

EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 3: Damp Sands Herb-rich Woodland

Description:

A low, grassy or bracken-dominated eucalypt forest or open woodland to 15 m tall with a large shrub layer and ground layer rich in herbs, grasses, and orchids. Occurs mainly on flat or undulating areas on moderately fertile, relatively well-drained, deep sandy or loamy topsoils over heavier subsoils (duplex soils).

Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	70 cm	15 / ha

Tree Canopy Cover:

%cover	Character Species	Common Name
15%	<i>Eucalyptus viminalis</i>	Manna Gum
	<i>Eucalyptus ovata</i>	Swamp Gum

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	1	10%	T
Medium Shrub	3	10%	MS
Small Shrub	1	1%	SS
Prostrate Shrub	1	1%	PS
Large Herb	2	5%	LH
Medium Herb	7	15%	MH
Small or Prostrate Herb	4	5%	SH
Large Tufted Graminoid	2	10%	LTG
Large Non-tufted Graminoid	2	10%	LNG
Medium to Small Tufted Graminoid	4	15%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Ground Fern	1	10%	GF
Bryophytes/Lichens	na	10 %	BL

EVC 3: Damp Sands Herb-rich Woodland - Warrnambool Plain bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia melanoxylon</i>	Blackwood
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Banksia marginata</i>	Silver Banksia
MS	<i>Epacris impressa</i>	Common Heath
MS	<i>Acacia verticillata</i>	Prickly Moses
SS	<i>Hibbertia stricta s.l.</i>	Upright Guinea-flower
PS	<i>Astroloma humifusum</i>	Cranberry Heath
PS	<i>Acrotriche serrulata</i>	Honey-pots
LH	<i>Senecio glomeratus</i>	Annual Fireweed
LH	<i>Wahlenbergia gymnoclada</i>	Naked Bluebell
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Hypericum gramineum</i>	Small St John's Wort
MH	<i>Lagenophora stipitata</i>	Common Bottle-daisy
SH	<i>Oxalis exilis</i>	Shady Wood-sorrel
SH	<i>Hydrocotyle laxiflora</i>	Stinking Pennywort
SH	<i>Kennedia prostrata</i>	Running Postman
SH	<i>Solenogyne dominii</i>	Smooth Solenogyne
LTG	<i>Juncus procerus</i>	Tall Rush
LTG	<i>Deyeuxia quadriseta</i>	Reed Bent-grass
LNG	<i>Lepidosperma longitudinale</i>	Pithy Sword-sedge
LNG	<i>Baumea rubiginosa s.l.</i>	Soft Twig-rush
MTG	<i>Poa rodwayi</i>	Velvet Tussock-grass
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MTG	<i>Dianella tasmanica</i>	Tasman Flax-lily
MTG	<i>Themeda triandra</i>	Kangaroo Grass
MNG	<i>Microlaena stipoides var. stipoides</i>	Weeping Grass
SC	<i>Comesperma volubile</i>	Love Creeper

Recruitment:
Continuous

Organic Litter:
40 % cover

Logs:
15 m/0.1 ha.

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LH	<i>Cirsium vulgare</i>	Spear Thistle	high	high
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Centaureum erythraea</i>	Common Centaury	low	low
MH	<i>Anagallis arvensis</i>	Pimpernel	low	low
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 8: Wet Heathland

Description:

A low, generally treeless heathland, although sometimes emergent eucalypts may be present. Occurs on lower slopes, flats or depressions, which are infertile and subjected to prolonged water logging. Understorey is often dominated a range of sedges, grasses and shrubs.

Life forms:

Life form	#Spp	%Cover	LF code
Medium Shrub	7	40%	MS
Small Shrub	6	15%	SS
Prostrate Shrub	1	5%	PS
Medium Herb	3	5%	MH
Small Herb	2	1%	SH
Large Tufted Graminoid	2	15%	LTG
Medium to Small Tufted Graminoid	2	5%	MTG
Medium to Tiny Non-tufted Graminoid	3	10%	MNG
Ground Fern	2	5%	GF
Bryophytes/Lichens	na	20%	BL

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Melaleuca squarrosa</i>	Scented Paperbark
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Banksia marginata</i>	Silver Banksia
MS	<i>Epacris impressa</i>	Common Heath
SS	<i>Leucopogon australis</i>	Spike Beard-heath
SS	<i>Tetralochea ciliata</i>	Pink-bells
SS	<i>Dillwynia glaberrima</i>	Smooth Parrot-pea
SS	<i>Amperea xiphoclada</i> var. <i>xiphoclada</i>	Broom Spurge
PS	<i>Xanthosia dissecta</i> s.l.	Cut-leaf Xanthosia
PS	<i>Acrotriche serrulata</i>	Honey-pots
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Selaginella uliginosa</i>	Swamp Selaginella
MH	<i>Drosera peltata</i> ssp. <i>auriculata</i>	Tall Sundew
MH	<i>Acianthus</i> spp.	Mosquito Orchid
SH	<i>Goodenia lanata</i>	Trailing Goodenia
LTG	<i>Xanthorrhoea australis</i>	Austral Grass-tree
LTG	<i>Gymnoschoenus sphaerocephalus</i>	Button Grass
LTG	<i>Gahnia sieberiana</i>	Red-fruit Saw-sedge
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
MTG	<i>Lepidosperma filiforme</i>	Common Rapier-sedge
MTG	<i>Stylidium graminifolium</i> s.s.	Grass Trigger-plant
MNG	<i>Empodisma minus</i>	Spreading Rope-rush
MNG	<i>Schoenus lepidosperma</i>	Slender Bog-sedge
MNG	<i>Tetrarrhena distichophylla</i>	Hairy Rice-grass
MNG	<i>Hypolaena fastigiata</i>	Tassel Rope-rush
GF	<i>Lindsaea linearis</i>	Screw Fern
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Lycopodium deuterodensum</i>	Bushy Clubmoss
SC	<i>Cassytha pubescens</i> s.s.	Downy Dodder-laurel

Recruitment:

Episodic/Fire. Desirable period between disturbances is 30 years.

Organic Litter:

20% cover

Weediness:

There are no consistent weeds in this EVC.

EVC 8: Wet Heathland - Warrnambool Plain bioregion

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 10: Estuarine Wetland

Description:

Grows on anaerobic peat-rich muds on the edges of estuarine waterbodies such as creeks, rivers and lagoons with intermediate salinity conditions. Vegetation is determined by fluctuating salinity, which varies in time from occasionally fresh to brackish or occasionally saline according to river flood and marine tide events. Dominated by graminoids and halophytic herbs and often fringed by a tall scrub layer of Swamp Paperbark *Melaleuca ericifolia* at the landward edge.

Life Forms:

Life form	#Spp	%Cover	LF code
Medium Herb	2	25%	MH
Small or Prostrate Herb	1	10%	SH
Large Tufted Graminoid	1	10%	LTG
Medium to Small Tufted Graminoid	1	5%	MTG
Medium to Tiny Non-tufted Graminoid	3	20%	MNG
Total understorey projective foliage cover		70%	

LF Code	Species typical of at least part of EVC range	Common Name
MH	<i>Samolus repens</i>	Creeping Brookweed
MH	<i>Sarcocornia quinqueflora</i> ssp. <i>quinqueflora</i>	Beaded Glasswort
SH	<i>Leptinella longipes</i>	Coast Cotula
LTG	<i>Gahnia filum</i>	Chaffy Saw-sedge
LNG	<i>Juncus kraussii</i> ssp. <i>australiensis</i>	Sea Rush
MTG	<i>Poa poiformis</i>	Coast Tussock-grass
MNG	<i>Distichlis distichophylla</i>	Australian Salt-grass
MNG	<i>Schoenoplectus pungens</i>	Sharp Club-sedge
MNG	<i>Apodasmia brownii</i>	Coarse Twine-rush
MNG	<i>Baumea juncea</i>	Bare Twig-sedge
SC	<i>Calystegia sepium</i>	Large Bindweed

Recruitment:

Episodic/Flood: desirable period of disturbance is every five years

Organic Litter:

10% cover

Weediness:

There are no consistent weeds in this EVC.

EVC 10: Estuarine Wetland - Warrnambool Plain bioregion

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 16: Lowland Forest

Description:

Open forest to 25 m tall characterised by the diversity of species and lifeforms in each stratum. Includes a variety of heathy understorey shrubs. It grows on a wide variety of geology and soils.

Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	70 cm	20 / ha

Tree Canopy Cover:

%cover	Character Species	Common Name
30%	<i>Eucalyptus baxteri</i> s.l.	Brown Stringybark
	<i>Eucalyptus obliqua</i>	Messmate Stringybark
	<i>Eucalyptus ovata</i>	Swamp Gum

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	2	10%	T
Medium Shrub	8	25%	MS
Small Shrub	3	5%	SS
Prostrate Shrub	1	1%	PS
Large Herb	2	1%	LH
Medium Herb	6	10%	MH
Small or Prostrate Herb	2	5%	SH
Large Tufted Graminoid	2	5%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	3	5%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Ground Fern	2	10%	GF
Scrambler or Climber	2	1%	SC
Bryophytes/Lichens	na	10%	BL
Total understorey projective foliage cover		80%	

EVC 16: Lowland Forest - Warrnambool Plain bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia melanoxylon</i>	Blackwood
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Banksia marginata</i>	Silver Banksia
MS	<i>Acacia verticillata</i>	Prickly Moses
MS	<i>Acacia mucronata</i> ssp. <i>longifolia</i>	Narrow-leaf Wattle
SS	<i>Tetradlea ciliata</i>	Pink-bells
SS	<i>Amperea xiphoclada</i> var. <i>xiphoclada</i>	Broom Spurge
PS	<i>Acrotriche serrulata</i>	Honey-pots
LH	<i>Pterostylis longifolia</i> s.l.	Tall Greenhood
LH	<i>Dipodium punctatum</i> s.l.	Hyacinth Orchid
MH	<i>Viola hederacea</i> sensu Willis (1972)	Ivy-leaf Violet
MH	<i>Drosera peltata</i> ssp. <i>auriculata</i>	Tall Sundew
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Helichrysum scorpioides</i>	Button Everlasting
SH	<i>Goodenia lanata</i>	Trailing Goodenia
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
LTG	<i>Gahnia sieberiana</i>	Red-fruit Saw-sedge
LTG	<i>Lepidosperma elatius</i>	Tall Sword-sedge
LNG	<i>Tetrarrhena juncea</i>	Forest Wire-grass
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
MTG	<i>Lepidosperma laterale</i>	Variable Sword-sedge
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Lindsaea linearis</i>	Screw Fern
SC	<i>Cassytha pubescens</i> s.s.	Downy Dodder-laurel
SC	<i>Billardiera scandens</i>	Common Apple-berry
SC	<i>Clematis aristata</i>	Mountain Clematis

Recruitment:

Continuous

Organic Litter:

40% cover

Logs:

20 m/0.1 ha.

