

## **General Description:**

The ridgeline and crests of this granitic hill form only a small narrow land unit, but the scene is one of high value to the local population and the large number of travellers that pass through Buxton. Large tors are abundant and the coarse sandy soils are variable in depth and area. Frequent rainfall provides sufficient moisture to maintain the tall eucalypt forest on soils that drain rapidly and have an extremely low water-holding capacity.

#### Site characteristics:

Site No. -

Parent material		Depth to seasonal			
Age:	Devonian	watertable:	> 5 m		
Lithology:	Granodiorite	Potential recharge			
Landform		to groundwater:	Low *		
Pattern:	Steep hills	Flooding risk:	Nil		
Element:	Sharp crest	Drainage:	Rapidly drained		
Slope		Depth to hardrock:	Variable; 0 - 50 cm		
Common:	5%	Rock outcrop:	80%		
Range:	3 - 10%	Annual rainfall:	1090 mm		
Native vegetation:	Broad-leaf and Narrow-leaf Peppermint, Messmate, Blackwood, Silver Wattle				
Present land use:	Recreation, native forest				

\* 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 er Sheet/rill	osion Gully	Wind Erosion	Salting	Acidification
Susceptability	Low	Low	High	Low	Moderate
Incidence	Nil	Nil	Nil	Nil	Low

### Soil profile characteristics:

Permeability	(measured - average, range): (estimated):	- Excessive
Available water capacity:		< 50 mm H <sub>2</sub> O
Linear Shrinkage (B horizon):		Very low (est.)

## Soil profile description:

Land Unit symbol: Dga

А	0 - 10 cm	Dark brown (7.5YR3/2) loamy coarse sand, weak subangular blocky structure, 5% organic matter,
		weak, consistence, quartz gravel fragments, pH 5.7. Diffuse transition to:

B 10 - 45 cm Reddish brown (5YR4/4) coarse sandy loam, apedal, weak consistence, pH 6.0. Clear transition to weathering parent material

### Soil classification:

Factual Key (Northcote, 1979):	Uc 5.11 - 1/1/010
Australian Soil Classification (Isbell, 1992):	Basic, Paralithic Orthic Tenosol; medium, slightly
	gravelly, sandy/loamy, shallow
Unified Soil Group:	SP

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

Horizon	рН	Gravel %	E.C. (salts)	Nutrient status	Р	К	Al	Organic matter	Dispersibility
Α	5.7	5	VL	VL	D	S	S	Н	L
В	6.0	3	VL	VL	D	S	S	L	L
VL: Very Lo	ow L	: Low	M:	Moderate	H	High		VH: Very H	igh
D: Deficient	t S	: Satisfactor	y T:	Toxic	N.	A: Not Ava	ailable	** Acidic	

# Land capability ratings and limitations for specific land uses:

Land use	Rating	Major limiting factor(s)
Agriculture	C <sub>3</sub> T <sub>3</sub> S <sub>5</sub>	Very shallow soils, very low water-holding capacity of soils
Building foundations - slab - stumps/footings	5 5	Very high proportion of boulders and tors within and above the shallow soil
Effluent disposal (septic tanks)	5	Very shallow soils, excessive permeability may contaminate fresh water springs further downslope
Farm dams	5	Very low suitability of subsoil, very shallow soils, excessive permeability
Residential - rural	5	Very low capability for building foundations, effluent disposal, farm dams and secondary roads
- urban	5	Very low capability for building foundations, secondary roads
Scenic value	2	-
Secondary roads	5	Very high proportion of boulders and tors, shallow soils