

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 2: Coast Banksia Woodland

#### Description:

Restricted to near coastal localities on secondary or tertiary dunes behind Coastal Dune Scrub. Usually dominated by a woodland overstorey of Coast Banksia *Banksia integrifolia* to 15 m tall over a medium shrub layer. The understorey consists of a number of herbs and sedges, including scramblers.

#### Large trees:

Species	DBH(cm)	#/ha
<i>Banksia</i> spp.	50 cm	10 / ha

#### Tree Canopy Cover:

%cover	Character Species	Common Name
15%	<i>Banksia</i> spp.	Coast Banksia

#### Life Forms:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Medium Shrub	3	40%	MS
Small Shrub	1	1%	SS
Large Herb	2	1%	LH
Medium Herb	3	15%	MH
Small or Prostrate Herb	2	10%	SH
Large Tufted Graminoid	1	1%	LTG
Medium to Small Tufted Graminoid	1	5%	MTG
Medium to Tiny Non-tufted Graminoid	1	10%	MNG
Ground Fern	1	10%	GF
Scrambler or Climber	2	10%	SC
Bryophytes/Lichens	na	20%	BL

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Leucopogon parviflorus</i>	Coast Beard-heath
MS	<i>Rhagodia candolleana</i> ssp. <i>candolleana</i>	Seaberry Saltbush
MS	<i>Leptospermum laevigatum</i>	Coast Tea-tree
LH	<i>Senecio minimus</i>	Shrubby Fireweed
LH	<i>Haloragis brownii</i>	Swamp Raspwort
MH	<i>Sambucus gaudichaudiana</i>	White Elderberry
MH	<i>Viola hederacea</i> sensu Willis (1972)	Ivy-leaf Violet
MH	<i>Lobelia anceps</i>	Angled Lobelia
MH	<i>Sarcocornia quinqueflora</i>	Beaded Glasswort
SH	<i>Hydrocotyle sibthorpioides</i>	Shining Pennywort
SH	<i>Dichondra repens</i>	Kidney-weed
GF	<i>Pteridium esculentum</i>	Austral Bracken
SC	<i>Galium australe</i>	Tangled Bedstraw
SC	<i>Clematis microphylla</i>	Small-leaved Clematis

#### Recruitment:

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

#### Organic Litter:

40 % cover

#### Logs:

10 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

## EVC 2: Coast Banksia Woodland - Victorian Volcanic Plain bioregion

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic 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 baxteri</i> s.s.	Brown Stringybark

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	3	15%	T
Medium Shrub	6	15%	MS
Small Shrub	3	5%	SS
Prostrate Shrub	3	5%	PS
Large Herb	4	5%	LH
Medium Herb	15	25%	MH
Small or Prostrate Herb	6	5%	SH
Large Tufted Graminoid	2	5%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	12	15%	MTG
Medium to Tiny Non-tufted Graminoid	4	10%	MNG
Ground Fern	1	10%	GF
Scrambler or Climber	1	1%	SC
Bryophytes/Lichens	na	10%	BL

#### Recruitment:

Continuous

#### Organic Litter:

40 % cover

#### Logs:

15 m/0.1 ha.

# EVC 3: Damp Sands Herb-rich Woodland - Victorian Volcanic Plain bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia melanoxylon</i>	Blackwood
T	<i>Exocarpos cupressiformis</i>	Cherry Ballart
T	<i>Acacia mearnsii</i>	Black Wattle
MS	<i>Banksia marginata</i>	Silver Banksia
MS	<i>Melaleuca squarrosa</i>	Scented Paperbark
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Acacia verticillata</i>	Prickly Moses
SS	<i>Hibbertia riparia</i>	Erect Guinea-flower
SS	<i>Hibbertia fasciculata</i> var. <i>prostrata</i>	Bundled Guinea-flower
SS	<i>Amperea xiphoclada</i> var. <i>xiphoclada</i>	Broom Spurge
PS	<i>Boronia nana</i> var. <i>nana</i>	Dwarf Boronia
PS	<i>Xanthosia pusilla</i> spp. <i>agg.</i>	Heath Xanthosia
PS	<i>Acrotriche serrulata</i>	Honey-pots
LH	<i>Senecio tenuiflorus</i>	Slender Fireweed
LH	<i>Wahlenbergia gracilis</i> s.s.	Sprawling Bluebell
MH	<i>Veronica gracilis</i>	Slender Speedwell
MH	<i>Euchiton collinus</i> s.s.	Creeping Cudweed
MH	<i>Goodenia geniculata</i>	Bent Goodenia
MH	<i>Lagenophora stipitata</i>	Common Bottle-daisy
SH	<i>Nertera granadensis</i>	Matted Nertera
SH	<i>Opercularia varia</i>	Variable Stinkweed
SH	<i>Hydrocotyle laxiflora</i>	Stinking Pennywort
SH	<i>Kennedia prostrata</i>	Running Postman
LTG	<i>Xanthorrhoea minor</i> ssp. <i>lutea</i>	Small Grass-tree
LTG	<i>Deyeuxia quadriseta</i>	Reed Bent-grass
LNG	<i>Gahnia radula</i>	Thatch Saw-sedge
MTG	<i>Lomandra nana</i>	Dwarf Mat-rush
MTG	<i>Austrodanthonia setacea</i> var. <i>setacea</i>	Bristly Wallaby-grass
MTG	<i>Dianella revoluta</i> s.s.	Black-anther Flax-lily
MTG	<i>Poa sieberiana</i> var. <i>sieberiana</i>	Grey Tussock-grass
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
TTG	<i>Isolepis marginata</i>	Little Club-sedge
TTG	<i>Centrolepis strigosa</i> ssp. <i>strigosa</i>	Hairy Centrolepis
GF	<i>Pteridium esculentum</i>	Austral Bracken
SC	<i>Billardiera scandens</i> var. <i>scandens</i>	Common Apple-berry

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LH	<i>Centaurium tenuiflorum</i>	Slender Centaury	low	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Leontodon taraxacoides</i> ssp. <i>taraxacoides</i>	Hairy Hawkbit	high	low
SH	<i>Medicago polymorpha</i>	Burr Medic	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
MNG	<i>Aira caryophylla</i>	Silvery Hair-grass	high	low
MNG	<i>Aira elegantissima</i>	Delicate Hair-grass	high	low

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 6: Sand Heathland

#### Description:

Treeless heathland (or with scattered emergent mallee-form eucalypts) occurring on deep infertile sands. Consists of a low, dense heathy shrub layer and a number of sedges and sedge-like species.

