

LAND SYSTEM
Waterfall Bay

468141

Area (ha):
1966

COMPONENT	A	B	C	D
PROPORTION (%)	40	20	20	20
RAINFALL (mm)	Approximate Annual Rainfall: 750-1000			
GEOLOGY	Permian		Mudstone, Siltstone, Sandstone	
TOPOGRAPHY	Protected Forested Slopes and Associated Coastal Plains and Headlands			
Position	Protected Forested Slopes	Sandy Wooded Flats	Drainage Flats	Coastal Headlands
Typical Slope(°)	10-20	5	5	60
NATIVE VEGETATION Structure	(Tall) Open Forest	Woodland	Closed Heath	Closed Heath/ Low Open Woodland
Floristic Association (See Appendix 1 for common names)	<u>Eucalyptus obliqua</u> <u>Exocarpos cupressiformis</u> <u>Acacia verticillata</u> <u>Gahnia grandis</u> <u>Zieria arborescens</u> <u>Pomaderris apetala</u> <u>Pteridium esculentum</u> <u>Goodenia ovata</u>	<u>Eucalyptus viminalis</u> <u>Eucalyptus globulus</u> <u>Pteridium esculentum</u> <u>Leucopogon parviflorus</u> <u>Aotus ericoides</u> <u>Olearia stellulata</u> <u>Leptospermum scoparium</u> <u>Cassytha pubescens</u> <u>Pelargonium sp.</u>	<u>Melaleuca squarrosa</u> <u>Leptospermum scoparium</u> <u>Hakea teretifolia</u> <u>Leptocarpus tenax</u> <u>Sprengelia incarnata</u> <u>Bauera rubioides</u> <u>Epacris lanuginosa</u> <u>Lepidosperma filiforme</u> <u>Acacia sp.</u> <u>Empodisma minus</u> <u>Gymnoschoenus sphaerocephalus</u>	<u>Banksia marginata</u> <u>Casuarina monilifera</u> <u>Leptospermum scoparium</u> <u>Dillwynia glaberrima</u> <u>Hakea teretifolia</u> <u>Lepidosperma concavum</u> <u>Leucopogon collinus</u> <u>Hibbertia riparia</u> <u>Lindsaya linearis</u> <u>Stylidium graminifolium</u> <u>Boronia pilosa</u> <u>Eucalyptus tenuiramis</u> <u>Restio complanatus</u>
SOIL				
Surface (A) Texture	Clay Loam	Loamy Sand/Sand	Clay Loam	Loam
B Horizon(subsoil) Colour (moist) Texture and primary profile form	Deep heavy clay - yellowish brown (10 YR 5/8) with light grey (10 YR 7/2) mottle . Duplex.	Deep sand - greyish brown (10 YR 5/2) - sometimes with a black (10 YR 2/1) hardpan at depth. Uniform.	Deep clay- Brownish yellow (10 YR 6/8) over light grey (10 YR 7/2) . Gradational.	Very shallow clay loam- light brownish grey (10 YR 6/2) on bedrock. Gradational .
Permeability	Moderate	High	Low/Moderate	High
Typical depth(m)	>1.40	>1.40	>1.40	0.25
LAND USE	Forestry, Nature Conservation, Recreation, Grazing, Subdivision			
HAZARDS	Moderate/High Sheet, Rill, Gully Erosion		Waterlogging/Flooding	Moderate/High Sheet, Rill, Gully Erosion

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WATERFALL BAY

This land system is located near Eaglehawk Neck and consists of protected forested slopes and associated coastal plains and headlands formed on sediments of the Parmeener Supergroup.

Protected forested slopes contain a deep (>1.40 m), duplex soil consisting of a clay loam surface over a yellowish brown, heavy clay with a light grey mottle. This supports an open forest to tall, open forest dominated by *Eucalyptus obliqua* with a dense understorey of *Exocarpos cupressiformis*, *Acacia verticillata*, *Gahnia grandis*, *Zieria arborescens*, *Pomaderris apetala*, *Pteridium esculentum* and *Goodenia ovata*.

Sandy, forested flats have a deep (>1.40 m), uniform, greyish brown sand which may contain a black hardpan at depth. This supports a woodland dominated by *Eucalyptus viminalis* and *Eucalyptus globulus* with a heathy understorey of *Pteridium esculentum*, *Leucopogon parviflorus*, *Aotus ericoides*, *Olearia stellulata*, *Leptospermum scoparium*, *Cassytha pubescens* and *Pelargonium asperum*.

Drainage flats contain a deep (>1.40 m), gradational soil with a clay loam surface over a brownish yellow to light grey clay. This supports a closed heath/sedgeland dominated by *Melaleuca squarrosa*, *Leptospermum scoparium*, *Hakea teretifolia*, *Leptocarpus tenax*, *Sprengelia incarnata*, *Bauera rubioides*, *Epacris lanuginosa*, *Lepidosperma filiforme*, *Acacia sp.*, *Empodisma minus* and *Gymnoschoenus sphaerocephalus*.

Coastal headlands contain a very shallow (0.25 m), gradational soil consisting of a loam surface over a light brownish-grey clay loam developed on bedrock. This supports a closed heath dominated by *Casuarina monilifera*, *Leptospermum scoparium*, *Dillwynia glaberrima*, *Hakea teretifolia*, *Lepidosperma concavum*, *Leucopogon collinus*, *Hibbertia riparia*, *Lindsaya linearis*, *Stylidium graminifolium*, *Boronia pilosa*, *Eucalyptus tenuiramis* and *Restio complanatus*.

The land system is utilised for forestry, recreation, nature conservation, grazing and subdivision. It is particularly prone to sheet, rill and gully erosion. Waterlogging and flooding hazards are associated with the drainage flats.