

728121

MAINWARING RIVER

The Mainwaring River Land System is situated in the west of the study area between Sassy Creek in the south and Macquarie Harbour in the north. It consists of undulating plains with a number of deep river valleys. The area is underlain by undifferentiated Cambrian sediments and basic to intermediate volcanic rocks. An area west of Birchs Inlet has some Ordovician rocks which take the form of a plunging syncline. The rocks are composed of limestone and siliceous sediments. Minor areas of granitic rock also occur in the area. The mouth of Hibbs Lagoon in the north west of the land system appears to be fault controlled.

Prominent rainforest-sedgeland/heath boundaries exist between this land system and the Wanderer, Spero River, Mt Osmund and Cape Sorell Land Systems. The latter land systems are dominated by organic soils over gravels while the rainforest or mixed forest of the Mainwaring River Land System has shallow organic soils over deep

mineral soils (up to and over 3.00 m). Fires in the region have mainly been restricted to the areas of sedgeland/heath and the organic soils have serious sheet erosion problems. Around Sassy Creek sediments and more extensive basic volcanic rocks have deep mineral soil with forest cover. These contrast with the Cambrian acid volcanics (Wanderer River Land System) to the west which have deeper organic soils over shallow gravels with sedgeland/heath vegetation.

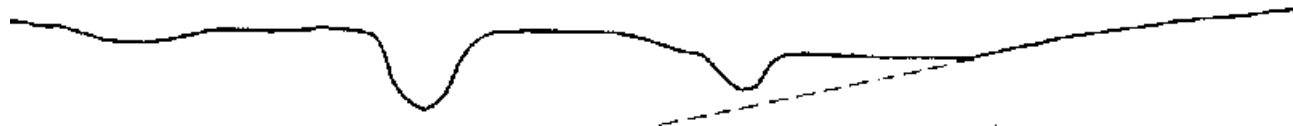
Huon pine (*Lagarostrobos franklinii*) occurs in this land system on the Spero, Wanderer and Mainwaring Rivers as well as on Copper, Abo and Sassy Creeks (Gibson 1986). Rainforest dominates large areas with *Nothofagus cunninghamii* and *Atherosperma moschatum* common although emergent *Eucalyptus nitida* also occur. *Eucalyptus nitida* is especially typical of slopes, ridges and crests where exposure and good drainage results in drier conditions and a greater risk of firing. Localised thickets of *Leptospermum* and *Melaleuca* spp. occur in poorly drained depressions.

Nature conservation and mineral exploration are the main land uses in this land system.

LAND SYSTEM
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Area (ha): 54445



ALTITUDINAL RANGE (m)	0-300	APPROXIMATE ANNUAL RAINFALL (mm)	1500-2000
SITE NO. /ALTITUDE	194/120/-		195/140/W
(m)/ASPECT			
TOPOGRAPHY	Undulating plains with prominent river valleys		
Position Typical	Undulating terrain/river valleys		Exposed slopes
Slope()	0-10		5-20
Proportion(%)	70		30
GEOLOGY	Cambrian sediments and basic to intermediate volcanic rocks		
NATIVE VEGETATION	Closed - forest mixed forest		Open-forest
Structure			
Floristic Association (See Appendix 1 for common names)	<i>Nothofagus cunninghamii</i> <i>Atherosperma moschatum</i> <i>Eucalyptus nitida</i> <i>Anodopetalum biglandulosum</i> <i>Dicksonia antarctica</i> <i>Aristotelia peduncularis</i> <i>Anopterus glandulosus</i> <i>Blechnum wattsi</i>		<i>Eucalyptus nitida</i> <i>Leptospermum scoparium</i> <i>Monotoca submutica</i> <i>Cenarrhenes nitida</i> <i>Gahnia grandis</i> <i>Restio tetraphyllus</i> <i>Anopterus glandulosus</i> <i>Phebalium squameum</i> <i>Gleichenia dicarpa</i> <i>Bauera rubioides</i> <i>Drimys lanceolata</i> <i>Billardiera longiflora</i>
SOIL Surface (A or P horizon) Colour (moist) and texture	Very dark brown (10 YR 2/2) fibrous peat		Dark reddish brown (5 YR 3/2) fibrous peat
Subsoil (or B horizon) (moist) and texture	Brownish yellow (10 YR 6/8) light colour clay over a brownish yellow (10 YR 6/8) silty clay loam with yellow (10 YR 7/6) and white (10 YR 8/2) streaks		Dark greyish brown (10 YR 4/2) light sandy clay loam
Primary Profile form	Complex / Gradational		Uniform
Depth surface horizon(m)	0. 10		0. 05
Typical total depth(m)	>3. 00		>0. 40
Permeability	Low		High
LAND USE	Nature conservation, mineral exploration		
HAZARD	Moderate rill erosion		