Weediness:

There are no consistent weeds in this EVC.

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 18: Riparian Forest

Description:

A tall forest to 30 m tall along river banks and associated alluvial terraces with occasional occurrences in the heads of gullies leading into creeks and rivers. Soils are fertile alluvium, regularly inundated and permanently moist. Dominated by tall eucalypts, but also has an open to sparse secondary tree layer of wattles and scattered dense patches of shrubs, ferns, grasses and herbs.

Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	80 cm	20 / ha

Tree Canopy Cover:

%cover	Character Species	Common Name
40%	<i>Eucalyptus viminalis</i>	Manna Gum

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	3	15%	T
Medium Shrub	4	15%	MS
Large Herb	2	5%	LH
Medium Herb	4	10%	MH
Small or Prostrate Herb	2	5%	SH
Large Tufted Graminoid	3	10%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Tiny Non-tufted Graminoid	1	1%	MNG
Ground Fern	5	30%	GF
Tree Fern	1	5%	TRF
Epiphyte	2	1%	EP
Scrambler or Climber	2	5%	SC
Bryophytes/Lichens	na	20%	BL

EVC 18: Riparian Forest - Warrnambool Plain bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia melanoxylon</i>	Blackwood
T	<i>Pomaderris aspera</i>	Hazel Pomaderris
T	<i>Pittosporum bicolor</i>	Banyalla
MS	<i>Coprosma quadrifida</i>	Prickly Currant-bush
MS	<i>Melaleuca squarrosa</i>	Scented Paperbark
MS	<i>Hedycarya angustifolia</i>	Austral Mulberry
MS	<i>Solanum aviculare</i>	Kangaroo Apple
LH	<i>Urtica incisa</i>	Scrub Nettle
LH	<i>Senecio minimus</i>	Shrubby Fireweed
MH	<i>Scutellaria humilis</i>	Dwarf Skullcap
MH	<i>Lobelia anceps</i>	Angled Lobelia
MH	<i>Australina pusilla ssp. muelleri</i>	Shade Nettle
MH	<i>Hydrocotyle hirta</i>	Hairy Pennywort
SH	<i>Lobelia pedunculata s.l.</i>	Matted Pratia
SH	<i>Oxalis exilis</i>	Shady Wood-sorrel
SH	<i>Dichondra repens</i>	Kidney-weed
SH	<i>Callitriche muelleri</i>	Round Water-starwort
LTG	<i>Gahnia sieberiana</i>	Red-fruit Saw-sedge
LTG	<i>Carex appressa</i>	Tall Sedge
LTG	<i>Lepidosperma laterale var. majus</i>	Variable Sword-sedge
LTG	<i>Baloskion tetraphyllum ssp. tetraphyllum</i>	Tassel Cord-rush
LNG	<i>Tetrarrhena juncea</i>	Forest Wire-grass
MTG	<i>Juncus pauciflorus</i>	Loose-flower Rush
MTG	<i>Isolepis wakefieldiana</i>	Tufted Club-sedge
MNG	<i>Microlaena stipoides var. stipoides</i>	Weeping Grass
GF	<i>Blechnum nudum</i>	Fishbone Water-fern
GF	<i>Hypolepis rugosula</i>	Ruddy Ground-fern
GF	<i>Gleichenia microphylla</i>	Scrambling Coral-fern
GF	<i>Blechnum wattsii</i>	Hard Water-fern
TRF	<i>Todea barbara</i>	Austral King-fern
TRF	<i>Dicksonia antarctica</i>	Soft Tree-fern
EP	<i>Microsorium pustulatum ssp. pustulatum</i>	Kangaroo Fern
EP	<i>Hymenophyllum cupressiforme</i>	Common Filmy Fern
EP	<i>Amyema pendula</i>	Drooping Mistletoe
SC	<i>Parsonsia brownii</i>	Twining Silkpod
SC	<i>Clematis aristata</i>	Mountain Clematis
SC	<i>Calystegia marginata</i>	Forest Bindweed

Recruitment:

Continuous

Organic Litter:

50 % cover

Logs:

30 m/0.1 ha.

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MS	<i>Rubus fruticosus ssp. agg.</i>	Blackberry	high	high

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 23: Herb-rich Foothill Forest

Description:

Occurs on relatively fertile, moderately well-drained soils on an extremely wide range of geological types and in areas of moderate to high rainfall. Occupies easterly and southerly aspects mainly on lower slopes and in gullies. A medium to tall open forest or woodland to 25 m tall with a small tree layer over a sparse to dense shrub layer. A high cover and diversity of herbs and grasses in the ground layer characterise this EVC.

Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	70 cm	20 / ha

Tree Canopy Cover:

%cover	Character Species	Common Name
40%	<i>Eucalyptus obliqua</i> <i>Eucalyptus ovata</i>	Messmate Stringybark Swamp Gum

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	1	5%	T
Medium Shrub	5	15%	MS
Small Shrub	2	1%	SS
Prostrate Shrub	2	5%	PS
Large Herb	1	1%	LH
Medium Herb	10	20%	MH
Small or Prostrate Herb	3	5%	SH
Large Tufted Graminoid	3	10%	LTG
Large Non-tufted Graminoid	2	10%	LNG
Medium to Small Tufted Graminoid	5	20%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Ground Fern	3	10%	GF
Scrambler or Climber	2	1%	SC
Bryophytes/Lichens	na	20%	BL

EVC 23: Herb-rich Foothill Forest - Warrnambool Plain bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia melanoxylon</i>	Blackwood
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Banksia marginata</i>	Silver Banksia
MS	<i>Acacia verticillata</i>	Prickly Moses
MS	<i>Acacia mucronata ssp. longifolia</i>	Narrow-leaf Wattle
SS	<i>Tetralochea ciliata</i>	Pink-bells
SS	<i>Amperea xiphoclada var. xiphoclada</i>	Broom Spurge
PS	<i>Acrotriche serrulata</i>	Honey-pots
PS	<i>Bossiaea prostrata</i>	Creeping Bossiaea
PS	<i>Acrotriche prostrata</i>	Trailing Ground-berry
LH	<i>Pterostylis longifolia s.l.</i>	Tall Greenhood
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Drosera peltata ssp. auriculata</i>	Tall Sundew
MH	<i>Helichrysum scorpioides</i>	Button Everlasting
MH	<i>Viola hederacea sensu Entwistle (1996)</i>	Ivy-leaf Violet
SH	<i>Goodenia lanata</i>	Trailing Goodenia
SH	<i>Lobelia pedunculata s.l.</i>	Matted Pratia
SH	<i>Oxalis exilis</i>	Shady Wood-sorrel
SH	<i>Galium ciliare</i>	Hairy Bedstraw
LTG	<i>Lepidosperma laterale var. majus</i>	Variable Sword-sedge
LTG	<i>Austrostipa pubinodis</i>	Tall Spear-grass
LNG	<i>Tetrarrhena juncea</i>	Forest Wire-grass
MTG	<i>Dianella revoluta s.s.</i>	Black-anther Flax-lily
MTG	<i>Lomandra filiformis ssp. filiformis</i>	Wattle Mat-rush
MTG	<i>Poa sieberiana var. hirtella</i>	Grey Tussock-grass
MTG	<i>Lomandra filiformis ssp. coriacea</i>	Wattle Mat-rush
MNG	<i>Microlaena stipoides var. stipoides</i>	Weeping Grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Lindsaea linearis</i>	Screw Fern
GF	<i>Adiantum aethiopicum</i>	Common Maidenhair
SC	<i>Cassytha pubescens s.s.</i>	Downy Dodder-laurel
SC	<i>Billardiera scandens</i>	Common Apple-berry
SC	<i>Clematis aristata</i>	Mountain Clematis

Recruitment:

Continuous

Organic Litter:

40 % cover

Logs:

20 m/0.1 ha.

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 45: Shrubby Foothill Forest

Description:

Open eucalypt forest to 25 m tall occurring on exposed aspects and slight to moderate slopes. The understorey is characterised by a distinctive middle strata dominated by a diversity of narrow-leaved shrubs and a paucity of ferns, graminoids and herbs in the ground stratum.

Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	70 cm	20 / ha

Tree Canopy Cover:

%cover	Character Species	Common Name
40%	<i>Eucalyptus obliqua</i>	Messmate Stringybark
	<i>Eucalyptus baxteri</i> s.l.	Brown Stringybark
	<i>Eucalyptus cypellocarpa</i>	Mountain Grey Gum
	<i>Eucalyptus ovata</i>	Swamp Gum

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	1	5%	T
Medium Shrub	7	40%	MS
Small Shrub	2	10%	SS
Medium Herb	4	5%	MH
Small or Prostrate Herb	1	1%	SH
Large Tufted Graminoid	2	10%	LTG
Large Non-tufted Graminoid	1	10%	LNG
Medium to Small Tufted Graminoid	2	5%	MTG
Medium to Tiny Non-tufted Graminoid	1	1%	MNG
Ground Fern	3	10%	GF
Scrambler or Climber	2	1%	SC
Bryophytes/Lichens	na	10%	BL

LF Code

Species typical of at least part of EVC range

T	<i>Notelaea ligustrina</i>
MS	<i>Goodenia ovata</i>
MS	<i>Acacia verticillata</i>
MS	<i>Leptospermum continentale</i>
MS	<i>Acacia mucronata</i> ssp. <i>longifolia</i>
SS	<i>Amperea xiphoclada</i> var. <i>xiphoclada</i>
SS	<i>Pultenaea stricta</i>
SS	<i>Tetratheca ciliata</i>
MH	<i>Gonocarpus tetragynus</i>
MH	<i>Viola hederacea</i> sensu <i>Willis (1972)</i>
MH	<i>Drosera peltata</i> ssp. <i>auriculata</i>
MH	<i>Gonocarpus humilis</i>
SH	<i>Goodenia lanata</i>
LTG	<i>Gahnia sieberiana</i>
LTG	<i>Lepidosperma laterale</i> var. <i>majus</i>
LTG	<i>Lomandra longifolia</i>
LNG	<i>Tetrarrhena juncea</i>
MNG	<i>Tetrarrhena distichophylla</i>
MNG	<i>Poa tenera</i>
GF	<i>Pteridium esculentum</i>
GF	<i>Calochlaena dubia</i>
GF	<i>Lindsaea linearis</i>
SC	<i>Cassytha pubescens</i> s.s.
SC	<i>Billardiera scandens</i>
SC	<i>Clematis aristata</i>

Common Name

Privet Mock-olive
Hop Goodenia
Prickly Moses
Prickly Tea-tree
Narrow-leaf Wattle
Broom Spurge
Rigid Bush-pea
Pink-bells
Common Raspwort
Ivy-leaf Violet
Tall Sundew
Shade Raspwort
Trailing Goodenia
Red-fruit Saw-sedge
Variable Sword-sedge
Spiny-headed Mat-rush
Forest Wire-grass
Hairy Rice-grass
Slender Tussock-grass
Austral Bracken
Common Ground-fern
Screw Fern
Downy Dodder-laurel
Common Apple-berry
Mountain Clematis

EVC 45: Shrubby Foothill Forest - Warrnambool Plain bioregion

Recruitment:

Episodic/Fire. Desirable period between disturbances is 30 years.

