains which have a very low to low erodibility depending on organic matter present. **fb2** and **fb3** are very low in organic matter and consist of fine sand grains which are weakly cemented in a clay matrix and are moderately erodible.

Erosion Hazard

The erosion hazard for non-concentrated flows is low to moderate. Calculated soil loss during the first 12 months of urban development ranges up to 10 t/ha for topsoil and up to 20 t/ha for exposed subsoil. Soil erosion hazard for concentrated flows is also low.

Surface Movement Potential

Shallow depths and low clay contents make these soils stable to slightly reactive.

Landscape Limitations

Shallow soil
Rock outcrop

Urban Capability

Generally low limitations for urban development.

Rural Capability

Generally high to severe limitations for regular cultivation. Moderate limitations for grazing with careful management.