+ eucalypt woodland only components (ignore when assessing shrublands and standardise site condition score as required)

#### Large trees<sup>+</sup>:

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

#### Tree Canopy Cover<sup>+</sup>:

%cover	Character Species	Common Name
10%	<i>Eucalyptus obliqua</i>	Messmate Stringybark

#### Life Forms:

Life form	#Spp	%Cover	LF code
Medium Shrub	6	30%	MS
Small Shrub	8	20%	SS
Prostrate Shrub	3	5%	PS
Medium Herb	3	5%	MH
Small or Prostrate Herb	2	5%	SH
Large Tufted Graminoid	2	10%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	6	15%	MTG
Medium to Tiny Non-tufted Graminoid	1	1%	MNG
Ground Fern	1	1%	GF
Scrambler or Climber	3	5%	SC
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>Banksia marginata</i>	Silver Banksia
MS	<i>Epacris impressa</i>	Common Heath
MS	<i>Leptospermum myrsinoides</i>	Heath Tea-tree
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
SS	<i>Platylobium obtusangulum</i>	Common Flat-pea
SS	<i>Isopogon ceratophyllus</i>	Horny Cone-bush
SS	<i>Pimelea humilis</i>	Common Rice-flower
SS	<i>Tetratheca ciliata</i>	Pink-bells
PS	<i>Acrotriche serrulata</i>	Honey-pots
PS	<i>Gompholobium ecostatum</i>	Dwarf Wedge-pea
PS	<i>Astroloma humifusum</i>	Cranberry Heath
MH	<i>Goodenia geniculata</i>	Bent Goodenia
MH	<i>Drosera peltata</i> ssp. <i>auriculata</i>	Tall Sundew
SH	<i>Viola cleistogamoides</i>	Hidden Violet
LTG	<i>Xanthorrhoea australis</i>	Austral Grass-tree
LTG	<i>Austrostipa mollis</i>	Supple Spear-grass
LNG	<i>Gahnia radula</i>	Thatch Saw-sedge
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MTG	<i>Schoenus apogon</i>	Common Bog-sedge
MTG	r <i>Lepidosperma canescens</i>	Hoary Rapier-sedge
MTG	<i>Austrodanthonia setacea</i>	Bristly Wallaby-grass
MNG	<i>Hypolaena fastigiata</i>	Tassel Rope-rush
TTG	<i>Schoenus breviculmis</i>	Matted Bog-sedge
GF	<i>Lindsaea linearis</i>	Screw Fern
SC	<i>Cassytha pubescens</i> s.s.	Downy Dodder-laurel
SC	<i>Cassytha glabella</i>	Slender Dodder-laurel

## EVC 6: Sand Heathland – Victorian Volcanic Plain bioregion

**Recruitment:**

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

**Organic Litter:**

20% cover

**Logs:**

15 m/0.1 ha.

**Weediness:**

There are no consistent weeds in this EVC.

Published by the Victorian Government Department of Sustainability and Environment December 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)

## EVC/Bioregion Benchmark for Vegetation Quality Assessment

### Victorian Volcanic Plain Bioregion

#### EVC 6\_61: Treed Sand Heathland

##### Description:

Treeless heathland (or with scattered emergent mallee-form eucalypts) occurring on deep infertile sands. Consists of a low, dense heathy shrub layer and a number of sedges and sedge-like species.

##### Large Trees:

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

##### Tree Canopy Cover:

%cover	Character Species	Common Name
10%	<i>Eucalyptus obliqua</i>	Messmate Stringybark

##### Understorey:

Lifeform	#Spp	%Cover	LF Code
Medium Shrub	6	30%	MS
Small Shrub	8	20%	SS
Prostrate Shrub	3	5%	PS
Medium Herb	3	5%	MH
Small or Prostrate Herb	2	5%	SH
Large Tufted Graminoid	2	10%	LTG
Large Non-Tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	6	15%	MTG
Medium to Tiny Non-Tufted Graminoid	1	1%	MNG
Ground Fern	1	1%	GF
Scrambler or Climber	3	5%	SC
Bryophytes/Lichens		10%	BL
Soil Crust		10%	S/C

# EVC 6\_61: Treed Sand Heathland

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Banksia marginata</i>	Silver Banksia
MS	<i>Epacris impressa</i>	Common Heath
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Leptospermum myrsinoides</i>	Heath Tea-tree
SS	<i>Isopogon ceratophyllus</i>	Horny Cone-bush
SS	<i>Pimelea humilis</i>	Common Rice-flower
SS	<i>Platylobium obtusangulum</i>	Common Flat-pea
SS	<i>Tetralthea ciliata</i>	Pink-bells
PS	<i>Acrotriche serrulata</i>	Honey-pots
PS	<i>Astroloma humifusum</i>	Cranberry Heath
PS	<i>Gompholobium ecostatum</i>	Dwarf Wedge-pea
MH	<i>Drosera peltata subsp. auriculata</i>	Tall Sundew
MH	<i>Goodenia geniculata</i>	Bent Goodenia
SH	<i>Viola cleistogamoides</i>	Hidden Violet
LTG	<i>Austrostipa mollis</i>	Supple Spear-grass
LTG	<i>Xanthorrhoea australis</i>	Austral Grass-tree
LNG	<i>Gahnia radula</i>	Thatch Saw-sedge
MTG	<i>Austrodanthonia setacea</i>	Bristly Wallaby-grass
MTG	<i>Lepidosperma canescens</i>	Hoary Rapier-sedge
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MTG	<i>Schoenus apogon</i>	Common Bog-sedge
MNG	<i>Hypolaena fastigiata</i>	Tassel Rope-rush
GF	<i>Lindsaea linearis</i>	Screw Fern
SC	<i>Cassytha glabella</i>	Slender Dodder-laurel
SC	<i>Cassytha pubescens</i> s.s.	Downy Dodder-laurel

## Recruitment:

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

## Organic Litter:

20 % cover

## Logs:

15 m/0.1ha.

**Weediness:** There are no consistent weeds in this EVC

Published by the Victorian Government Department of Sustainability and Environment December 2004

© The State of Victoria Government Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be directed to the Nominated Officer, Copyright, 8 Nicholson St, East Melbourne, Victoria 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss, or other consequences which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 8: Wet Heathland

#### Description:

A low, generally treeless heathland to 5 m tall 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 by a range of sedges, grasses and shrubs.