Organic Litter:

40 % cover

Logs:

20 m/0.1 ha.

Weediness:

There are no consistent weeds in this EVC.

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 48: Heathy Woodland

Description:

Spans a variety of geologies but is generally associated with nutrient-poor soils including deep uniform sands (aeolian or outwash) and Tertiary sand/clay which has been altered to form quartzite gravel. Eucalypt-dominated low woodland to 10 m tall lacking a secondary tree layer and generally supporting a diverse array of narrow or ericoid-leaved shrubs except where frequent fire has reduced this to a dense cover of bracken. Geophytes and annuals can be quite common but the ground cover is normally fairly sparse.

Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	60 cm	15 / ha

Tree Canopy Cover:

%cover	Character Species	Common Name
15%	<i>Eucalyptus obliqua</i>	Messmate Stringybark

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Medium Shrub	7	30%	MS
Small Shrub	4	5%	SS
Prostrate Shrub	2	1%	PS
Medium Herb	4	10%	MH
Small or Prostrate Herb	1	1%	SH
Large Tufted Graminoid	1	5%	LTG
Large Non-tufted Graminoid	1	1%	LNG
Medium to Small Tufted Graminoid	3	5%	MTG
Medium to Tiny Non-tufted Graminoid	1	5%	MNG
Ground Fern	2	5%	GF
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C
Total understorey projective foliage cover		75%	

EVC 48: Heathy Woodland - Warrnambool Plain bioregion

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Banksia marginata</i>	Silver Banksia
MS	<i>Epacris impressa</i>	Common Heath
MS	<i>Leptospermum myrsinoides</i>	Heath Tea-tree
SS	<i>Tetratheca ciliata</i>	Pink-bells
SS	<i>Platylobium obtusangulum</i>	Common Flat-pea
SS	<i>Dillwynia glaberrima</i>	Smooth Parrot-pea
SS	<i>Amperea xiphoclada</i> var. <i>xiphoclada</i>	Broom Spurge
PS	<i>Acrotriche serrulata</i>	Honey-pots
PS	<i>Xanthosia dissecta</i> s.l.	Cut-leaf Xanthosia
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Viola hederacea</i> sensu Willis (1972)	Ivy-leaf Violet
MH	<i>Drosera peltata</i> ssp. <i>peltata</i>	Pale Sundew
MH	<i>Burchardia umbellata</i>	Milkmaids
SH	<i>Goodenia lanata</i>	Trailing Goodenia
LTG	<i>Xanthorrhoea australis</i>	Austral Grass-tree
LNG	<i>Tetrarrhena juncea</i>	Forest Wire-grass
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
MTG	<i>Patersonia fragilis</i>	Short Purple-flag
MTG	<i>Lepidosperma concavum</i>	Sandhill Sword-sedge
MTG	<i>Dianella revoluta</i> s.l.	Black-anther Flax-lily
MNG	<i>Empodisma minus</i>	Spreading Rope-rush
MNG	<i>Tetrarrhena distichophylla</i>	Hairy Rice-grass
MNG	<i>Hypolaena fastigiata</i>	Tassel Rope-rush
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Lindsaea linearis</i>	Screw Fern
SC	<i>Cassytha glabella</i>	Slender Dodder-laurel

Recruitment:

Episodic/Fire. Desirable period between disturbances is 20 years.

Organic Litter:

40 % cover

Logs:

15 m/0.1 ha.

Weediness:

There are no consistent weeds in this EVC.

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 53: Swamp Scrub

Description:

Closed scrub to 8 m tall at low elevations on alluvial deposits along streams or on poorly drained sites with high nutrient and water availability. Soils vary from organic loams to fine silts and peats which are inundated during the wetter months of the year and is dominated by either Woolly Tea-tree *Leptospermum lanigerum* and/or Paperbarks *Melaleuca* species which often form a dense impenetrable thicket, out-competing other species. Emergent trees (e.g. Swamp Gum *Eucalyptus ovata*) may sometimes be present. Where light penetrates to ground level, a moss/lichen/liverwort herbaceous ground cover is often present.

Canopy Cover:

%cover	Character Species	Common Name
50%	<i>Leptospermum lanigerum</i>	Woolly Tea-tree
	<i>Melaleuca squarrosa</i>	Scented Paperbark
	<i>Acacia melanoxylon</i>	Blackwood

Understorey:

Life form	#Spp	%Cover	LF code
Medium Shrub	2	10%	MS
Large Herb	3	5%	LH
Medium Herb	1	5%	MH
Small or Prostrate Herb	1	5%	SH
Large Tufted Graminoid	3	30%	LTG
Large Non-tufted Graminoid	1	10%	LNG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Ground Fern	2	5%	GF
Scrambler or Climber	1	5%	SC
Bryophytes/Lichens	na	20%	BL

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Leptospermum scoparium</i>	Manuka
MS	<i>Melaleuca decussata</i>	Totem-poles
SS	<i>Leucopogon virgatus</i>	Common Beard-heath
LH	<i>Persicaria decipiens</i>	Slender Knotweed
LH	<i>Urtica incisa</i>	Scrub Nettle
LH	<i>Senecio odoratus</i> var. <i>odoratus</i>	Scented Groundsel
MH	<i>Hydrocotyle pterocarpa</i>	Wing Pennywort
SH	<i>Dichondra repens</i>	Kidney-weed
LTG	<i>Gahnia trifida</i>	Coast Saw-sedge
LTG	<i>Gahnia sieberiana</i>	Red-fruit Saw-sedge
LTG	<i>Gahnia clarkei</i>	Tall Saw-sedge
LTG	<i>Carex appressa</i>	Tall Sedge
LNG	<i>Phragmites australis</i>	Common Reed
MNG	<i>Schoenus lepidosperma</i>	Slender Bog-sedge
GF	<i>Blechnum minus</i>	Soft Water-fern
SC	<i>Muehlenbeckia adpressa</i>	Climbing Lignum

Recruitment:

Continuous

Organic Litter:

40 % cover

Weediness:

There are no consistent weeds in this EVC.

EVC 53: Swamp Scrub - Warrnambool Plain bioregion

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 55: Plains Grassy Woodland

Description:

An open, eucalypt woodland to 15 m tall. Occupies poorly drained, fertile soils on flat or gently undulating plains at low elevations. The understorey consists of a few sparse shrubs over a species-rich grassy and herbaceous ground layer.

Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	80 cm	8 / ha

Tree Canopy Cover:

%cover	Character Species	Common Name
10%	<i>Eucalyptus camaldulensis</i>	River Red Gum

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	1	5%	T
Medium Shrub	3	10%	MS
Small Shrub	2	1%	SS
Prostrate Shrub	1	1%	PS
Large Herb	3	5%	LH
Medium Herb	8	15%	MH
Small or Prostrate Herb	3	5%	SH
Large Tufted Graminoid	2	5%	LTG
Medium to Small Tufted Graminoid	12	45%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Acacia pycnantha</i>	Golden Wattle
MS	<i>Acacia paradoxa</i>	Hedge Wattle
SS	<i>Pimelea humilis</i>	Common Rice-flower
PS	<i>Astroloma humifusum</i>	Cranberry Heath
PS	<i>Bossiaea prostrata</i>	Creeping Bossiaea
MH	<i>Oxalis perennans</i>	Grassland Wood-sorrel
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Acaena echinata</i>	Sheep's Burr
SH	<i>Dichondra repens</i>	Kidney-weed
SH	<i>Hydrocotyle laxiflora</i>	Stinking Pennywort
LTG	<i>Austrostipa mollis</i>	Supple Spear-grass
LTG	<i>Austrostipa bigeniculata</i>	Kneed Spear-grass
MTG	<i>Themeda triandra</i>	Kangaroo Grass
MTG	<i>Elymus scaber</i> var. <i>scaber</i>	Common Wheat-grass
MTG	<i>Austrodanthonia setacea</i>	Bristly Wallaby-grass
MTG	<i>Austrodanthonia racemosa</i> var. <i>racemosa</i>	Stiped Wallaby-grass
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass

Recruitment:

Continuous

Organic Litter:

10 % cover

Logs:

10 m/0.1 ha.

EVC 55: Plains Grassy Woodland - Warrnambool Plain bioregion

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MS	<i>Lycium ferocissimum</i>	African Box-thorn	high	high
LH	<i>Cirsium vulgare</i>	Spear Thistle	high	high
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
LH	<i>Plantago lanceolata</i>	Ribwort	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MTG	<i>Romulea rosea</i>	Onion Grass	high	low
MTG	<i>Briza minor</i>	Lesser Quaking-grass	high	low
MTG	<i>Briza maxima</i>	Large Quaking-grass	high	low

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 83: Swampy Riparian Woodland

Woodland to 15 m tall generally occupying low energy streams of the foothills and plains. The lower strata are variously locally dominated by a range of large and medium shrub species on the stream levees in combination with large tussock grasses and sedges in the ground layer.

Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	70 cm	10 / ha

Tree Canopy Cover:

%cover	Character Species	Common Name
15%	<i>Eucalyptus ovata</i>	Swamp Gum

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	2	10%	T
Medium Shrub	2	5%	MS
Large Herb	5	10%	LH
Medium Herb	9	20%	MH
Small or Prostrate Herb	4	10%	SH
Large Tufted Graminoid	5	20%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	8	20%	MTG
Medium to Tiny Non-tufted Graminoid	2	1%	MNG
Ground Fern	1	1%	GF
Scrambler or Climber	2	5%	SC
Bryophytes/Lichens	na	20%	BL

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia melanoxylon</i>	Blackwood
T	<i>Acacia mearnsii</i>	Black Wattle
MS	<i>Olearia glandulosa</i>	Swamp Daisy-bush
MS	<i>Acacia verticillata</i> ssp. <i>verticillata</i>	Prickly Moses
MS	<i>Leptospermum lanigerum</i>	Woolly Tea-tree
MS	<i>Ozothamnus rosmarinifolius</i>	Rosemary Everlasting
LH	<i>Senecio minimus</i>	Shrubby Fireweed
LH	<i>Persicaria praetermissa</i>	Spotted Knotweed
LH	<i>Epilobium billardierianum</i>	Variable Willow-herb
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
MH	<i>Geranium potentilloides</i>	Cinquefoil Cranesbill
MH	<i>Oxalis exilis</i>	Shady Wood-sorrel
MH	<i>Euchiton involucratus</i> s.l.	Star Cudweed
SH	<i>Leptinella reptans</i> s.l.	Creeping Cotula
SH	<i>Hydrocotyle sibthorpioides</i>	Shining Pennywort
SH	<i>Hydrocotyle hirta</i>	Hairy Pennywort
SH	<i>Dichondra repens</i>	Kidneyweed
LTG	<i>Juncus procerus</i>	Tall Rush
LTG	<i>Cyperus lucidus</i>	Leafy Flat-sedge
LTG	<i>Juncus pallidus</i>	Pale Rush
LTG	<i>Poa labillardierei</i>	Common Tussock-grass
MTG	<i>Juncus planifolius</i>	Broad-leaf Rush
MTG	<i>Juncus pauciflorus</i>	Loose-flower Rush
MTG	<i>Triglochin procerum</i> s.l.	Water Ribbons
MNG	<i>Hemarthria uncinata</i> var. <i>uncinata</i>	Mat Grass
MNG	<i>Triglochin striatum</i>	Streaked Arrowgrass
GF	<i>Pteridium esculentum</i>	Austral Bracken
SC	<i>Calystegia sepium</i>	Large Bindweed

EVC 83: Swampy Riparian Woodland - Warrnambool Plain bioregion

Recruitment:

Continuous

Organic Litter:

20 % cover

Logs:

20 m/0.1 ha.

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MS	<i>Rubus sp. aff. armeniacus</i>	Blackberry	high	high
LH	<i>Sonchus asper s.l.</i>	Rough Sow-thistle	high	low
LH	<i>Cirsium vulgare</i>	Spear Thistle	high	high
LH	<i>Plantago lanceolata</i>	Ribwort	high	low
LH	<i>Parentucellia viscosa</i>	Yellow Bartsia	high	low
MH	<i>Lotus corniculatus</i>	Bird's-foot Trefoil	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Acetosella vulgaris</i>	Sheep Sorrel	high	low
MH	<i>Leontodon taraxacoides ssp. taraxacoides</i>	Hairy Hawkbit	high	low
MH	<i>Anagallis arvensis</i>	Pimpernel	high	low
SH	<i>Trifolium repens var. repens</i>	White Clover	high	low
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MTG	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	high	high
MTG	<i>Lolium perenne</i>	Perennial Rye-grass	high	low
MTG	<i>Juncus articulatus</i>	Jointed Rush	high	high
MTG	<i>Bromus hordeaceus ssp. hordeaceus</i>	Soft Brome	high	low
MNG	<i>Vulpia spp.</i>	Fescue	high	low

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 125: Plains Grassy Wetland

Description:

This EVC is usually treeless, but in some instances can include sparse River Red Gum *Eucalyptus camaldulensis* or Swamp Gum *Eucalyptus ovata*. A sparse shrub component may also be present. The characteristic ground cover is dominated by grasses and small sedges and herbs. The vegetation is typically species-rich on the outer verges but is usually species-poor in the wetter central areas.

Life Forms:

Life form	#Spp	%Cover	LF code
Large Herb	5	5%	LH
Medium Herb	6	10%	MH
Small or Prostrate Herb	3	10%	SH
Large Tufted Graminoid	3	15%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	8	30%	MTG
Medium to Tiny Non-tufted Graminoid	2	10%	MNG
Bryophytes/Lichens	na	10%	BL

LF Code

Species typical of at least part of EVC range

Common Name

LH	<i>Epilobium billardierianum</i>	Variable Willow-herb
LH	<i>Villarsia reniformis</i>	Running Marsh-flower
LH	<i>Epilobium billardierianum ssp. cinereum</i>	Grey Willow-herb
MH	<i>Potamogeton tricarlinatus s.l.</i>	Floating Pondweed
MH	<i>Lilaeopsis polyantha</i>	Australian Lilaeopsis
MH	<i>Utricularia dichotoma s.l.</i>	Fairies' Aprons
SH	<i>Eryngium vesiculosum</i>	Prickfoot
SH	<i>Neopaxia australasica</i>	White Purslane
SH	<i>Lobelia pratioides</i>	Poison Lobelia
LTG	<i>Juncus flavidus</i>	Gold Rush
LTG	<i>Deyeuxia quadriseta</i>	Reed Bent-grass
LTG	<i>Amphibromus nervosus</i>	Common Swamp Wallaby-grass
LTG	<i>Poa labillardierei</i>	Common Tussock-grass
MTG	<i>Triglochin procerum s.l.</i>	Water Ribbons
MTG	<i>Glyceria australis</i>	Australian Sweet-grass
MTG	<i>Juncus holoschoenus</i>	Joint-leaf Rush
MTG	<i>Austrodanthonia duttoniana</i>	Brown-back Wallaby-grass
MNG	<i>Eleocharis acuta</i>	Common Spike-sedge
MNG	<i>Eleocharis pusilla</i>	Small Spike-sedge

Recruitment:

Episodic/Flood. Desirable period between disturbances is 5 years.

Organic Litter:

20% cover

Logs:

5 m/0.1 ha.(where trees are overhanging the wetland)

EVC 125: Plains Grassy Wetland - Warrnambool Plain bioregion

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LH	<i>Cirsium vulgare</i>	Spear Thistle	high	high
MH	<i>Leontodon taraxacoides ssp. taraxacoides</i>	Hairy Hawkbit	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
LTG	<i>Phalaris aquatica</i>	Toowoomba Canary-grass	high	high
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MTG	<i>Briza minor</i>	Lesser Quaking-grass	high	low
MTG	<i>Romulea rosea</i>	Onion Grass	high	low
TTG	<i>Cyperus tenellus</i>	Tiny Flat-sedge	high	low

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 155: Bird Colony Succulent Herbland

Description:

A closed, succulent herbland (to open herbland during bird nesting season) occurring on coastal sand. Almost entirely restricted to offshore seabird breeding colonies. The nutrient enriched sandy substrates are dominated by the succulent herb Bower Spinach *Tetragonia implexicoma* and other succulent herbs.

Life Forms:

Life form	#Spp	%Cover	LF code
Medium Shrub	1	30%	MS
Medium Herb	2	5%	MH
Small Herb	2	20%	SH
Large Tufted Graminoid	1	1%	LTG
Scrambler/Climber	2	40%	SC

Total understorey projective foliage cover

80%

LF Code

Species typical of at least part of EVC range

Common Name

MS	<i>Rhagodia candolleana</i> ssp. <i>candolleana</i>	Seaberry Saltbush
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
SH	<i>Carpobrotus rossii</i>	Karkalla
SH	<i>Disphyma crassifolium</i> ssp. <i>clavellatum</i>	Rounded Noon-flower
LTG	<i>Austrostipa flavescent</i>	Coast Spear-grass
SC	<i>Tetragonia implexicoma</i>	Bower Spinach
SC	<i>Clematis microphylla</i>	Small-leaved Clematis

Recruitment:

Continuous

Organic Litter:

10% cover

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
LH	<i>Diplotaxis muralis</i>	Wall Rocket	high	low
MH	<i>Polycarpon tetraphyllum</i>	Four-leaved Allseed	high	low
MH	<i>Arctotheca calendula</i>	Cape Weed	high	low
MTG	<i>Bromus diandrus</i>	Great Brome	high	high
LNG	<i>Ammophila arenaria</i>	Marram Grass	high	low

EVC 155: Bird Colony Succulent Herbland - Warrnambool Plain bioregion

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 160: Coastal Dune Scrub

Description:

Coastal Dune Scrub occupies the secondary dunes along ocean and bay beaches and lake shores. Closed scrub to 3 m tall with occasional emergent trees on siliceous and calcareous sands that are subject to high levels of saltspray and continuous disturbance from onshore winds.

Life forms:

Life form	#Spp	%Cover	LF code
Medium Shrub	7	50%	MS
Small Shrub	1	1%	SS
Large Herb	3	5%	LH
Medium Herb	7	15%	MH
Small or Prostrate Herb	3	10%	SH
Medium to Small Tufted Graminoid	2	15%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Scrambler or Climber	3	5%	SC
Bryophytes/Lichens	na	10%	BL

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Rhagodia candolleana</i> ssp. <i>candolleana</i>	Seaberry Saltbush
MS	<i>Acacia longifolia</i> ssp. <i>sophorae</i>	Coast Wattle
MS	<i>Leucopogon parviflorus</i>	Coast Beard-heath
MS	<i>Olearia axillaris</i>	Coast Daisy-Bush
LH	<i>Senecio pinnatifolius</i>	Variable Groundsel
MH	k <i>Stackhousia spathulata</i>	Coast Stackhousia
SH	<i>Carpobrotus rossii</i>	Karkalla
SH	<i>Apium prostratum</i> ssp. <i>prostratum</i>	Sea Celery
SH	<i>Threlkeldia diffusa</i>	Coast Bonefruit
MTG	<i>Lachnagrostis billardierei</i> ssp. <i>billardierei</i>	Coast Blown-grass
MNG	<i>Ficinia nodosa</i>	Knobby Club-sedge
MNG	<i>Schoenus nitens</i>	Shiny Bog-sedge
SC	<i>Tetragonia implexicoma</i>	Bower Spinach
SC	<i>Clematis microphylla</i> var. <i>microphylla</i>	Small-leaved Clematis

Recruitment:

Episodic/Fire. Desirable period between disturbances is 30 years.

Organic Litter:

40 % cover

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MS	<i>Lycium ferocissimum</i>	African Box-thorn	high	high
MS	<i>Rhamnus alaternus</i>	Italian Buckthorn	high	high
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
LH	<i>Sonchus asper</i> s.l.	Rough Sow-thistle	high	low
LH	<i>Senecio elegans</i>	Purple Groundsel	high	high
LH	<i>Melilotus indicus</i>	Sweet Melilot	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Cerastium glomeratum</i> s.l.	Common Mouse-ear Chickweed	high	low
MH	<i>Galium murale</i>	Small Goosegrass	high	low
LNG	<i>Ammophila arenaria</i>	Marram Grass	high	high
MTG	<i>Catapodium rigidum</i>	Fern Grass	high	low
MNG	<i>Lagurus ovatus</i>	Hare's-tail Grass	high	low
SC	<i>Asparagus asparagoides</i>	Bridal Creeper	high	high

EVC 160: Coastal Dune Scrub - Warrnambool Plain bioregion

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 161: Coastal Headland Scrub

Description:

Scrub or shrubland to 0.5 m tall on steep, rocky coastal headlands often associated with cliffs exposed to the stresses of extreme salt-laden winds and salt spray from the south west. Occurs on shallow sands in association with rocky sections of the coast.

