

764251

ARTHUR RIVER

Mountainous topography has resulted from the deep entrenchment of the upper tributaries of the Arthur River into Permian, Upper Carboniferous sediments.

Shallow brown soils on the crests give way to much deeper, strong brown profiles on the moderate upper slopes. The major soil has formed from gravelly colluvium on steep valley slopes and the profiles are yellowish red and reddish brown and sometimes red in colour. Although mostly only about half a metre deep, pockets of much deeper, fine structured soils are also present. Strong brown clay soils have developed on the very gentle slopes along the valley

floors. Yellower and sometimes mottled soils were found on poorer drained sites.

Most of the area is covered by a tall eucalypt forest dominated by stringybark and gum-topped stringybark. Dogwood and stinkwood are important members of the understorey. A tall myrtle rainforest forms a closed community along the flowlines.

Arthur River land system is heavily exploited for timber production. Nature conservation is of secondary importance. Recreation is a localised but also important land use.

The greatest hazard is on the steepest slopes, where there is risk of severe sheet and rill erosion. The likelihood of erosion and siltation along the flowlines is also mainly attributable to the mountainous topography.

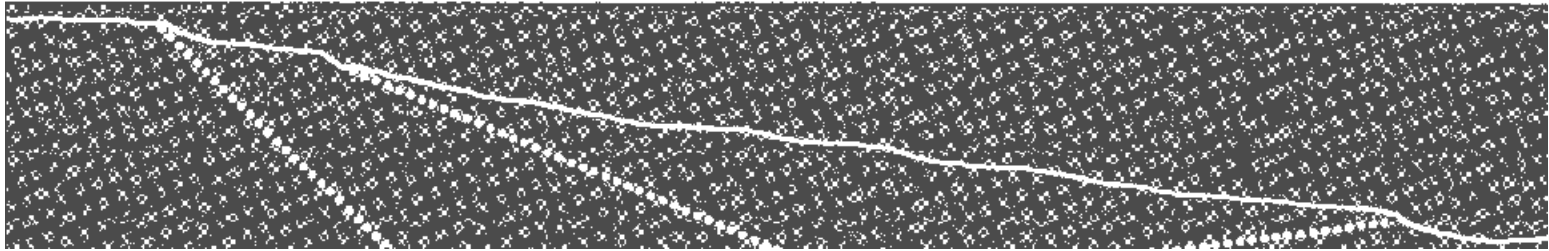


Virgin rainforest in a flowline

LAND SYSTEM

764251

Arthur River



COMPONENT	1	2	3	4
PROPORTION %	10	10	70	10
CLIMATE	Average Annual Rainfall 1 500-2 000 mm			
GEOLOGY	Permian-Upper Carboniferous mudstones, tillite			
		Colluvium	Alluvium	
TOPOGRAPHY	Mountainous river valleys aligned NW-SE			
Land form				
Position	Crests	Moderate upoer slopes	Steep sided slopes	Footslopes, drainage lines
Average Sideslope °	2	10	18	1
NATIVE VEGETATION				
Structure	Tall open forest			Tall closed forest
Association	Stringybark, gum topped stringybark, dogwood, stinkwood			Myrtle, dogwood, leatherwood, soft tree fern
SOIL	Brown (10 YR 4/3) gradational soil	Gravelly, strong brown (7 5 YR 5/6) gradational soil	Gravelly, friable, yellowish red (5 YR 5/6) and reddish brown (5 YR 4/4) gradational soils	Strong brown (7 5 YR 5/6) clay soil, uniform texture
Surface Texture	Clay loam		Loam	Silty clay
Permeability	Moderate		High	Moderate
Average Depth m	0 3	1 2	0 6	0 5
PRESENT LAND USE	Forestry, nature conservation			
HAZARDS	Low sheet erosion	High sheet and rill erosion		Moderate siltation, moderate stream bank erosion