#### Life forms:

Life form	#Spp	%Cover	LF code
Medium Shrub	7	50%	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	10%	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 - Victorian Volcanic Plain bioregion

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 9: Coastal Saltmarsh

#### Description:

Occurs on and immediately above marine and estuarine tidal flats and contains distinct floristic communities as bands or zones in the same location, depending on the positioning of the various floristic communities in relation to the saline environment. Consists of a range of life forms including succulent herbs, low succulent shrubs, rushes and sedges.

#### Life Forms:

Life form	#Spp	%Cover	LF code
Medium Shrub	1	20%	MS
Small Shrub	2	10%	SS
Medium Herb	2	30%	MH
Small or Prostrate Herb	1	1%	SH
Medium to Small Tufted Graminoid	1	5%	MTG
Medium to Tiny Non-tufted Graminoid	1	5%	MNG
Soil Crust	na	10%	S/C
<b>Total understorey projective foliage cover</b>		<b>65%</b>	

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Sclerostegia arbuscula</i>	Shrubby Glasswort
SS	<i>Suaeda australis</i>	Austral Seablite
SS	<i>Frankenia pauciflora</i> var. <i>gunnii</i>	Southern Sea-heath
MH	<i>Sarcocornia quinqueflora</i> ssp. <i>quinqueflora</i>	Beaded Glasswort
MH	<i>Samolus repens</i>	Creeping Brookweed
SH	<i>Disphyma crassifolium</i> ssp. <i>clavellatum</i>	Rounded Noon-flower

#### 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
MH	<i>Plantago coronopus</i>	Buck's-horn Plantain	high	high
MTG	<i>Critesion maritimum</i>	Sea Barley-grass	high	high
MTG	<i>Lolium rigidum</i>	Wimmera Rye-grass	high	low

# EVC 9: Coastal Saltmarsh - Victorian Volcanic Plain bioregion

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic 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* or Woolly Tea-tree *Leptospermum lanigerum* at the landward edge.

#### Life Forms:

Life form	#Spp	%Cover	LF code
Medium Shrub	1	1%	MS
Large Herb	3	10%	LH
Medium Herb	4	10%	MH
Small or Prostrate Herb	4	15%	SH
Large Tufted Graminoid	1	10%	LNG
Large Non-tufted Graminoid	1	25%	LNG
Medium to Small Tufted Graminoid	2	5%	MTG
Medium to Tiny Non-tufted Graminoid	1	1%	MNG
Scrambler or Climber	1	5%	SC
<b>Total understorey projective foliage cover</b>		<b>80%</b>	

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Leptospermum lanigerum</i>	Woolly Tea-tree
LH	<i>Persicaria decipiens</i>	Slender Knotweed
MH	<i>Samolus repens</i>	Creeping Brookweed
MH	<i>Lobelia anceps</i>	Angled Lobelia
SH	<i>Selliera radicans</i>	Shiny Swamp-mat
SH	<i>Crassula helmsii</i>	Swamp Crassula
SH	<i>Mimulus repens</i>	Creeping Monkey-flower
SH	<i>Leptinella reptans s.l.</i>	Creeping Cotula
LTG	<i>Poa labillardierei</i>	Common Tussock-grass
LNG	<i>Phragmites australis</i>	Common Reed
MNG	<i>Triglochin striatum</i>	Streaked Arrowgrass
SC	<i>Calystegia sepium</i>	Large Bindweed

#### Recruitment:

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

#### Organic Litter:

10% cover

#### Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LH	<i>Aster subulatus</i>	Aster-weed	high	low
LH	<i>Plantago lanceolata</i>	Ribwort	high	low
LH	<i>Rumex crispus</i>	Curled Dock	high	low
MH	<i>Ranunculus repens</i>	Creeping Buttercup	high	high
MH	<i>Lotus uliginosus</i>	Greater Bird's-foot Trefoil	high	high
MH	<i>Cotula coronopifolia</i>	Water Buttons	high	high
MH	<i>Atriplex prostrata</i>	Hastate Orache	high	high
MTG	<i>Agrostis stolonifera</i>	Creeping Bent	high	high
MNG	<i>Polypogon viridis</i>	Water Bent	high	high



# EVC 10: Estuarine Wetland - Victorian Volcanic Plain bioregion

Published by the Victorian Government Department of Sustainability and Environment November 2007

© The State of Victoria Department of Sustainability and Environment 2007

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic 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 obliqua</i>	Messmate Stringybark
	<i>Eucalyptus willisii</i>	Shining Peppermint
	<i>Eucalyptus baxteri</i> s.s.	Brown Stringybark

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	2	10%	T
Medium Shrub	6	15%	MS
Small Shrub	3	5%	SS
Prostrate Shrub	2	1%	PS
Large Herb	2	5%	LH
Medium Herb	8	20%	MH
Small or Prostrate Herb	2	5%	SH
Large Tufted Graminoid	2	5%	LTG
Large Non-tufted Graminoid	2	10%	LNG
Medium to Small Tufted Graminoid	5	10%	MTG
Medium to Tiny Non-tufted Graminoid	1	5%	MNG
Ground Fern	1	5%	GF
Scrambler or Climber	2	1%	SC
Bryophytes/Lichens	na	10%	BL

# EVC 16: Lowland Forest - Victorian Volcanic Plain bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Exocarpos cupressiformis</i>	Cherry Ballart
T	<i>Acacia melanoxylon</i>	Blackwood
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Correa reflexa</i>	Common Correa
MS	<i>Banksia marginata</i>	Silver Banksia
MS	<i>Acacia verticillata</i>	Prickly Moses
SS	<i>Tetratheca ciliata</i>	Pink-bells
SS	<i>Hibbertia riparia</i>	Erect Guinea-flower
SS	<i>Platylobium obtusangulum</i>	Common Flat-pea
SS	<i>Pultenaea stricta</i>	Rigid Bush-pea
PS	<i>Acrotriche serrulata</i>	Honey-pots
PS	<i>Xanthosia dissecta s.l.</i>	Cut-leaf Xanthosia
PS	<i>Astroloma humifusum</i>	Cranberry Heath
LH	<i>Senecio tenuiflorus</i>	Slender Fireweed
LH	<i>Dipodium punctatum s.l.</i>	Hyacinth Orchid
LH	<i>Senecio glomeratus</i>	Annual Fireweed
MH	<i>Viola hederacea sensu Entwisle (1996)</i>	Ivy-leaf Violet
MH	<i>Burchardia umbellata</i>	Milkmaids
MH	<i>Helichrysum scorpioides</i>	Button Everlasting
MH	<i>Lagenophora stipitata</i>	Common Bottle-daisy
SH	<i>Hydrocotyle laxiflora</i>	Stinking Pennywort
LTG	<i>Xanthorrhoea minor ssp. lutea</i>	Small Grass-tree
LTG	<i>Deyeuxia quadriseta</i>	Reed Bent-grass
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
LNG	<i>Gahnia radula</i>	Thatch Saw-sedge
LNG	<i>Austrostipa muelleri</i>	Wiry Spear-grass
MTG	<i>Dianella revoluta s.s.</i>	Black-anther Flax-lily
MTG	<i>Lepidosperma filiforme</i>	Common Rapier-sedge
MTG	<i>Dichelachne rara</i>	Common Plume-grass
MTG	<i>Poa morrisii</i>	Soft Tussock-grass
MNG	<i>Poa tenera</i>	Slender Tussock-grass
MNG	<i>Microlaena stipoides var. stipoides</i>	Weeping Grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
SC	<i>Cassytha pubescens s.s.</i>	Downy Dodder-laurel
SC	<i>Billardiera scandens</i>	Common Apple-berry
SC	<i>Comesperma volubile</i>	Love Creeper
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
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 18: Riparian Forest

