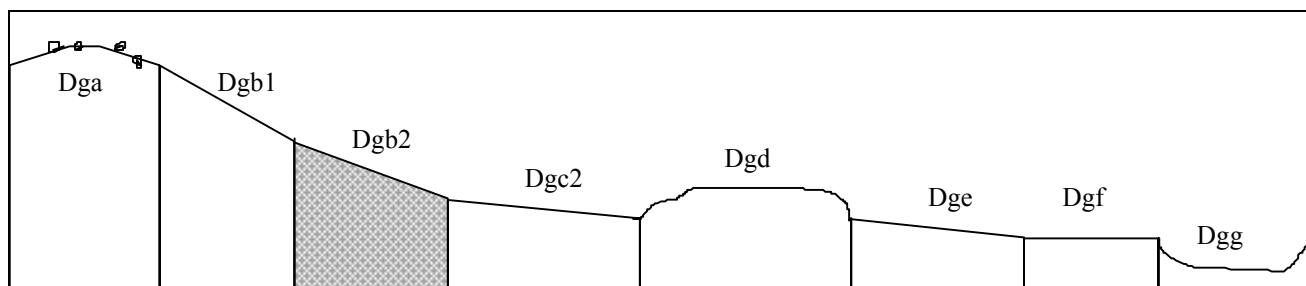


Land Unit: Devonian granodiorite, steep slopes	Land Unit symbol: Dgb2
	% of study area: 2.1



General Description:

This land unit is represented by the steep slopes on granodiorite to the north-east of Buxton. A tall eucalypt forest with associated understorey species protects the soil from erosion and mass movement. Duplex soil profiles predominate, however the depth and degree of profile development is variable and the incidence of outcropping bedrock is common.

Site characteristics:

Site No. 125

Parent material		Depth to seasonal watertable:	> 5 m
Age:	Devonian	Potential recharge to groundwater:	Low *
Lithology:	Granodiorite	Flooding risk:	Nil
Landform		Drainage:	Rapidly drained
Pattern:	Steep hills	Depth to hardrock:	Variable; 0 - 1.5 m
Element:	Slope	Rock outcrop:	30%
Slope		Annual Rainfall:	1090 mm
Common:	35%		
Range:	32 - 45%		
Native vegetation:	Narrow-leaf Peppermint, Messmate, Silver Wattle, Common Cassinia, Bracken		
Present land use:	Recreation, native forest, subdivision into 'bush blocks' near Buxton		

* Granitic areas do not have a high 'recharge' capacity despite high permeabilities of the soil profile (P.R. Dyson - pers. comm.)

Land degradation:

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

Soil profile characteristics:

Permeability	(measured - average, range):	-
	(estimated):	Very high (est.)
Available water capacity:	280 mm H ₂ O	
Linear Shrinkage (B horizon):	4%	

Soil profile description:**Land Unit symbol:** Dgb2

- A1 0 - 13 cm Dark reddish brown (5YR2.5/2) coarse sandy loam, weak subangular blocky structure, peds 7 mm, rough fabric, very weak consistence - slightly moist, fine angular quartz gravel fragments are common, high organic matter, pH 6.0. Clear transition to:
- A2e 13 - 55 cm Brown (7.5YR5/4) loamy sand, conspicuously bleached (7.5YR8/2 - dry), apedal massive (structure), sandy fabric, very weak consistence - slightly moist, subrounded granitic cobbles are common, low organic matter, pH 6.2. Clear transition to:
- B21t 55 - 80 cm Strong brown (7.5YR5/6) fine sandy clay loam, weak subangular blocky structure, peds 30 mm, rough fabric, weak consistence - slightly moist, few coarse granitic gravel fragments, pH 6.2. Diffuse transition to:
- B22 80 - 200 cm Yellowish red (5YR4/6) medium clay, subangular blocky structure, peds 10 mm, smooth fabric, moderately firm consistence - slightly moist, few round granitic cobbles, pH 6.0.

Soil classification:

Factual Key (Northcote, 1979):

Dy 2.41 - 2/1/055

Australian Soil Classification (Isbell, 1992):

Bleached, Eutrophic, Brown Chromosol; medium, gravelly, loamy/clayey, moderate

Unified Soil Group:

SC

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

Horizon	pH	Gravel %	E.C. (salts)	Nutrient status	P	K	Al	Organic matter	Dispersibility
A1	6.0	12	VL	L	D	S	S	H	M
A2e	6.2	15	VL	VL	D	S	S	L	M
B21t	6.2	11	VL	VL	D	S	S	VL	H
B22	6.0	8	VL	L	D	S	S	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 ₅ S ₅	Very steep slopes, shallow soils and very high susceptibility to sheet/rill erosion
Building foundations - slab - stumps/footings	5 5	Steep - very steep slopes, high proportion of stones and boulders, very high susceptibility to slope failure
Effluent disposal (septic tanks)	5	Very steep slopes, excessive permeability may contaminate springs further downslope
Farm dams	5	Very steep slopes, excessive permeability, low suitability of subsoil, shallow soils, very high susceptibility to slope failure
Residential - rural	5	Very low capability for slab foundations, farm dams, effluent disposal and secondary roads
- urban	5	Very low capability for slab foundations and secondary roads
Scenic value	2 & 3	
Secondary roads	5	Very steep slopes, very high susceptibility to slope failure, high proportion of stones and boulders, high dispersibility of subsoil