

# 718251

## MOUNT BOWES

This large land system situated in the east of the study area extends from The Needles and Mount Bowes in the north, across the upper reaches of the Huon River and down the eastern side of the New River Valley. Access is a problem and field work was concentrated along the Gordon Dam, Scotts Peak and Mount Mueller Roads and in the Mount Anne—Schnells Ridge area. A brief visit was also made to the Jubilee Range. The geology of the land system is complex with both Precambrian and Cambrian sediments present. Precambrian rocks include sandstone, conglomerate, siltstone, slate, dolomite and phyllite. The Cambrian sediments are restricted to an area around the upper Weld River Valley and consist of various dolomite units.

Some of the high country around Schnells Ridge and Mount Anne was glaciated in the Pleistocene producing glacial lakes, prominent moraines and cirques. Outwash deposits occur in the Blakes Opening area. These have been investigated by Colhoun and Goede (1979). Most of the land system consists of rugged terrain with deep "V" shaped valleys, steep slopes and narrow ridges. Higher, flatter country occurs on the Jubilee Range and Gallagher Plateau. Karst topography including sink holes, underground streams, lakes, caverns and galleries occur on the north east ridge of Mount Anne and the Weld River valley which has been little explored.

Exposure appears to have had considerable influence on vegetation and soil development. More exposed (western) slopes around Schnells Ridge, the Jubilee Range and the Gallagher Plateau have sedgeland/heath or scrub vegetation with organic soils overlying sandy gravels or sandy loams. These subsoils have been exposed on some slopes and crests possibly as a result of firing and wind and water action. The peats on

these well drained slopes are usually a reddish brown or black colour. Vegetation varies from *Sprengelia incarnata*, *Leptospermum nitidum*, *Gymnoschoenus sphaerocephalus*, *Melaleuca squamea* dominated sedgeland/heath on lower and mid slopes to *Eucryphia milliganii*, *Richea scoparia*, *Eucalyptus vernicosa* dominated open to closed heath on exposed upper slopes. Scrubby slopes are typical in some locations (e. g. below Mount Sarah Jane) and here *Leptospermum nitidum*, *Agastachys odorata*, *Banksia marginata*, *Gahnia grandis*, *Eucryphia milliganii* and *Nothofagus cunninghamii* often occur. The most exposed high crests may have reasonably deep organic soils with the grass *Carpha curvata* common. In slightly better protected rocky positions *Eucalyptus vernicosa*, *Bauera rubioides*, *Olearia ledifolia* and *Pimelea sericea* may reach 0.30m. The most protected slopes and gullies have shallow reddish brown organic soils over loam, clay loam or clay gradational soils. Rainforest or mixed forest is typical in these locations with *Nothofagus cunninghamii*, *Eucryphia lucida* and *Phyllocladus aspleniifolius* widespread and although *Atherosperma moschatum* was not recorded in the site data it is likely to be fairly common. *Eucalyptus obliqua* tall open forest dominates large areas of the land system, often with a rainforest understorey. Gradational soils characterise these sites and may be overlain by shallow organic soils.

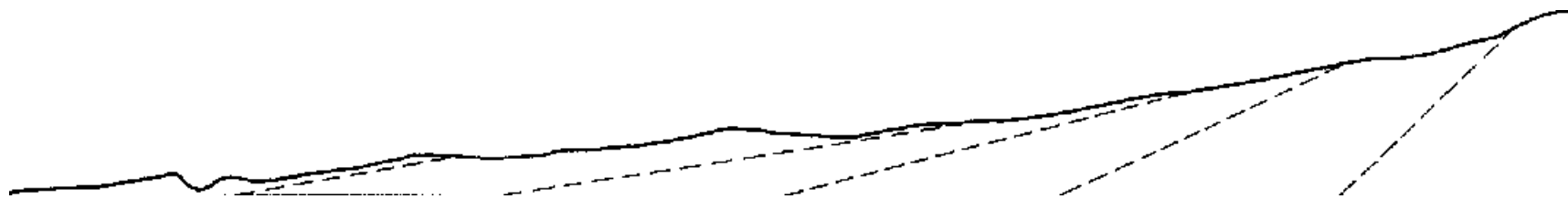
Most of the land system is designated state forest with logging a possibility in the near future. An area around Mount Anne is included in the South West National Park. Bushwalking and caving are popular recreational pursuits in parts of the land system.