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	20%	T
Medium Shrub	4	20%	MS
Large Herb	1	5%	LH
Medium Herb	3	10%	MH
Small or Prostrate Herb	1	1%	SH
Large Tufted Graminoid	2	20%	LTG
Medium to Small Tufted Graminoid	3	15%	MTG
Medium to Tiny Non-tufted Graminoid	1	5%	MNG
Ground Fern	2	10%	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>Pomaderris aspera</i>	Hazel Pomaderris
T	<i>Acacia melanoxylon</i>	Blackwood
T	<i>Notelaea ligustrina</i>	Privet Mock-olive
MS	<i>Olearia lirata</i>	Snowy Daisy-bush
MS	<i>Leptospermum lanigerum</i>	Woolly Tea-tree
MS	<i>Ozothamnus ferrugineus</i>	Tree Everlasting
MS	<i>Melaleuca squarrosa</i>	Scented Paperbark
LH	<i>Urtica incisa</i>	Scrub Nettle
MH	<i>Austrocynoglossum latifolium</i>	Forest Hound's-tongue
SH	<i>Lobelia pedunculata s.l.</i>	Matted Pratia
SH	<i>Lobelia pratoides</i>	Poison Lobelia
LTG	<i>Gahnia clarkei</i>	Tall Saw-sedge
LTG	<i>Lepidosperma laterale var. majus</i>	Variable Sword-sedge
LTG	<i>Carex appressa</i>	Tall Sedge
MTG	<i>Poa ensiformis</i>	Sword Tussock-grass
MTG	<i>Carex gaudichaudiana</i>	Fen Sedge
MTG	<i>Isolepis inundata</i>	Swamp Club-sedge
MNG	<i>Poa tenera</i>	Slender Tussock-grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Blechnum wattsii</i>	Hard Water-fern
GF	<i>Blechnum nudum</i>	Fishbone Water-fern
SC	<i>Clematis aristata</i>	Mountain Clematis

# EVC 18: Riparian Forest - Victorian Volcanic Plain bioregion

**Recruitment:**

Continuous

**Organic Litter:**

50 % cover

**Logs:**

30 m/0.1 ha.

**Weediness:**

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MH	<i>Rorippa nasturtium-aquaticum</i>	Watercress	high	low

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 20: Heathy Dry Forest

#### Description:

Grows on shallow, rocky skeletal soils on a variety of geologies and on a range of landforms from gently undulating hills to exposed aspects on ridge tops and steep slopes at a range of elevations. The overstorey is a low, open eucalypt forest, poor in form to 20 m tall with an open crown cover. The understorey is dominated by a low, sparse to dense layer of ericoid-leaved shrubs including heaths and peas. Graminoids are frequently present in the ground layer, but do not provide much cover.

#### Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	60 cm	20 / ha

#### Tree Canopy Cover:

%cover	Character Species	Common Name
30%	<i>Eucalyptus goniocalyx</i> s.l.	Bundy
	<i>Eucalyptus macrorhyncha</i>	Red Stringybark
	<i>Eucalyptus dives</i>	Broad-leaved Peppermint
	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Medium Shrub	2	15%	MS
Small Shrub	3	20%	SS
Large Herb	1	1%	LH
Medium Herb	2	5%	MH
Small or Prostrate Herb	2	5%	SH
Large Tufted Graminoid	1	1%	LTG
Medium to Small Tufted Graminoid	4	20%	MTG
Medium to Tiny Non-tufted Graminoid	1	1%	MNG
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C
<b>Total understorey projective foliage cover</b>		<b>75%</b>	

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Monotoca scoparia</i>	Prickly Broom-heath
MS	<i>Acacia pycnantha</i>	Golden Wattle
MS	<i>Acacia paradoxa</i>	Hedge Wattle
SS	<i>Phyllanthus hirtellus</i>	Thyme Spurge
SS	<i>Hovea heterophylla</i>	Common Hovea
SS	<i>Leucopogon virgatus</i>	Common Beard-heath
SS	<i>Tetralochea labillardierei</i>	Glandular Pink-bells
PS	<i>Bossiaea prostrata</i>	Creeping Bossiaea
LH	<i>Senecio tenuiflorus</i>	Slender Fireweed
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Wahlenbergia gracilis</i> s.l.	Sprawling Bluebell
SH	<i>Opercularia varia</i>	Variable Stinkweed
SH	<i>Goodenia lanata</i>	Trailing Goodenia
MTG	<i>Joycea pallida</i>	Silvertop Wallaby-grass
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MTG	<i>Stylidium graminifolium</i> s.l.	Grass Trigger-plant
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass

# EVC 20: Heathy Dry Forest - Victorian Volcanic Plain bioregion

**Recruitment:**

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

**Organic Litter:**

20 % 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
MH	<i>Cicendia quadrangularis</i>	Square Cicendia	high	low
MH	<i>Trifolium campestre</i> var. <i>campestre</i>	Hop Clover	high	low
MH	<i>Trifolium dubium</i>	Suckling Clover	high	low
MH	<i>Trifolium subterraneum</i>	Subterranean Clover	high	low
SH	<i>Trifolium glomeratum</i>	Cluster Clover	high	low
LNG	<i>Avena fatua</i>	Wild Oat	high	low
MTG	<i>Briza minor</i>	Lesser Quaking-grass	high	low
MTG	<i>Romulea rosea</i>	Onion Grass	high	low
MNG	<i>Aira elegantissima</i>	Delicate Hair-grass	high	low
MNG	<i>Juncus capitatus</i>	Capitate Rush	high	low
MNG	<i>Aira caryophylla</i>	Silvery Hair-grass	high	low
TTG	<i>Cyperus tenellus</i>	Tiny Flat-sedge	high	low

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 21: Shrubby Dry Forest

#### Description:

Occurs on a range of geologies on exposed aspects such as ridge-lines and medium to steep upper slopes, often in high rainfall areas and on shallow infertile soils. The overstorey is a low, open forest to 25 m tall characterised by the diversity and variability of the eucalypts. The understorey often lacks a secondary tree layer but contains a well-developed medium to low shrub layer. The ground layer is often very sparse with tussock-forming graminoids being the dominant life form.

