

917251

FRANKLIN RIVER

This land system covers dissected, mountainous country underlain by Precambrian quartzite and schist in the north of the study area. Rain forest is typical of the deep river valley's and more protected slopes while open to closed sedgeland/heath is widespread in more exposed locations. Mount Mary, Wards Bluff and Flat Bluff probably all had small ice caps at some time during the Pleistocene epoch. The Mary Creek valley south of Flat Bluff appears to have been affected by glacial action and minor amounts of dolerite were found at the eastern extent of the valley. Known dolerite deposits are well removed from this location. Maud, Mary and Joyce Creeks and the Alma River have narrow alluvial flats which may have formed from glacial outwash deposition. Most other creeks and rivers in the area have typical "v" shaped fluvial valleys. These are best demonstrated by the Franklin River which has carved spectacular steep gorges in the Precambrian country rock.

Alluvial deposits are common around larger rivers and creeks although they may be totally lacking in the gorges. The high water or flood mark on the Franklin River is quite obvious on aerial photographs giving an indication of regular flood events. Riverine rainforest dominates along river banks with *Nothofagus cunninghamii*, *Eucryphia lucida* and *Lagarostrobos franklinii* common. This gives way to thick horizontal scrub further from the river, often up steep slopes, with *Anodopetalum biglandulosum*, *Anopterus glandulosus*, *Leptospermum* spp., *Melaleuca* spp.

and *Eucalyptus nitida* typical (N. B. No detailed description is given on the land system diagram of this position). The slopes and ridges above this have open to closed heath with localised patches of scrub consisting of *Eucalyptus nitida* and *Banksia marginata* which seldom extend above 900m. In addition to the species listed under (exposed) slopes and ridges the following are also found; *Persoonia gunnii*, *P. muelleri*, *Monotoca submutica*, *Boronia pilosa*, *Xyris* sp., *Bauera rubioides*, *Tetraria capillaris* and *Pimelea lindleyana*. This component characteristically has black organic soils over sandy gravels or loamy sands (on quartzite) or clay loam (on schist). Soils on schist often have a high mica content. On some steep slopes mineral soils have been disturbed by downslope movement or colluvial processes. These soils usually support rainforest. The higher parts (mountains north of the Franklin River) of the land system have black organic soils over a sandy clay loam. At the highest locations surface soils are constantly removed by wind leaving a mineral substrate and sparse vegetation cover (feldmark). The following species which are not listed in the land systems diagram, were observed on upper slope or crest positions in the Flat Bluff area: *Athrotaxis selaginoides*, *Nothofagus gunnii*, *Drosera arcturi*, *Anemone crassifolia*, *Gleichenia dicarpa*, *Helichrysum milliganii*, *H. pumilum*, *Mitrasacme archeri*, *Senecio pectinatus* and *Actinotus moorei*. Similar species are likely on other exposed peaks above 800 m.

This land system is covered by the Franklin/Lower Gordon Wild Rivers Park with bushwalking, rafting and canoeing major activities. The steep, well drained slopes with organic soils are vulnerable to erosion as a result of fires.

LAND SYSTEM
FRANKLIN RIVER

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Area (ha): 63788

ALTITUDINAL	300-600	APPROXIMATE ANNUAL RAINFALL (mm) >2500		
SITE No. /Altitude: m)/ASPECT	130/380/S	120/520/&E	(131/640/N) (70/700/M)	(132/1000/SE) (133/1100/-)
TOPOGRAPHY		Mountainous terrain with steep slopes and deep river valleys		
Position	River banks	Gullies/protected slopes	(Exposed) Slopes and ridges	Upper slopes and crests
Typical Slope(°)	10-30	15-20	10-40	0-10
Proportion (%)	10	30	30	30
GEOLOGY		Precambrian quartzite and shist with minor glacial features and deposits		
NATIVE VEGETATION	Closed- forest	Closed-forest	Open to closed heath	Open to closed-heath to
Structure				
	Lagarostrobos	Nothofagus cunninghamii	Gymnoschoenus	Eucalyptus vernicosa
Floristic Association	Nothofagus cunninghamii	Eucryphia lucida	Melaleuca squamea	Diselma archeii.
(See Appendix 1 for common names)	Eucryphia lucida	Atherosperma moschatum	Banksia marginata	Microcahrvs tetragona
	Anodopetalum	Anodopetalum	Eucalyptus nitida	Empodisma minus
	Anapterus glandulosus	Dicksonia antarctica	Spengelium incarnata	Donatia novae-zelandiae
	Acacia dealbata	Phyllocladus	Leptospermum nitidum	Restio complanatus
	A. mucronata	Trochocarpa gunnii	Xyris sp.	Sprengelia incarnata var.
	A. melanoxylon	Grarmitis billardieri	Stylidium granimifolium	Ewartia meridithae
	Blechnum wattsii	Hymenophyllum sp.	Restio complanatus	Oreobolus pumilio
	Cenarrhenes nitida	Histiopteris incisa	R. monocephalus	Epacris serpyllifolia
	Atherosperma moschatum	Blechnum wattsii	Agastachys odorata	Carpha curvata
	Orites diversifolia	Libertia pulchella	Baeckea leptocaulis	C. alpina
	Archeria ericarpa		Bauera rubioides	Abrotanella forsteriodes
	Pomaderris apetala		Empodisma minus	Gentianella diemensis
SOIL Surface(A or P horizon) Colour (moist) and	Brown/ dark brown (10 YR 4/3) sandy clay loam over olive brown (2. 5 Y 4/4) sandy clay loam over a brownish yellow	Very dark greyish brown (10 YR 3/2) silty clay loam over greyish brown (2. 5 Y 5/2) clay loam	Black (10 YR 2/1) to very dark greyish brown (10 YR 3/2) fibrous psat over a muck peat in places	Dark brown (7. 5 YR 3/2) or dark reddish brown (5 YR 3/3) fibrous peat
Subsoil (or B horizon) colour (moist) and			Dark grey (10 YR 4/1) clay loam or loamy sand on brown/dark brown (7. 5 YR 4/2)	Brown/dark brown (7. 5 YR 4/2) or greyish brown (10 YR 5/2) sandy clay loam
Primary Profile form	Complex (alluvium)	duplex (colluvium)	Organic	Organic/Uniform
Depth surface horizon(m)) 0. 25	0. 10	0. 30	0. 05-0. 30
Typical total depth(m)	>1. 25	0. 50	0. 40	0. 30-0. 65
Permeability	High	Moderate	High-Moderate	High
LAND USE		Nature conservation, recreation		
HAZARD	High track erosion		High sheet erosion hazard if burnt frequently	