There is a high sheet erosion hazard on slopes with sedgeland/heath vegetation where peats have the potential to dry out and burn if fires occurs. Areas which are particularly vulnerable include Schnells Ridge, the Gallagher Plateau and the Jubilee Range.

LAND SYSTEM  
MT BOWES

718251

Area (ha) : 81960



ALTITUDINAL RANGE (m)	300-600		APPROXIMATE ANNUAL RAINFALL (mm) 1500-2000			
SITE NO. / ALTITUDE	(65/320/S)(67/350/SW)	(81/560/NE) (139/300/-)	(66/320/W) (104/600/NW)	(142/800/SW) (145/650/W)	(105/960/W) (143/1000/SW)	149/1050/-
TOPOGRAPHY	Mountainous terrain with steep slopes, prominent ridges and some glaciated topography					
Position slopes and gullies	Protected	Forested slopes and flats	Exposed slopes	Scrubby slopes	Exposed upper slopes	Crests
Typical Slope ( )	5-10	0-5	10-20	5-30	10-30	-
Proportion	25	35	15	10	10	5
GEOLOGY	Complex Precambrian and Cambrian sediments including - sandstone, conglomerate, siltstone, slate, dolomite and phyllite					
NATIVE Structure	Closed forest/ Mixed	Mixed forest/ Tall open-forest	Sedgeland/heath	Open to closed-scrub	Open to closed-heath	Grassland/sedgel and/ low shrubland
Floristic Association (See Appendix 1 for common names)	Nathofagus cunninghamii Eucryphia lucida Phyllocladus asplenifolius Acacia melanoxylon Eucalyptus obliqua E. delegatensis E. nitida Anopterus	Eucalyptus delegatensis E. nitida Acacia melanoxylon Eucryphia lucida Nothofagus cunninghamii Phebalium squameum Poraderris apetala	Sprengelia incarnata Leptospermum nitidum Gymnoschoenus sphaerocephalus Melaleuca squamea Lepidosperma filiforme Restio monocephalus R. complanatus Calorophus elongatus Exocarpos syrticola Agastachys	Leptospermum nitidum Agastachys odorata Banksia marginata Gahnia grandis Eucryphia milliganii Nothofagus cunninghamii Personia gunnii	Eucryphia milliganii Richea scoparia Eucalyptus vernicosa Oxylobium ellipticum Isophysis tasmanica Sprengelia	Carpha curvata Oreobolus pumilio Astelia alpina Isophysis tasmanica Restio complanatus Sprengelia incarnata var. montana Epacris serpyllifolia Eucalyptus
SOIL Surface(A P horizon) Colour (moist) and texture	Dark reddish brown (5 YR 2. 5/2) to dark brown (7. 5 YR 3/2) fibrous peat.	Very dark greyish brown (10 YR 3/2) loam or clay loam.	Reddish black (10 YR 2. 5/1) fibrous peat over a black (7. 5 YR 2/0) or very dark grey (10 YR 3/1)	Black (5 YR 2. 5/1) to dark reddish brown (5 YR 2. 5/2) fibrous peat over a black (10 YR 2/1)	Dark reddish brown (5 YR 2. 5/2) to reddish black (10 YR 2. 5/1) fibrous peat sandy in places.	Reddish black (10 R 2. 5/1) fibrous peat over a black (10 YR 2/1) muck peat.
Subsoil (or B horizon) colour (moist) and texture	Dark greyish brown (10 YR 4/2) loam or clay loam over a light grey (10 YR	Brown/dark brown (7. 5 YR 4/2) clay loam over a brown dark brown (7. 5 YR	Gravel or brown/dark brown (10 YR 4/3) clay loam	Dark greyish brown (10 YR 4/2) sandy clay or dark reddish brown (5 YR 3/2)	Sand and gravels	Gravelly sand loam
Primary Profile form	Gradational	Gradational	Organic	Organic	Organic	Organic
Depth surface horizon(m)	0.	0. 10-0. 40	0. 30-0. 50	0. 25	0. 20	0. 50
Typical total depth(m)	0. 75	0. 90	0. 60	0. 45	0. 20	0. 50
Permeability	Moderate	Moderate	Moderate	Hugh	High	High
LAN) USE HAZARD	State forest, nature conservation near Mt Anne					
	Moderate to high track erosion					
	High sheet erosion if burnt					