#### 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 tricarpa</i>	Red Ironbark
	<i>Eucalyptus baxteri</i>	Brown Stringybark
	<i>Eucalyptus polyanthemus</i>	Red Box

#### Life Forms:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	1	5%	T
Medium Shrub	4	20%	MS
Small Shrub	3	10%	SS
Prostrate Shrub	1	1%	PS
Large Herb	1	1%	LH
Medium Herb	2	5%	MH
Large Tufted Graminoid	1	15%	LTG
Medium to Small Tufted Graminoid	2	10%	MTG
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C
<b>Total understorey projective foliage cover</b>		<b>75%</b>	

# EVC 21: Shrubby Dry Forest – Victorian Volcanic Plain bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia pycnantha</i>	Golden Wattle
MS	<i>Spyridium parvifolium</i>	Dusty Miller
MS	<i>Acacia myrtifolia</i>	Myrtle Wattle
MS	<i>Daviesia leptophylla</i>	Narrow-leaf Hop-bush
MS	<i>Pultenaea daphnoides</i>	Large-leaf Bush-pea
SS	<i>Hibbertia stricta</i> s.l.	Upright Guinea-flower
SS	<i>Platylobium obtusangulum</i>	Common Flat-pea
SS	<i>Isopogon ceratophyllus</i>	Horny Cone-bush
SS	<i>Pultenaea humilis</i>	Dwarf Bush-pea
PS	<i>Acrotriche serrulata</i>	Honey-pots
MH	<i>Drosera peltata</i> ssp. <i>auriculata</i>	Tall Sundew
LTG	<i>Xanthorrhoea australis</i>	Austral Grass-tree
LTG	<i>Joycea pallida</i>	Silvertop Wallaby-grass
MTG	<i>Dianella revoluta</i>	Black-anther Flax-lily
MTG	<i>Lepidosperma semiteres</i>	Wire Rapier-sedge
MTG	<i>Poa australis</i> spp. agg.	Tussock Grass

## Recruitment:

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

## Organic Litter:

20 % cover

## Logs:

20 m/0.1 ha.

## Weediness:

There are no consistent weeds in this EVC.

Published by the Victorian Government Department of Sustainability and Environment December 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 22: Grassy Dry Forest

#### Description:

Occurs on a variety of gradients and altitudes and on a range of geologies. The overstorey is dominated by a low to medium height forest of eucalypts to 20 m tall, sometimes resembling an open woodland with a secondary, smaller tree layer including a number of Acacia species. The understorey usually consists of a sparse shrub layer of medium height. Grassy Dry Forest is characterised by a ground layer dominated by a high diversity of drought-tolerant grasses and herbs, often including a suite of fern species.

#### 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 macrorhyncha</i>	Red Stringybark
	<i>Eucalyptus goniacalyx</i> s.l.	Bundy
	<i>Eucalyptus obliqua</i>	Messmate Stringybark

#### 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	3	5%	SS
Prostrate Shrub	1	1%	PS
Large Herb	3	5%	LH
Medium Herb	7	20%	MH
Small or Prostrate Herb	2	5%	SH
Large Tufted Graminoid	1	5%	LTG
Medium to Small Tufted Graminoid	7	30%	MTG
Medium to Tiny Non-tufted Graminoid	1	1%	MNG
Ground Fern	1	1%	GF
Scrambler or Climber	1	1%	SC
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 dealbata</i>	Silver Wattle
MS	<i>Epacris impressa</i>	Common Heath
SS	<i>Hovea heterophylla</i>	Common Hovea
SS	<i>Pimelea humilis</i>	Common Rice-flower
SS	<i>Acacia aculeatissima</i>	Thin-leaf Wattle
PS	<i>Acrotriche serrulata</i>	Honey-pots
LH	<i>Senecio tenuiflorus</i>	Slender Fireweed
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Viola hederacea</i> sensu Willis (1972)	Ivy-leaf Violet
MH	<i>Hypericum gramineum</i>	Small St John's Wort
SH	<i>Dichondra repens</i>	Kidney-weed
SH	<i>Hydrocotyle laxiflora</i>	Stinking Pennywort
SH	<i>Goodenia lanata</i>	Trailing Goodenia
MTG	<i>Joycea pallida</i>	Silvertop Wallaby-grass
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MTG	<i>Dianella revoluta</i> s.l.	Black-anther Flax-lily
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
SC	<i>Hardenbergia violacea</i>	Purple Coral-pea



## EVC 22: Grassy Dry Forest - Victorian Volcanic Plain bioregion

**Recruitment:**

Continuous

**Organic Litter:**

20 % 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
MTG	<i>Briza maxima</i>	Large Quaking-grass	high	low
MNG	<i>Aira elegantissima</i>	Delicate Hair-grass	high	low

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic 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 ovata</i>	Swamp Gum
	<i>Eucalyptus obliqua</i>	Messmate Stringybark
	<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	2	10%	T
Medium Shrub	3	20%	MS
Small Shrub	1	1%	SS
Large Herb	2	5%	LH
Medium Herb	6	15%	MH
Small or Prostrate Herb	3	5%	SH
Large Tufted Graminoid	3	20%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	5	10%	MTG
Medium to Tiny Non-tufted Graminoid	2	10%	MNG
Ground Fern	1	5%	GF
Scrambler/Climber	2	5%	SC
Bryophytes/Lichens	na	20%	BL