Life forms:

Life form	#Spp	%Cover	LF code
Medium Shrub	5	50%	MS
Small Shrub	2	10%	SS
Prostrate Shrub	1	1%	PS
Large Herb	2	1%	LH
Medium Herb	4	10%	MH
Small or Prostrate Herb	2	5%	SH
Large Tufted Graminoid	1	5%	LTG
Large Non-tufted Graminoid	1	1%	LNG
Medium to Small Tufted Graminoid	5	15%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Leucopogon parviflorus</i>	Coast Beard-heath
MS	<i>Leptospermum scoparium</i>	Manuka
MS	<i>Banksia marginata</i>	Silver Banksia
MS	<i>Acacia verticillata</i>	Prickly Moses
SS	<i>Leucophyta brownii</i>	Cushion Bush
SS	<i>Acrotriche affinis</i>	Ridged Ground-berry
SS	<i>Pultenaea stricta</i>	Rigid Bush-pea
PS	<i>Acrotriche serrulata</i>	Honey-pots
PS	<i>Bossiaea prostrata</i>	Creeping Bossiaea
MH	<i>Viola hederacea</i> sensu Willis (1972)	Ivy-leaf Violet
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
SH	<i>Selliera radicans</i>	Shiny Swamp-mat
SH	<i>Oxalis corniculata</i> s.l.	Yellow Wood-sorrel
LTG	<i>Gahnia trifida</i>	Coast Saw-sedge
MTG	<i>Poa poiformis</i> var. <i>poiformis</i>	Coast Tussock-grass
MTG	<i>Schoenus apogon</i>	Common Bog-sedge
MTG	<i>Dianella revoluta</i> s.l.	Black-anther Flax-lily
MTG	<i>Carex breviculmis</i>	Common Grass-sedge
MNG	<i>Ficinia nodosa</i>	Knobby Club-sedge
MNG	<i>Distichlis distichophylla</i>	Australian Salt-grass

Recruitment:

Continuous

Organic Litter:

40 % cover

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Centaurea erythraea</i>	Common Centaury	high	low
MH	<i>Anagallis arvensis</i>	Pimpernel	high	low
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high

EVC 161: Coastal Headland Scrub - Warrnambool Plain bioregion

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 163: Coastal Tussock Grassland

Description:

A tussock grassland that may contain emergent shrubs. Occurs on exposed coastal cliffs and bluffs. Soils are saline and the strong salt-laden winds preclude tree growth.

Life Forms:

Life form	#Spp	%Cover	LF code
Medium Shrub	5	20%	MS
Small Shrub	2	15%	SS
Prostrate Shrub	1	1%	PS
Large Herb	2	1%	LH
Medium Herb	6	10%	MH
Small or Prostrate Herb	2	5%	SH
Large Tufted Graminoid	1	10%	LTG
Medium to Small Tufted Graminoid	5	25%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Leucopogon parviflorus</i>	Coast Beard-heath
MS	<i>Leptospermum scoparium</i>	Manuka
MS	<i>Banksia marginata</i>	Silver Banksia
MS	<i>Olearia axillaris</i>	Coast Daisy-Bush
SS	<i>Acrotriche affinis</i>	Ridged Ground-berry
SS	<i>Hibbertia aspera s.l.</i>	Rough Guinea-flower
SS	<i>Pultenaea stricta</i>	Rigid Bush-pea
PS	<i>Astroloma humifusum</i>	Cranberry Heath
MH	<i>Viola hederacea sensu Willis (1972)</i>	Ivy-leaf Violet
MH	<i>Senecio spathulatus s.l.</i>	Dune Groundsel
MH	<i>Brachyscome parvula</i>	Coast Daisy
SH	<i>Selliera radicans</i>	Shiny Swamp-mat
SH	<i>Oxalis corniculata s.l.</i>	Yellow Wood-sorrel
SH	<i>Dichondra repens</i>	Kidney-weed
LTG	<i>Gahnia trifida</i>	Coast Saw-sedge
MTG	<i>Poa poiformis</i>	Coast Tussock-grass
MTG	<i>Schoenus apogon</i>	Common Bog-sedge
MTG	<i>Dianella revoluta s.l.</i>	Black-anther Flax-lily
MTG	<i>Lepidosperma gladiatum</i>	Coast Sword-sedge
MNG	<i>Baumea juncea</i>	Bare Twig-sedge
MNG	<i>Distichlis distichophylla</i>	Australian Salt-grass

Recruitment:

Continuous

Organic Litter:

20% cover

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
LH	<i>Cirsium vulgare</i>	Spear Thistle	high	high
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Anagallis arvensis</i>	Pimpernel	high	low
MH	<i>Centaurium erythraea</i>	Common Centaury	high	low
MH	<i>Leontodon taraxacoides ssp. taraxacoides</i>	Hairy Hawkbit	high	low
MH	<i>Plantago coronopus</i>	Buck's-horn Plantain	high	high

EVC 163: Coastal Tussock Grassland - Warrnambool Plain bioregion

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 165: Damp Heath Scrub

Description:

Shrubland to 3 m tall with occasional emergent eucalypts. Occurs on flat to gently sloping terrain, on or near coastal sites. Generally high rainfall and lack of drainage combine to retain high levels of moisture throughout the year.

Life forms:

Life form	#Spp	%Cover	LF code
Medium Shrub	6	50%	MS
Small Shrub	3	5%	SS
Prostrate Shrub	2	5%	PS
Medium Herb	4	5%	MH
Small or Prostrate Herb	2	1%	SH
Large Tufted Graminoid	2	10%	LTG
Medium to Small Tufted Graminoid	4	15%	MTG
Medium to Tiny Non-tufted Graminoid	2	10%	MNG
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C

LF Code

Species typical of at least part of EVC range

Common Name

MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Banksia marginata</i>	Silver Banksia
MS	<i>Allocasuarina paludosa</i>	Scrub Sheoak
MS	<i>Acacia verticillata</i>	Prickly Moses
SS	<i>Isopogon ceratophyllus</i>	Horny Cone-bush
SS	<i>Pultenaea stricta</i>	Rigid Bush-pea
SS	<i>Hibbertia stricta s.l.</i>	Upright Guinea-flower
SS	<i>Tetralochea ciliata</i>	Pink-bells
PS	<i>Bossiaea prostrata</i>	Creeping Bossiaea
PS	<i>Acrotriche serrulata</i>	Honey-pots
PS	<i>Xanthosia dissecta s.l.</i>	Cut-leaf Xanthosia
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Viola hederacea sensu Willis (1972)</i>	Ivy-leaf Violet
MH	<i>Drosera peltata ssp. auriculata</i>	Tall Sundew
MH	<i>Selaginella uliginosa</i>	Swamp Selaginella
LTG	<i>Xanthorrhoea australis</i>	Austral Grass-tree
LTG	<i>Gahnia trifida</i>	Coast Saw-sedge
MTG	<i>Lepidosperma laterale</i>	Variable Sword-sedge
MTG	<i>Patersonia fragilis</i>	Short Purple-flag
MTG	<i>Lepidosperma filiforme</i>	Common Rapier-sedge
MTG	<i>Schoenus apogon</i>	Common Bog-sedge
MNG	<i>Schoenus lepidosperma</i>	Slender Bog-sedge
MNG	<i>Empodisma minus</i>	Spreading Rope-rush
GF	<i>Lindsaea linearis</i>	Screw Fern

Recruitment:

Episodic/Fire. Desirable period between disturbances is 30 years.

Organic Litter:

40% cover

Weediness:

There are no consistent weeds in this EVC.

EVC 165: Damp Heath Scrub - Warrnambool Plain bioregion

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 175: Grassy Woodland

Description:

A variable open eucalypt woodland to 15 m tall over a diverse ground layer of grasses and herbs. The shrub component is usually sparse. It occurs on sites with moderate fertility on gentle slopes or undulating hills on a range of geologies.

Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	70 cm	15 / ha

Tree Canopy Cover:

%cover	Character Species	Common Name
15%	<i>Eucalyptus ovata</i>	Swamp Gum
	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
	<i>Eucalyptus viminalis</i>	Manna Gum

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	2	10%	T
Medium Shrub	2	10%	MS
Small Shrub	2	1%	SS
Prostrate Shrub	2	5%	PS
Large Herb	2	5%	LH
Medium Herb	8	20%	MH
Small or Prostrate Herb	3	5%	SH
Large Tufted Graminoid	1	1%	LTG
Medium to Small Tufted Graminoid	8	45%	MTG
Medium to Tiny Non-tufted Graminoid	1	5%	MNG
Scrambler or Climber	1	1%	SC
Bryophytes/Lichens	na	10%	BL

LF Code

Species typical of at least part of EVC range

Common Name

T	<i>Allocasuarina verticillata</i>	Drooping Sheoak
T	<i>Acacia mearnsii</i>	Black Wattle
MS	<i>Bursaria spinosa</i>	Sweet Bursaria
MS	<i>Cassinia arcuata</i>	Drooping Cassinia
MS	<i>Acacia pycnantha</i>	Golden Wattle
SS	<i>Pimelea humilis</i>	Common Rice-flower
PS	<i>Atriplex semibaccata</i>	Berry Saltbush
MH	<i>Acaena echinata</i>	Sheep's Burr
MH	<i>Einadia nutans</i> ssp. <i>nutans</i>	Nodding Saltbush
SH	<i>Crassula sieberiana</i>	Sieber Crassula
SH	<i>Dichondra repens</i>	Kidney-weed
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MTG	<i>Austrostipa scabra</i>	Rough Spear-grass
MTG	<i>Austrodanthonia caespitosa</i>	Common Wallaby-grass
MTG	<i>Dianella revoluta</i> s.l.	Black-anther Flax-lily
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
SC	<i>Clematis microphylla</i>	Small-leaved Clematis

EVC 175: Grassy Woodland - Warrnambool Plain bioregion

Recruitment:

Continuous

Organic Litter:

20 % cover

Logs:

15 m/0.1 ha.

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MS	<i>Lycium ferocissimum</i>	African Box-thorn	high	high
MH	<i>Leontodon taraxacoides</i> ssp. <i>taraxacoides</i>	Hairy Hawkbit	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Arctotheca calendula</i>	Cape Weed	high	low
MTG	<i>Briza maxima</i>	Large Quaking-grass	high	low
MTG	<i>Romulea rosea</i>	Onion Grass	high	low
MTG	<i>Ehrharta erecta</i> var. <i>erecta</i>	Panic Veldt-grass	high	high
MTG	<i>Ehrharta longiflora</i>	Annual Veldt-grass	high	low
MTG	<i>Nassella neesiana</i>	Chilean Needle-grass	high	high
MTG	<i>Nassella trichotoma</i>	Serrated Tussock	high	high

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 181: Coast Gully Thicket

Description:

Occurs along drainage lines and small creeks close to the coast. The soils are shallow sands grading to clay over limestone. Shrubland/thicket with occasional eucalypts wind pruned to 3 m tall. This EVC is subject to prevailing south-west winds that restrict its height.

