

788131

SPERO RIVER

The Spero River Land System is an area of low terraced slopes and plateaus underlain by relatively unconsolidated Tertiary sediments (Scott 1961). These were deposited in the Macquarie graben which extends from Strahan to the Wanderer River. A distinctive fault contact separates these rocks from the basic Cambrian volcanic rocks (land system 728121) to the west, which have deep soils and rainforest vegetation. In contrast the Spero River Land System is dominated by sedgeland/heath which grows on shallow sheet eroded organic soil that usually overlies a gravel layer.

Frequent firing has destroyed large volumes of peat (Pemberton 1988) while ash and residual soil have subsequently been eroded by wind and water. The peats on ridges, slopes and crests are most vulnerable as they tend to dry out rapidly. Vegetation on these areas is sparse and stunted and underlying gravels with minor interstitial peat is all that remains over large areas. As a result of peat loss increased surface flows have resulted in the development of large gullies on the relatively unconsolidated Tertiary deposits.

This land system is in the South West Conservation area. Severe sheet and gully erosion (see photographs in Firing and Soil Erosion section) is occurring on this land system and the prospects of stabilising the region appear to be slim particularly if fires continue to occur regularly.



Photo 40

Severe sheet erosion on well drained positions (Photograph Mr J Grant)

LAND SYSTEM
SPERO RIVER

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Area (ha): 44927



ALTITUDINAL RANGE(m)	0-300	APPROXIMATE ANNUAL RAINFALL (mm) 1500-2000	
SITE NO. /ALTITUDE (m) /ASPECT	56/120/E	53/240/E	52/240/E
TOPOGRAPHY		Long terraced slopes	
Position	Slopes	Narrow valleys	Crests (upper slopes)
Typical Slope()	3-20	20-40	3-10
Proportion(%)	50	10	40
GEOLOGY	Interbedded Tertiary gravels, sands, silts, clays and lignite bands		
NATIVE VEGETATION Structure	Open sedgeland/heathland (site burnt 1986)	Woodland	Closed heath/sedgeland
Floristic Association (See Appendix 1 for common names)	Gymnoschoenus sphaerocephalus Calorophus elongatus Restio monocephalus Melaleuca squarrosa Boronia pilosa Lepidosperma filiforme Drosera sp. Eriostemon virgatus Stylidium graminifolium Sprengelia incarnata Baeckea leptocaulis Lindsaea linearis Patersonia fragilis	Eucalyptus nitida Banksia marginata Leptospermum scoparium L. nitidum Melaleuca squamea Cenarrhenes nitida Acacia mucronata Gahnia grandis Bauera rubioides Eriostemon virgatus Agastachys odorata Billardiera longiflora Sticherus tener	Hakea epiglottis Banksia marginata Leptospermum nitidum L. scoparium Sprengelia incarnata Gymnoschoenus sphaerocephalus Restio australis R. monocephalus R. complanatus Melaleuca squamea Baeckea leptocaulis Helichrysum pumilum Stylidium graminifolium
SOIL Surface(A or P horizon)Colour (wet) and texture	Gravelly, sandy very dark grey (10 YR 3/1) fibrous peat over muck peat in places	Dark reddish brown (5 YR 2.5/2) fibrous peat	Very gravelly dark brown (10 YR 3/3) fibrous peat over a gravelly very dark greyish brown (10 YR 3/2) muck peat
Subsoil (B horizon) colour (wet) and texture	Gravels	Gravelly very dark grey (10 YR 3/1) sandy loam	Gravels
Primary Profile form	Organic	Uniform	Organic
Depth surface horizon(m)	0.40	0.05	0.35
Typical total depth(m)	>0.40	0.75	0.35
Permeability	High	High	High
LAND USE		Nature conservation/mineral exploration	
HAZARD		High gully and sheet erosion	