# EVC 23: Herb-rich Foothill Forest - Victorian Volcanic 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>Acacia verticillata</i>	Prickly Moses
MS	<i>Ozothamnus ferrugineus</i>	Tree Everlasting
MS	<i>Bursaria spinosa</i>	Sweet Bursaria
SS	<i>Pimelea humilis</i>	Common Rice-flower
SS	<i>Hibbertia riparia</i>	Erect Guinea-flower
PS	<i>Bossiaea prostrata</i>	Creeping Bossiaea
PS	<i>Acrotriche serrulata</i>	Honey-pots
LH	<i>Senecio tenuiflorus</i>	Slender Fireweed
LH	<i>Pterostylis longifolia</i> s.l.	Tall Greenhood
MH	<i>Euchiton collinus</i> s.s.	Creeping Cudweed
MH	<i>Hypericum gramineum</i>	Small St John's Wort
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Viola hederacea</i> sensu Willis (1972)	Ivy-leaf Violet
SH	<i>Hydrocotyle laxiflora</i>	Stinking Pennywort
LTG	<i>Juncus procerus</i>	Tall Rush
LTG	<i>Lepidosperma laterale</i> var. <i>majus</i>	Variable Sword-sedge
LTG	<i>Deyeuxia quadriseta</i>	Reed Bent-grass
LNG	<i>Lepidosperma longitudinale</i>	Pithy Sword-sedge
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MTG	<i>Lomandra sororia</i>	Small Mat-rush
MTG	<i>Lepidosperma laterale</i> var. <i>laterale</i>	Variable Sword-sedge
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
MNG	<i>Poa tenera</i>	Slender Tussock-grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
SC	<i>Clematis aristata</i>	Mountain Clematis
SC	<i>Billardiera scandens</i>	Common Apple-berry

## 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
MH	<i>Centaureum erythraea</i>	Common Centaury	high	low
MNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MTG	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	high	high

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 45: Shrubby Foothill Forest

#### Description:

Occurs on ridges and mainly on southern and eastern slopes in association with Damp Forest or Wet Forest on moderately fertile soils and at a range of elevations. The overstorey is a medium eucalypt forest to 25 m tall over an understorey 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 radiata</i> ssp. <i>radiata</i>	Narrow-leaf Peppermint
	<i>Eucalyptus dives</i>	Broad-leaved Peppermint
	<i>Eucalyptus rubida</i>	Candlebark

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	1	5%	T
Medium Shrub	5	20%	MS
Small Shrub	3	10%	SS
Prostrate Shrub	2	5%	PS
Large Herb	1	1%	LH
Medium Herb	7	15%	MH
Large Tufted Graminoid	2	5%	LTG
Large Non-tufted Graminoid	1	15%	LNG
Medium to Small Tufted Graminoid	5	20%	MTG
Medium to Tiny Non-tufted Graminoid	1	5%	MNG
Ground Fern	2	10%	GF
Scrambler or Climber	1	1%	SC
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C

# EVC 45: Shrubby Foothill Forest - Victorian Volcanic Plain bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Exocarpos cupressiformis</i>	Cherry Ballart
MS	<i>Epacris impressa</i>	Common Heath
MS	<i>Acacia mucronata ssp. longifolia</i>	Narrow-leaf Wattle
MS	<i>Acacia verticillata</i>	Prickly Moses
MS	<i>Pultenaea gunnii</i>	Golden Bush-pea
SS	<i>Olearia erubescens</i>	Moth Daisy-bush
SS	k <i>Pultenaea muelleri var. reflexifolia</i>	Mueller's Bush-pea
SS	<i>Acacia aculeatissima</i>	Thin-leaf Wattle
SS	<i>Dillwynia cinerascens s.l.</i>	Grey Parrot-pea
PS	<i>Acrotriche serrulata</i>	Honey-pots
PS	<i>Acrotriche prostrata</i>	Trailing Ground-berry
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Viola hederacea sensu Willis (1972)</i>	Ivy-leaf Violet
MH	<i>Hydrocotyle hirta</i>	Hairy Pennywort
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
LTG	<i>Gahnia sieberiana</i>	Red-fruit Saw-sedge
LNG	<i>Tetrarrhena juncea</i>	Forest Wire-grass
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
MTG	<i>Joycea pallida</i>	Silvertop Wallaby-grass
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MTG	<i>Dianella tasmanica</i>	Tasman Flax-lily
MNG	<i>Microlaena stipoides var. stipoides</i>	Weeping Grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
SC	<i>Billardiera scandens</i>	Common Apple-berry

## Recruitment:

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

## 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

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 47: Valley Grassy Forest

#### Description:

Valley Grassy Forest occurs under moderate rainfall regimes of 700-800 mm per annum on fertile well-drained colluvial or alluvial soils on gently undulating lower slopes and valley floors. The tall, open overstorey to 25 m tall may carry a variety of eucalypts, usually species which prefer more moist or more fertile conditions over a sparse shrub cover. In season, a rich array of herbs, lilies, grasses and sedges dominate the ground layer but at the drier end of the spectrum the ground layer may be sparse and slightly less diverse, but with the moisture-loving species still remaining.

#### Large trees:

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

#### Tree Canopy Cover:

%cover	Character Species	Common Name
20%	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
	<i>Eucalyptus rubida</i>	Candlebark
	<i>Eucalyptus melliodora</i>	Yellow Box

#### 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
Prostrate Shrub	1	1%	PS
Large Herb	2	5%	LH
Medium Herb	11	20%	MH
Small or Prostrate Herb	3	5%	SH
Large Tufted Graminoid	2	5%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	16	40%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Scrambler or Climber	1	1%	SC
Bryophytes/Lichens	na	20%	BL

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia mearnsii</i>	Black Wattle
MS	<i>Myoporum</i> sp. 1	Sticky Boobialla
MS	<i>Acacia pycnantha</i>	Golden Wattle
MS	<i>Bursaria spinosa</i> ssp. <i>spinosa</i>	Sweet Bursaria
SS	<i>Pimelea humilis</i>	Common Rice-flower
PS	<i>Bossiaea prostrata</i>	Creeping Bossiaea
LH	<i>Veronica gracilis</i>	Slender Speedwell
MH	<i>Poranthera microphylla</i>	Small Poranthera
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Drosera peltata</i> ssp. <i>auriculata</i>	Tall Sundew
SH	<i>Solenogyne dominii</i>	Smooth Solenogyne
SH	<i>Oxalis corniculata</i> s.l.	Yellow Wood-sorrel
SH	<i>Oxalis exilis</i>	Shady Wood-sorrel
SH	<i>Opercularia varia</i>	Variable Stinkweed
LTG	<i>Austrostipa rudis</i>	Veined Spear-grass
LTG	<i>Austrostipa mollis</i>	Supple Spear-grass
LNG	<i>Gahnia radula</i>	Thatch Saw-sedge
MTG	<i>Themeda triandra</i>	Kangaroo Grass
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MTG	<i>Poa sieberiana</i>	Grey Tussock-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>Billardiera scandens</i>	Common Apple-berry

# EVC 47: Valley Grassy Forest - Victorian Volcanic Plain bioregion

**Recruitment:**

Continuous

**Organic Litter:**

20 % cover

**Logs:**

20 m/0.1 ha.