Life forms:

Life form	#Spp	%Cover	LF code
Medium Shrub	5	50%	MS
Small Shrub	1	5%	SS
Medium Herb	2	1%	MH
Large Tufted Graminoid	2	5%	LTG
Medium to Small Tufted Graminoid	3	5%	MTG
Ground Fern	2	5%	GF
Scrambler or Climber	2	5%	SC
Bryophytes/Lichens	na	10 %	BL
Total understorey projective foliage cover		60%	

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Leptospermum scoparium</i>	Manuka
MS	<i>Leucopogon parviflorus</i>	Coast Beard-heath
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
SS	<i>Hibbertia aspera</i> s.l.	Rough Guinea-flower
MH	<i>Viola hederacea</i> sensu Willis (1972)	Ivy-leaf Violet
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
LTG	<i>Gahnia trifida</i>	Coast Saw-sedge
MTG	<i>Poa labillardierei</i>	Common Tussock-grass
MTG	<i>Lepidosperma laterale</i>	Variable Sword-sedge
MTG	<i>Dianella revoluta</i> s.l.	Black-anther Flax-lily
GF	<i>Pteridium esculentum</i>	Austral Bracken
SC	<i>Cassytha pubescens</i> s.s.	Downy Dodder-laurel
SC	<i>Muehlenbeckia adpressa</i>	Climbing Lignum
SC	<i>Clematis aristata</i>	Mountain Clematis

Recruitment:

Continuous

Organic Litter:

40 % cover

Logs:

5 m/0.1 ha. (note: large log class does not apply)

Weediness:

There are no consistent weeds in this EVC.

EVC 181: Coast Gully Thicket - Warrnambool Plain bioregion

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 198: Sedgy Riparian Woodland

Description:

Eucalypt forest or woodland to 15 m tall with sedge-dominated understorey. Occurs on flats along low gradient creeks and drainage lines subject to seasonal inundation and waterlogging in moderately fertile habitats.

Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	70 cm	15 / ha

Tree Canopy Cover:

%cover	Character Species	Common Name
20%	<i>Eucalyptus ovata</i>	Swamp Gum
	<i>Eucalyptus obliqua</i>	Messmate Stringybark

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Medium Shrub	5	30%	MS
Large Herb	1	1%	LH
Medium Herb	7	10%	MH
Small or Prostrate Herb	2	5%	SH
Large Tufted Graminoid	3	30%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	1	1%	MTG
Medium to Tiny Non-tufted Graminoid	3	10%	MNG
Ground Fern	2	10%	GF
Scrambler or Climber	1	1%	SC
Bryophytes/Lichens	na	20%	BL

LF Code

Species typical of at least part of EVC range

Common Name

MS	<i>Melaleuca squarrosa</i>	Scented Paperbark
MS	<i>Bursaria spinosa</i> ssp. <i>spinosa</i>	Sweet Bursaria
MS	<i>Coprosma quadrifida</i>	Prickly Currant-bush
MS	<i>Ozothamnus ferrugineus</i>	Tree Everlasting
SS	<i>Pultenaea stricta</i>	Rigid Bush-pea
LH	<i>Villarsia reniformis</i>	Running Marsh-flower
LH	<i>Senecio minimus</i>	Shrubby Fireweed
MH	<i>Hypericum gramineum</i>	Small St John's Wort
MH	<i>Hydrocotyle hirta</i>	Hairy Pennywort
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Lagenophora stipitata</i>	Common Bottle-daisy
SH	<i>Leptostigma reptans</i>	Dwarf Nertera
SH	<i>Lobelia pedunculata</i> s.l.	Matted Pratia
SH	<i>Oxalis exilis</i>	Shady Wood-sorrel
SH	<i>Dichondra repens</i>	Kidney-weed
LTG	<i>Lepidosperma laterale</i> var. <i>majus</i>	Variable Sword-sedge
LTG	<i>Gahnia sieberiana</i>	Red-fruit Saw-sedge
LTG	<i>Lomandra longifolia</i> ssp. <i>longifolia</i>	Spiny-headed Mat-rush
LNG	<i>Tetrarrhena juncea</i>	Forest Wire-grass
MTG	<i>Tetraria capillaris</i>	Hair Sedge
MTG	<i>Poa clelandii</i>	Noah's Ark
MNG	<i>Tetrarrhena distichophylla</i>	Hairy Rice-grass
MNG	<i>Poa tenera</i>	Slender Tussock-grass
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
MNG	<i>Empodisma minus</i>	Spreading Rope-rush
GF	<i>Lindsaea linearis</i>	Screw Fern
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Adiantum aethiopicum</i>	Common Maidenhair
SC	<i>Clematis aristata</i>	Mountain Clematis

EVC 198: Sedgy Riparian Woodland - Warrnambool Plain bioregion

Recruitment:

Continuous

Organic Litter:

30 % cover

Logs:

20 m/0.1 ha.

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MS	<i>Rubus fruticosus</i> spp. agg.	Blackberry	high	high
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 201: Shrubby Wet Forest

Description:

Tall eucalypt forest to 30 m tall with scattered understorey trees over a tall broad-leaved shrubby understorey and a moist, shaded, fern-rich ground layer that is usually dominated by tree-ferns. Herbs may also be abundant where light penetrates the ground layer.

Large trees:

Species

Eucalyptus spp.

DBH(cm)

90 cm

#/ha

20 / ha

Tree Canopy Cover:

%cover

40%

Character Species

Eucalyptus obliqua

Eucalyptus viminalis

Common Name

Messmate Stringybark

Manna Gum

Understorey:

Life form

Immature Canopy Tree
Understorey Tree or Large Shrub
Medium Shrub
Prostrate Shrub
Large Herb
Medium Herb
Small or Prostrate Herb
Large Tufted Graminoid
Large Non-tufted Graminoid
Medium to Small Tufted Graminoid
Medium to Tiny Non-tufted Graminoid
Ground Fern
Tree Fern
Scrambler or Climber
Bryophytes/Lichens

#Spp

2
9
1
2
5
2
1
2
1
1
3
1
1
na

%Cover

5%
10%
20%
1%
1%
10%
5%
10%
10%
5%
1%
20%
15%
1%
20%

LF code

IT
T
MS
PS
LH
MH
SH
LTG
LNG
MTG
MNG
GF
TRF
SC
BL

EVC 201: Shrubby Wet Forest - Warrnambool Plain bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Olearia argophylla</i>	Musk Daisy-bush
T	<i>Notelaea ligustrina</i>	Privet Mock-olive
MS	<i>Ozothamnus ferrugineus</i>	Tree Everlasting
MS	<i>Acacia verticillata</i>	Prickly Moses
MS	<i>Olearia lirata</i>	Snowy Daisy-bush
MS	<i>Goodenia ovata</i>	Hop Goodenia
SS	<i>Tetratheca ciliata</i>	Pink-bells
SS	<i>Pultenaea stricta</i>	Rigid Bush-pea
PS	<i>Acrotriche serrulata</i>	Honey-pots
LH	<i>Mentha laxiflora</i>	Forest Mint
LH	<i>Senecio glomeratus</i>	Annual Fireweed
LH	<i>Pterostylis longifolia</i> s.l.	Tall Greenhood
LH	<i>Wahlenbergia gracilis</i> s.l.	Sprawling Bluebell
MH	<i>Gonocarpus humilis</i>	Shade Raspwort
MH	<i>Viola hederacea</i> sensu Willis (1972)	Ivy-leaf Violet
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
MH	<i>Daucus glochidiatus</i>	Australian Carrot
SH	<i>Oxalis corniculata</i> s.l.	Yellow Wood-sorrel
SH	<i>Leptostigma reptans</i>	Dwarf Nertera
SH	<i>Goodenia lanata</i>	Trailing Goodenia
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
LTG	<i>Lepidosperma elatius</i>	Tall Sword-sedge
LTG	<i>Carex appressa</i>	Tall Sedge
LNG	<i>Tetrarrhena juncea</i>	Forest Wire-grass
MTG	<i>Stylidium graminifolium</i> s.l.	Grass Trigger-plant
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
MTG	<i>Dianella tasmanica</i>	Tasman Flax-lily
MTG	<i>Dianella revoluta</i> s.l.	Black-anther Flax-lily
MNG	<i>Poa tenera</i>	Slender Tussock-grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Calochlaena dubia</i>	Common Ground-fern
GF	<i>Blechnum nudum</i>	Fishbone Water-fern
GF	<i>Adiantum aethiopicum</i>	Common Maidenhair
TRF	<i>Cyathea australis</i>	Rough Tree-fern
SC	<i>Clematis aristata</i>	Mountain Clematis
SC	<i>Billardiera scandens</i>	Common Apple-berry
SC	<i>Billardiera longiflora</i> var. <i>longiflora</i>	Purple Apple-berry

Recruitment:

Continuous

Organic Litter:

50 % cover

Logs:

30 m/0.1 ha.

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 203: Stony Rises Woodland

Description:

Eucalypt woodland to 15 m tall on stony rises (highly irregular terrain on recent basalt flows). Soils are fertile and well-drained but shallow or skeletal. Limited soil development outside of rock-cracks and dry summers promote annuals and deep-rooted perennials.

Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	70 cm	15 / ha

Tree Canopy Cover:

%cover	Character Species	Common Name
15%	<i>Eucalyptus viminalis</i> ssp. <i>viminalis</i>	Manna Gum

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	1	10%	T
Medium Shrub	1	5%	MS
Small Shrub	1	5%	SS
Large Herb	3	5%	LH
Medium Herb	9	20%	MH
Small or Prostrate Herb	3	10%	SH
Large Tufted Graminoid	1	5%	LTG
Medium to Small Tufted Graminoid	4	20%	MTG
Medium to Tiny Non-tufted Graminoid	1	5%	MNG
Ground Fern	2	20%	GF
Scrambler or Climber	1	1%	SC
Bryophytes/Lichens	na	10%	BL

LF Code

Species typical of at least part of EVC range

Common Name

T	<i>Acacia melanoxylon</i>	Blackwood
MS	<i>Cassinia longifolia</i>	Shiny Cassinia
SS	<i>Rubus parvifolius</i>	Small-leaf Bramble
LH	<i>Epilobium billardierianum</i> ssp. <i>cinereum</i>	Grey Willow-herb
LH	<i>Senecio pinnatifolius</i>	Variable Groundsel
LH	<i>Rumex brownii</i>	Slender Dock
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
MH	<i>Geranium solanderi</i> s.l.	Austral Cranesbill
MH	<i>Oxalis exilis</i>	Shady Wood-sorrel
MH	<i>Parietaria debilis</i> s.l.	Shade Pellitory
SH	<i>Crassula sieberiana</i>	Sieber Crassula
SH	<i>Dichondra repens</i>	Kidney-weed
MTG	<i>Austrodanthonia racemosa</i> var. <i>racemosa</i>	Stiped Wallaby-grass
MTG	<i>Dichelachne rara</i>	Common Plume-grass
MTG	<i>Poa ensiformis</i>	Sword Tussock-grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Asplenium flabellifolium</i>	Necklace Fern
GF	<i>Cheilanthes austrotenuifolia</i>	Green Rock Fern
SC	<i>Clematis microphylla</i>	Small-leaved Clematis

EVC 203: Stony Rises Woodland - Warrnambool Plain bioregion

Recruitment:

Continuous

Organic Litter:

20 % cover

Logs:

15 m/0.1 ha.

