

# 798123

## GIBLIN RIVER

This land system is situated in the far west of the study area and includes lowland undulating plains between the Giblin River and Port Davey. It occurs immediately inland from the Coastal Heath Land System (718111) and is probably affected by exposure to strong westerly winds and salt spray. Bedrock consists of Precambrian quartzite, schist and conglomerate units which are typically overlain by gravel and peat deposits.

Organic soils cover most of the land system but severe sheet erosion on many of the better drained slopes and ridges caused by burning and subsequent wind and water erosion, appears to have removed up to 0.30 m of soil. This is especially obvious on the Lower Hut Plains and at the base of the De Witt Range where exposure of bedrock and gravels is clearly evident. Peat and sand eroded from the slopes of the De Witt Range, possibly after the December 1985 fire, is presently accumulating at the base of the slopes. Colour aerial photographs taken after this fire revealed that it mainly affected sedgeland/heath where soils and vegetation are more likely to dry out and burn. Scrub and taller heath vegetation associated with coastal environments (Coastal Heath and Mulcahy Bay Land Systems) appears to have been affected by occasional spotting which

rarely seems to have spread. Similarly small pockets of rainforest which occur in the land system (no site data) had burnt margins. This probably happens because the button grass fires die out in the rainforest as a consequence of wetter understorey conditions. As a result rainforest edges often have a surrounding belt of sclerophyllous vegetation with *Eucalyptus nitida*, *Leptospermum* spp., *Melaleuca* spp., *Banksia marginata* and *Gahnia grandis* common.

The undulating plains are typically covered by black organic soils with peaty quartzitic gravels or loamy sand subsoils. They are covered by sedgeland/heath with *Gymnoschoenus sphaerocephalus*, *Melaleuca squamea* and *Leptospermum* spp. common. *Agastachys odorata* and *Banksia marginata* often emerge above surrounding vegetation. In protected situations rainforest or mixed forest occurs and usually has a shallow organic horizon overlying a mineral soil such as a sandy loam. *Eucryphia lucida*, *Atherosperma moschatum* and *Nothofagus cunninghamii* may be expected in these locations with *Anopterus glandulosus*, *Blechnum wattsii* and *Dicksonia antarctica* common in the understorey. Moss and extensive ground litter is also typical.

Sheet erosion is a major problem in this land system. If it is to be halted further firing must be prevented. This land system falls within the South West Conservation Area and South West National Park which is part of the World Heritage Area.

Photo 46



Severe peat erosion on a well drained slope near Isolated Hill

LAND SYSTEM  
GIBLIN RIVER

798123

Area (ha) : 39972

ALTITUDINAL	0-300	APPROXIMATE ANNUAL RAINFALL, (mm)		1500 -
SITE NO/ALTITUDE	172/10/E	176/30/-	(173/40/-)	177/40/-
(m)/ASPECT			(182/25/-)	
TOPOGRAPHY	Undulating coastal plains (west coast)			
Position	Protected sites (river)	Very poorly drained depressions	"well" drained crests and slopes	"well" drained sheet eroded locations
Typical Slope( )	5-20	0-3	0-3	0-3
Proportion (%)	5	30	40	25
GEOLOGY		Peat and gravel deposits overlying Precambrian quartzite, schist and conglomerate		
NATIVE VEGETATION Structure	Closed to open-forest	Open to closed-sedgeland/h	Open to closed-sedgeland/h	low open shrubland
Flonstic Associatio n (See Appendix 1 for common names)	Eucryphia lucida Athorosperma moscchatum Nothofagus cunninghamii. (Eucalyptus nitida) Anopterus glandulosus Drimys lanceolata Blechnum wattsii Granmitis billardieri	Melaleuca squarrosa Gymnoschoenus schaerocephalus Lepidosperma filiforme Gleichenia dicarpa Drosera binata Sprengelia incarnata Bauera rubioides Leptospermum scoparium Banksia marginata Xyris sp.	Gymnoschoenus schaerocephalus Agastachys odorata Sprengelia incarnata Melaleuca squamea Leptospermum nitidum Xyris sp. Drosera binata Restio complanatus R. monocephalus Baeckea leptocaulis Epacris corymbiflora	Gymnoschoenus schaerocephalus Boronia pilosa Empodisma minus Lepidosperma filiforme Sprengelia incarnata Isophysis tasmanica Leptospermum nitidum Epacris obtusifolia Selaginella uliginosa
SOIL Surface(A or P horizon)	Dark reddish brown (5 YR 2.5/2) fibrous peat	Black (7.5 YR 2/0) fibrous peat over a black (7.5 YR 2/0) muck peat	Black (5 YR 2.5/1) fibrous peat over a black (10 YR 2/1 or 7.5 YR 2/0) muck peat	Dark brown (7.5 YR 3/2) fibrous peat
Subsoil (or B horizon) colour (moist)	Dark reddish brown (5 YR 3/2) sandy loam	Peaty quartzitic gravels	Black (10 YR ?/1) loamy sand or peaty quartzitic gravels	Peaty gravels
Primary Profile form	Uniform	Organic	Organic	Organic
Depth surface horizon(m)	0.20	0.60	0.40-0.60	0.10
Typical total depth(m)	0.45	0.65	0.50-0.70	>0.30
Permeability	High	High	High	High
LAND USE		Nature conservation		
HAZARD			High sheet erosion	High sheet erosion