**Weediness:**

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LH	<i>Plantago lanceolata</i>	Ribwort	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Centaureum erythraea</i>	Common Centaury	high	low
LTG	<i>Watsonia meriana</i> var. <i>bulbillifera</i>	Bulbil Watsonia	high	high
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MTG	<i>Briza maxima</i>	Large Quaking-grass	high	low
MTG	<i>Romulea rosea</i>	Onion Grass	high	low
MTG	<i>Ehrharta longiflora</i>	Annual Veldt-grass	high	low
MTG	<i>Ehrharta erecta</i> var. <i>erecta</i>	Panic Veldt-grass	high	high
MTG	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	high	high
MTG	<i>Sporobolus africanus</i>	Rat-tail Grass	high	high
MTG	<i>Paspalum dilatatum</i>	Paspalum	high	high
MTG	<i>Agrostis capillaris</i> s.l.	Brown-top Bent	high	high
MNG	<i>Dactylis glomerata</i>	Cocksfoot	high	high
SC	<i>Galium aparine</i>	Cleavers	high	low

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic 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 usually 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 baxteri</i> s.l.	Brown Stringybark

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	1	5%	T
Medium Shrub	7	35%	MS
Small Shrub	9	20%	SS
Prostrate Shrub	3	5%	PS
Medium Herb	8	10%	MH
Small or Prostrate Herb	1	1%	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	3	5%	MNG
Ground Fern	1	5%	GF
Scrambler or Climber	1	1%	SC
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C

# EVC 48: Heathy Woodland - Victorian Volcanic Plain bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Exocarpos cupressiformis</i>	Cherry Ballart
MS	<i>Banksia marginata</i>	Silver Banksia
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Epacris impressa</i>	Common Heath
MS	<i>Acacia verticillata</i>	Prickly Moses
SS	<i>Tetralochea ciliata</i>	Pink-bells
SS	<i>Platylobium obtusangulum</i>	Common Flat-pea
SS	<i>Astroloma conostephioides</i>	Flame Heath
SS	<i>Boronia pilosa</i>	Hairy Boronia
PS	<i>Acrotriche serrulata</i>	Honey-pots
PS	<i>Xanthosia dissecta s.l.</i>	Cut-leaf Xanthosia
PS	<i>Boronia nana</i>	Dwarf Boronia
MH	<i>Helichrysum scorpioides</i>	Button Everlasting
MH	<i>Drosera peltata ssp. auriculata</i>	Tall Sundew
MH	<i>Viola hederacea sensu Entwistle (1996)</i>	Ivy-leaf Violet
SH	<i>Drosera whittakeri ssp. aberrans</i>	Scented Sundew
LTG	<i>Xanthorrhoea minor ssp. lutea</i>	Small Grass-tree
LNG	<i>Gahnia radula</i>	Thatch Saw-sedge
MTG	<i>Poa morrisii</i>	Soft Tussock-grass
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MTG	<i>Lepidosperma filiforme</i>	Common Rapier-sedge
MNG	<i>Tetrarrhena distichophylla</i>	Hairy Rice-grass
MNG	<i>Hypolaena fastigiata</i>	Tassel Rope-rush
MNG	<i>Microlaena stipoides var. stipoides</i>	Weeping Grass
MNG	<i>Empodisma minus</i>	Spreading Rope-rush
GF	<i>Pteridium esculentum</i>	Austral Bracken
EP	<i>Amyema pendula</i>	Drooping Mistletoe
SC	<i>Billardiera scandens</i>	Common Apple-berry

## Recruitment:

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

## Organic Litter:

40 % cover

## Logs:

15 m/0.1 ha.

## Weediness:

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

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic 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 Woolly Tea-tree *Leptospermum lanigerum* which often forms a dense impenetrable thicket, out-competing other species. Emergent trees (eg. Swamp Gum *Eucalyptus ovata*) may some times 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
60%	<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
Large Herb	5	10%	LH
Medium Herb	13	30%	MH
Small or Prostrate Herb	2	5%	SH
Large Tufted Graminoid	9	15%	LTG
Large Non-tufted Graminoid	1	1%	LNG
Medium to Small Tufted Graminoid	7	15%	MTG
Bryophytes/Lichens	na	20%	BL

LF Code	Species typical of at least part of EVC range	Common Name
LH	<i>Persicaria decipiens</i>	Slender Knotweed
LH	<i>Villarsia reniformis</i>	Running Marsh-flower
LH	<i>Epilobium pallidiflorum</i>	Showy Willow-herb
MH	<i>Hydrocotyle pterocarpa</i>	Wing Pennywort
MH	<i>Lilaeopsis polyantha</i>	Australian Lilaeopsis
MH	<i>Hydrocotyle muscosa</i>	Mossy Pennywort
SH	<i>Lobelia pedunculata s.l.</i>	Matted Pratia
SH	<i>Crassula helmsii</i>	Swamp Crassula
LTG	<i>Juncus procerus</i>	Tall Rush
LTG	<i>Gahnia clarkei</i>	Tall Saw-sedge
LTG	<i>Deyeuxia quadriseta</i>	Reed Bent-grass
LTG	<i>Amphibromus recurvatus</i>	Dark Swamp Wallaby-grass
MTG	<i>Schoenus maschalinus</i>	Leafy Bog-sedge
MTG	k <i>Lachnagrostis filiformis (perennial variety)</i>	Wetland Blown-grass
MTG	<i>Juncus planifolius</i>	Broad-leaf Rush

#### Recruitment:

Continuous

#### Organic Litter:

20% Cover



## EVC 53: Swamp Scrub - Victorian Volcanic Plain bioregion

### Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LH	<i>Rumex crispus</i>	Curled Dock	high	low
MH	<i>Lotus suaveolens</i>	Hairy Bird's-foot Trefoil	high	high
MH	<i>Leontodon taraxacoides ssp. taraxacoides</i>	Hairy Hawkbit	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MTG	<i>Juncus bulbosus</i>	Bulbous Rush	high	high

Published by the Victorian Government Department of Sustainability and Environment November 2007

© The State of Victoria Department of Sustainability and Environment 2007

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 55\_61: 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. This variant occupies areas receiving approximately 500 – 700 mm annual rainfall.