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
LH	<i>Carduus pycnocephalus</i>	Slender Thistle	high	high
LH	<i>Sonchus asper</i> s.l.	Rough Sow-thistle	high	low
LH	<i>Cirsium vulgare</i>	Spear Thistle	high	high
LH	<i>Solanum nigrum</i> sensu Willis (1972)	Black Nightshade	high	low
MH	<i>Cerastium glomeratum</i> s.l.	Common Mouse-ear Chickweed	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Veronica persica</i>	Persian Speedwell	high	low
MH	<i>Trifolium subterraneum</i>	Subterranean Clover	high	low
MH	<i>Trifolium dubium</i>	Suckling Clover	high	low
MH	<i>Acetosella vulgaris</i>	Sheep Sorrel	high	low
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MTG	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	high	high
MTG	<i>Bromus diandrus</i>	Great Brome	high	low

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 642: Basalt Shrubby Woodland

Description:

Eucalypt-dominated woodland to 15 m tall with an understorey of shrubs and grasses, presumed originally quite species-rich. Occurs on well-drained to seasonally damp fertile soils in higher rainfall areas of volcanic plain.

Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	70 cm	15 / ha

Tree Canopy Cover:

%cover	Character Species	Common Name
15%	<i>Eucalyptus ovata</i>	Swamp Gum
	<i>Eucalyptus viminalis</i>	Manna Gum

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	2	10%	T
Medium Shrub	2	5%	MS
Prostrate Shrub	2	1%	PS
Large Herb	2	1%	LH
Medium Herb	10	15%	MH
Small or Prostrate Herb	5	10%	SH
Large Tufted Graminoid	3	5%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	10	25%	MTG
Medium to Tiny Non-tufted Graminoid	3	10%	MNG
Ground Fern	1	15%	GF
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C

LF Code

Species typical of at least part of EVC range

Common Name

T	<i>Acacia melanoxylon</i>	Blackwood
T	<i>Acacia mearnsii</i>	Black Wattle
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Acacia verticillata</i>	Prickly Moses
PS	<i>Bossiaea prostrata</i>	Creeping Bossiaea
PS	<i>Astroloma humifusum</i>	Cranberry Heath
LH	<i>Senecio glomeratus</i>	Annual Fireweed
MH	<i>Drosera peltata</i> ssp. <i>auriculata</i>	Tall Sundew
MH	<i>Lagenophora stipitata</i>	Common Bottle-daisy
SH	<i>Oxalis exilis</i>	Shady Wood-sorrel
SH	<i>Kennedia prostrata</i>	Running Postman
SH	<i>Lobelia pedunculata</i> s.l.	Matted Pratia
SH	<i>Leptostigma reptans</i>	Dwarf Nertera
LTG	<i>Austrostipa pubinodis</i>	Tall Spear-grass
LTG	<i>Lepidosperma elatius</i>	Tall Sword-sedge
LTG	<i>Deyeuxia quadriseta</i>	Reed Bent-grass
MTG	<i>Dichelachne rara</i>	Common Plume-grass
MTG	<i>Lomandra filiformis</i> ssp. <i>filiformis</i>	Wattle Mat-rush
MTG	<i>Dichelachne crinita</i>	Long-hair Plume-grass
MTG	<i>Austrodanthonia pilosa</i>	Velvet Wallaby-grass
MNG	<i>Poa tenera</i>	Slender Tussock-grass
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
GF	<i>Pteridium esculentum</i>	Austral Bracken

EVC 642: Basalt Shrubby Woodland - Warrnambool Plain bioregion

Recruitment:

Continuous

Organic Litter:

20 % cover

Logs:

15 m/0.1 ha.

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
T	<i>Pinus radiata</i>	Radiata Pine	high	high
LH	<i>Centaurium tenuiflorum</i>	Slender Centaury	high	low
LH	<i>Plantago lanceolata</i>	Ribwort	high	low
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
LH	<i>Cirsium vulgare</i>	Spear Thistle	high	high
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Centaurium erythraea</i>	Common Centaury	high	low
MH	<i>Gamochaeta purpurea</i> s.s.	Spiked Cudweed	high	low
MH	<i>Leontodon taraxacoides</i> ssp. <i>taraxacoides</i>	Hairy Hawkbit	high	low
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MTG	<i>Briza minor</i>	Lesser Quaking-grass	high	low
MTG	<i>Briza maxima</i>	Large Quaking-grass	high	low
MTG	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	high	high
MNG	<i>Aira elegantissima</i>	Delicate Hair-grass	high	low
MNG	<i>Cynosurus echinatus</i>	Rough Dog's-tail	high	low
SNG	<i>Sisyrinchium iridifolium</i>	Blue Pigroot	high	low

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 647: Plains Sedgy Wetland

Description:

Occurs in seasonally wet depressions on volcanic and sedimentary plains, typically associated with fertile, silty, peaty or heavy clay paludal soils. Primarily sedgy-herbaceous vegetation, sometimes with scattered or fringing eucalypts or tea-tree/paperbark shrubs in higher rainfall areas. A range of aquatic herbs can be present, and species-richness is mostly relatively low to moderate, but higher towards drier margins.

Life Forms:

Life form	#Spp	%Cover	LF code
Large Herb	2	5%	LH
Medium Herb	5	40%	MH
Small or Prostrate Herb	5	10%	SH
Large Tufted Graminoid	2	5%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	4	25%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG

LF Code	Species typical of at least part of EVC range	Common Name
LH	<i>Epilobium billardierianum</i>	Variable Willow-herb
MH	<i>Potamogeton tricarlinatus</i> s.l.	Floating Pondweed
MH	<i>Myriophyllum simulans</i>	Amphibious Water-milfoil
MH	<i>Stellaria angustifolia</i>	Swamp Starwort
MH	<i>Lilaeopsis polyantha</i>	Australian Lilaeopsis
SH	<i>Neopaxia australasica</i>	White Purslane
SH	<i>Lobelia pratioides</i>	Poison Lobelia
SH	v <i>Helichrysum</i> aff. <i>rutidolepis</i> (Lowland Swamps)	Pale Swamp Everlasting
SH	<i>Eryngium vesiculosum</i>	Prickfoot
LTG	<i>Carex tereticaulis</i>	Hollow Sedge
MTG	k <i>Lachnagrostis filiformis</i> (perennial variety)	Wetland Blown-grass
MTG	<i>Lachnagrostis filiformis</i>	Common Blown-grass
MTG	<i>Glyceria australis</i>	Australian Sweet-grass
MNG	<i>Eleocharis acuta</i>	Common Spike-sedge
MNG	v <i>Amphibromus sinuatus</i>	Wavy Swamp Wallaby-grass

Recruitment:

Episodic/Flood. Desirable period between disturbances is 5 years.

Organic Litter:

10% cover

Logs:

5 m/0.1 ha.(where trees are overhanging the wetland)

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MTG	<i>Juncus bulbosus</i>	Bulbous Rush	high	high

EVC 647: Plains Sedgy Wetland - Warrnambool Plain bioregion

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 651: Plains Swampy Woodland

Description:

Eucalypt woodland to 15 m tall with ground layer dominated by tussock grasses, sedges and herbs. Shrubs are often scattered throughout. Occurs on poorly drained, seasonally waterlogged heavy soils.

Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	80 cm	10 / ha

Tree Canopy Cover:

%cover	Character Species	Common Name
10%	<i>Eucalyptus ovata</i>	Swamp Gum

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	1	5%	T
Medium Shrub	3	15%	MS
Large Herb	3	5%	LH
Medium Herb	8	20%	MH
Small or Prostrate Herb	5	5%	SH
Large Tufted Graminoid	3	30%	LTG
Large Non-tufted Graminoid	1	1%	LNG
Medium to Small Tufted Graminoid	7	10%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Bryophytes/Lichens	na	20%	BL

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia melanoxylon</i>	Blackwood
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Ozothamnus ferrugineus</i>	Tree Everlasting
MS	<i>Allocasuarina paludosa</i>	Scrub Sheoak
LH	<i>Senecio tenuiflorus</i>	Slender Fireweed
LH	<i>Villarsia reniformis</i>	Running Marsh-flower
MH	<i>Asperula conferta</i>	Common Woodruff
MH	<i>Centella cordifolia</i>	Centella
MH	<i>Lobelia anceps</i>	Angled Lobelia
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
SH	<i>Eryngium vesiculosum</i>	Prickfoot
SH	<i>Oxalis exilis</i>	Shady Wood-sorrel
SH	R r <i>Lobelia beaugleholei</i>	Showy Lobelia
SH	<i>Hypericum japonicum</i>	Matted St John's Wort
LTG	<i>Gahnia trifida</i>	Coast Saw-sedge
LTG	<i>Carex appressa</i>	Tall Sedge
LTG	<i>Poa labillardierei</i> var. <i>labillardierei</i>	Common Tussock-grass
MTG	<i>Poa clelandii</i>	Noah's Ark
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MTG	<i>Themeda triandra</i>	Kangaroo Grass
MNG	<i>Poa tenera</i>	Slender Tussock-grass
MNG	<i>Hemarthria uncinata</i> var. <i>uncinata</i>	Mat Grass

EVC 651: Plains Swampy Woodland - Warrnambool Plain bioregion

Recruitment:

Continuous

Organic Litter:

10 % cover

Logs:

10 m/0.1 ha.

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LH	<i>Plantago lanceolata</i>	Ribwort	high	low
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
LH	<i>Sonchus asper</i> s.l.	Rough Sow-thistle	high	low
LH	<i>Cirsium vulgare</i>	Spear Thistle	high	high
MH	<i>Trifolium dubium</i>	Suckling Clover	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Prunella vulgaris</i>	Self-heal	high	low
MH	<i>Leontodon taraxacoides</i> ssp. <i>taraxacoides</i>	Hairy Hawkbit	high	low
LTG	<i>Festuca arundinacea</i>	Tall Fescue	high	high
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MTG	<i>Briza minor</i>	Lesser Quaking-grass	high	low
MTG	<i>Romulea rosea</i>	Onion Grass	high	low
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MTG	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	high	high
MNG	<i>Holcus setosus</i>	Annual Fog	high	low
MNG	<i>Juncus capitatus</i>	Capitate Rush	high	low
TTG	<i>Cyperus tenellus</i>	Tiny Flat-sedge	high	low

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 653: Aquatic Herbland

Description:

Herbland of permanent to semi-permanent wetlands, dominated by sedges (especially on shallower verges) and/or aquatic herbs. Occurs on fertile paludal soils, typically heavy clays beneath organic accumulations.

Life Forms:

Life form	#Spp	%Cover	LF code
Medium Herb	3	20%	MH
Large Tufted Graminoid	1	25%	LTG
Medium to Small Tufted Graminoid	4	25%	MTG
Medium to Tiny Non-tufted Graminoid	1	1%	MNG
Total understorey projective foliage cover		70%	

LF Code	Species typical of at least part of EVC range	Common Name
MH	<i>Utricularia australis</i>	Yellow Bladderwort
MH	<i>Myriophyllum simulans</i>	Amphibious Water-milfoil
MH	<i>Potamogeton tricarlinatus</i> s.l.	Floating Pondweed
LTG	<i>Baumea articulata</i>	Jointed Twig-sedge
MTG	<i>Triglochin procerum</i> s.l.	Water Ribbons
MTG	<i>Isolepis fluitans</i>	Floating Club-sedge
MTG	k <i>Lachnagrostis filiformis</i> (perennial variety)	Wetland Blown-grass
MTG	<i>Lachnagrostis filiformis</i>	Common Blown-grass
MNG	v <i>Amphibromus sinuatus</i>	Wavy Swamp Wallaby-grass

Recruitment:

Episodic/Flood. Desirable period between disturbances is 5 years.

Organic Litter:

10% cover

Weediness:

There are no consistent weeds in this EVC.

EVC 653: Aquatic Herbland - Warrnambool Plain bioregion

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain Bioregion

EVC 705: Basalt Creekline Shrubby Woodland

Description:

Shrub-dominated low eucalypt woodland to 10 m tall, with a range of grasses, sedges and herbs in the understorey. Occurs on heavy soils along low-gradient boggy drainage lines on relatively high rainfall volcanic plains.

Large Trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus spp.</i>	70 cm	10 / ha

Tree Canopy Cover:

%cover	Character Species	Common Name
10%	<i>Eucalyptus ovata</i>	Swamp Gum

Understorey:

Lifeform	#Spp	%Cover	LF Code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	1	10%	T
Medium Shrub	4	15%	MS
Large Herb	2	5%	LH
Medium Herb	8	15%	MH
Small or Prostrate Herb	5	10%	SH
Large Tufted Graminoid	2	15%	LTG
Medium to Small Tufted Graminoid	7	20%	MTG
Medium to Tiny Non-Tufted Graminoid	2	10%	MNG
Bryophytes/Lichens		10%	BL

LF Code

Species typical of at least part of EVC range

Common Name

T	<i>Acacia melanoxylon</i>	Blackwood
MS	<i>Acacia verticillata</i>	Prickly Moses
MS	<i>Coprosma quadrifida</i>	Prickly Currant-bush
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Ozothamnus ferrugineus</i>	Tree Everlasting
LH	<i>Epilobium billardierianum</i>	Variable Willow-herb
LH	<i>Villarsia reniformis</i>	Running Marsh-flower
MH	<i>Centella cordifolia</i>	Centella
MH	<i>Lilaeopsis polyantha</i>	Australian Lilaeopsis
MH	<i>Utricularia dichotoma s.l.</i>	Fairies' Aprons
SH	<i>Eryngium vesiculosum</i>	Prickfoot
SH	<i>Hypericum japonicum</i>	Matted St John's Wort
SH	<i>Lobelia pratioides</i>	Poison Lobelia
SH	<i>Neopaxia australasica</i>	White Purslane
LTG	<i>Amphibromus nervosus</i>	Common Swamp Wallaby-grass
LTG	<i>Juncus flavidus</i>	Gold Rush
LTG	<i>Poa labillardierei</i>	Common Tussock-grass

EVC 705: Basalt Creekline Shrubby Woodland

LF Code	Species typical of at least part of EVC range	Common Name
MTG	<i>Austrodanthonia duttoniana</i>	Brown-back Wallaby-grass
MTG	<i>Glyceria australis</i>	Australian Sweet-grass
MTG	<i>Juncus holoschoenus</i>	Joint-leaf Rush
MNG	<i>Eleocharis acuta</i>	Common Spike-sedge
MNG	<i>Eleocharis pusilla</i>	Small Spike-sedge

Recruitment:

Continuous.

Organic Litter:

20 % cover

Logs:

20 m/0.1ha.

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LH	<i>Cirsium vulgare</i>	Spear Thistle	high	high
MTG	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	high	high
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
LTG	<i>Festuca arundinacea</i>	Tall Fescue	high	high
MH	<i>Prunella vulgaris</i>	Self-heal	high	high
MNG	<i>Holcus annuus</i>	Annual Fog	high	low
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MTG	<i>Briza minor</i>	Lesser Quaking-grass	high	low
MH	<i>Leontodon taraxacoides</i> subsp. <i>taraxacoides</i>	Hairy Hawkbit	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Trifolium dubium</i>	Suckling Clover	high	low
TTG	<i>Cyperus tenellus</i>	Tiny Flat-sedge	high	low
LH	<i>Sonchus asper</i> s.l.	Rough Sow-thistle	high	low
MTG	<i>Romulea rosea</i>	Onion Grass	high	low
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
LH	<i>Plantago lanceolata</i>	Ribwort	high	low
MNG	<i>Juncus capitatus</i>	Capitate Rush	high	low

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 821: Tall Marsh

Description:

Occurs on Quaternary sedimentary geology of mainly estuarine sands, soils are peaty, silty clays, and average annual rainfall is approximately 600 mm. Requires shallow water (to 1 m deep) and low current-scour, and can only tolerate very low levels of salinity. Closed to open grassland/sedgeland to 3 m tall, dominated by Common Reed and Cumbungi. Small aquatic and semi-aquatic species occur amongst the reeds, however they are generally not visible during inundation.

Life Forms:

Life form	#Spp	%Cover	LF code
Large Herb	3	10%	LH
Medium Herb	3	5%	MH
Small or Prostrate Herb	5	20%	SH
Large Tufted Graminoid	1	5%	LTG
Medium to Small Tufted Graminoid	2	5%	MTG
Large Non-tufted Graminoid	3	40%	LNG
Medium to Tiny Non-tufted Graminoid	2	1%	MNG
Total understorey projective foliage cover		85%	

LF Code	Species typical of at least part of EVC range	Common Name
LH	<i>Myriophyllum verrucosum</i>	Red Water-milfoil
LH	<i>Myriophyllum salsugineum</i>	Lake Water-milfoil
LH	<i>Villarsia reniformis</i>	Running Marsh-flower
MH	<i>Rumex bidens</i>	Mud Dock
MH	<i>Lilaeopsis polyantha</i>	Australian Lilaeopsis
MH	<i>Lepilaena bilocularis</i>	Small-fruit Water-mat
SH	<i>Crassula helmsii</i>	Swamp Crassula
SH	<i>Wolffia australiana</i>	Tiny Duckweed
SH	<i>Mimulus repens</i>	Creeping Monkey-flower
SH	<i>Lemna disperma</i>	Common Duckweed
LNG	<i>Typha orientalis</i>	Broad-leaf Cumbungi
LNG	<i>Schoenoplectus tabernaemontani</i>	River Club-sedge
LNG	<i>Phragmites australis</i>	Common Reed
MTG	<i>Triglochin procerum s.l.</i>	Water Ribbons
MNG	<i>Lepilaena cylindrocarpa</i>	Long-fruit Water-mat
MNG	<i>Eleocharis acuta</i>	Common Spike-sedge

Recruitment:

Episodic/Flood. Desirable period between disturbances is 5 years.

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MH	<i>Cotula coronopifolia</i>	Water Buttons	high	high
MNG	<i>Paspalum distichum</i>	Water Couch	high	high

EVC 821: Tall Marsh - Warrnambool Plain bioregion

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Warrnambool Plain bioregion

EVC 894: Scoria Cone Woodland

Description:

Eucalypt woodland to 15 m tall or non-eucalypt woodland to 10 m tall over a grassy to bracken-dominated understorey with a range of herbs. Occurs on the slopes of freely-draining scoria cones and spatter areas of more coarse boulder-forming flow sources. Soils are fertile but often skeletal.

Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	70 cm	15 / ha
<i>Allocasuarina</i> spp.	50 cm	

Tree Canopy Cover:

%cover	Character Species	Common Name
15%	<i>Eucalyptus viminalis</i>	Manna Gum
	<i>Allocasuarina verticillata</i>	Drooping Sheoak

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	1	5%	T
Medium Shrub	2	10%	MS
Large Herb	3	5%	LH
Medium Herb	6	10%	MH
Small or Prostrate Herb	3	5%	SH
Large Tufted Graminoid	1	15%	LTG
Medium to Small Tufted Graminoid	4	15%	MTG
Medium to Tiny Non-tufted Graminoid	1	5%	MNG
Ground Fern	2	20%	GF
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C

LF Code

Species typical of at least part of EVC range

Common Name

T	<i>Acacia melanoxylon</i>	Blackwood
MS	<i>Bursaria spinosa</i>	Sweet Bursaria
LH	<i>Senecio pinnatifolius</i>	Variable Groundsel
LH	<i>Rumex brownii</i>	Wiry Dock
LH	<i>Senecio quadridentatus</i>	Cotton Fireweed
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
MH	<i>Geranium potentilloides</i>	Cinquefoil Cranesbill
MH	<i>Acaena echinata</i>	Sheep's Burr
MH	<i>Viola hederacea</i> sensu Willis (1972)	Ivy-leaf Violet
SH	<i>Dichondra repens</i>	Kidney-weed
SH	<i>Oxalis exilis</i>	Shady Wood-sorrel
LTG	<i>Poa labillardierei</i>	Common Tussock-grass
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MTG	<i>Dianella revoluta</i> s.l.	Black-anther Flax-lily
MTG	<i>Carex breviculmis</i>	Short-stem Sedge
MTG	<i>Austrodanthonia pilosa</i>	Velvet Wallaby-grass
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
GF	<i>Pteridium esculentum</i>	Austral Bracken

EVC 894: Scoria Cone Woodland - Warrnambool Plain bioregion

Recruitment:

Continuous

Organic Litter:

20 % cover

Logs:

10 m/0.1 ha

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MS	<i>Lycium ferocissimum</i>	African Box-thorn	high	high
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MTG	<i>Briza maxima</i>	Large Quaking-grass	high	low
MTG	<i>Romulea rosea</i>	Onion Grass	high	low
MTG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high

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