#### 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\_61: Plains Grassy Woodland - Victorian Volcanic 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

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)

## EVC/Bioregion Benchmark for Vegetation Quality Assessment

### Victorian Volcanic Plain Bioregion

#### EVC 55\_62: Riverina Plains Grassy Woodland (syn. EVC 803 - Plains

##### Description:

Grassy or sedgy woodland to 15 m tall with large inter-tussock spaces potentially supporting a range of annual or geophytic herbs adapted to low summer rainfall, with low overall biomass. Mostly occurs on terrain of low relief in areas receiving <600 mm rainfall per annum. Fertile, sometimes seasonally waterlogged, mostly silty, loamy or clay topsoils, with heavy subsoils, derived largely from former Quaternary swamp deposits.

##### Large Trees:

Species	DBH(cm)	#/ha
<i>Allocasuarina luehmannii</i>	40 cm	15 / ha
<i>Eucalyptus spp.</i>	70 cm	

##### Tree Canopy Cover:

%cover	Character Species	Common Name
15%	<i>Eucalyptus melliodora</i>	Yellow Box
	<i>Eucalyptus microcarpa</i>	Grey Box
	<i>Allocasuarina luehmannii</i>	Buloke
	<i>Eucalyptus leucoxylon</i>	Yellow Gum

##### Understorey:

Lifeform	#Spp	%Cover	LF Code
Immature Canopy Tree		5%	IT
Medium Shrub	2	5%	MS
Small Shrub	2	5%	SS
Prostrate Shrub	1	1%	PS
Large Herb	1	1%	LH
Medium Herb	20	20%	MH
Small or Prostrate Herb	4	10%	SH
Large Tufted Graminoid	1	1%	LTG
Medium to Small Tufted Graminoid	16	45%	MTG
Medium to Tiny Non-Tufted Graminoid	3	5%	MNG
Bryophytes/Lichens		10%	BL
Soil Crust		10%	S/C

# EVC 55\_62: Riverina Plains Grassy Woodland (syn. EVC 803 - Plains Woodland)

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Acacia acinacea</i> s.l.	Gold-dust Wattle
MS	<i>Acacia pycnantha</i>	Golden Wattle
SS	<i>Eutaxia microphylla</i> var. <i>microphylla</i>	Common Eutaxia
PS	<i>Astroloma humifusum</i>	Cranberry Heath
LH	<i>Senecio quadridentatus</i>	Cotton Fireweed
MH	<i>Acaena echinata</i>	Sheep's Burr
MH	<i>Calocephalus citreus</i>	Lemon Beauty-heads
MH	<i>Maireana enchylaenoides</i>	Wingless Bluebush
MH	<i>Plantago gaudichaudii</i>	Narrow Plantain
SH	<i>Daucus glochidiatus</i>	Australian Carrot
SH	<i>Goodenia pinnatifida</i>	Cut-leaf Goodenia
SH	<i>Oxalis perennans</i>	Grassland Wood-sorrel
SH	<i>Solenogyne dominii</i>	Smooth Solenogyne
LTG	<i>Austrostipa bigeniculata</i>	Kneed Spear-grass
MTG	<i>Austrodanthonia caespitosa</i>	Common Wallaby-grass
MTG	<i>Austrodanthonia setacea</i>	Bristly Wallaby-grass
MTG	<i>Austrostipa scabra</i>	Rough Spear-grass
MTG	<i>Dianella revoluta</i> var. <i>revoluta</i> s.l.	Black-anther Flax-lily
MNG	<i>Wurmbea dioica</i>	Common Early Nancy

## Recruitment:

Continuous.

## Organic Litter:

10 % cover

## Logs:

10 m/0.1ha.

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
MH	<i>Hypochoeris glabra</i>	Smooth Cat's-ear	high	low
MH	<i>Arctotheca calendula</i>	Cape Weed	high	low
MH	<i>Petrorhagia dubia</i>	Velvety Pink	high	low
MH	<i>Trifolium dubium</i>	Suckling Clover	high	low
MH	<i>Anagallis arvensis</i>	Pimpernel	high	low
SH	<i>Trifolium glomeratum</i>	Cluster Clover	high	low
LNG	<i>Avena fatua</i>	Wild Oat	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
MTG	<i>Lolium rigidum</i>	Wimmera Rye-grass	high	low
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MNG	<i>Vulpia myuros</i>	Rat's-tail Fescue	high	low
MNG	<i>Juncus capitatus</i>	Capitate Rush	high	low
MNG	<i>Bromus rubens</i>	Red Brome	high	low
MH	<i>Trifolium angustifolium</i> var. <i>angustifolium</i>	Narrow-leaf Clover	high	low

Published by the Victorian Government Department of Sustainability and Environment  
© The State of Victoria Government Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be directed to the Nominated Officer, Copyright, 8 Nicholson St, East Melbourne, Victoria 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss, or other consequences which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 55\_63: Higher Rainfall Plains Grassy Woodland

#### Description:

An open, eucalypt woodland to 15 m tall or acacia/sheoak woodland to 10 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. This variant occupies areas receiving greater than 700 mm annual rainfall.

#### Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	70 cm	15 / ha
<i>Acacia melanoxylon</i>	40 cm	
<i>Allocasuarina verticillata</i>	40 cm	

#### Tree Canopy Cover:

%cover	Character Species	Common Name
20%	<i>Eucalyptus ovata</i>	Swamp Gum
	<i>Eucalyptus viminalis</i>	Manna Gum
	<i>Acacia melanoxylon</i>	Blackwood
	<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	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>Leptorhynchus squamatus</i>	Scaly Buttons
MH	<i>Chysocephalum apiculatum</i>	Common Everlasting
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>	Knead Spear-grass
MTG	<i>Themeda triandra</i>	Kangaroo Grass
MTG	<i>Poa morrisii</i>	Soft Tussock-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

# EVC 55\_63: Higher Rainfall Plains Grassy Woodland - Victorian Volcanic Plain bioregion

## Organic Litter:

10 % 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
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

Published by the Victorian Government Department of Sustainability and Environment April 2005

© The State of Victoria Department of Sustainability and Environment 2005

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 56: Floodplain Riparian Woodland

#### Description:

An open eucalypt woodland to 20 m tall over a medium to tall shrub layer with a ground layer consisting of amphibious and aquatic herbs and sedges. Occurs along the banks and floodplains of the larger meandering rivers and major creeks, often in conjunction with one or more floodplain wetland communities. Elevation and rainfall are relatively low and soils are fertile alluviums subject to periodic flooding and inundation.

#### Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	80 cm	15 / ha

#### Tree Canopy Cover:

%cover	Character Species	Common Name
20%	<i>Eucalyptus camaldulensis</i>	River Red-gum
	<i>Eucalyptus ovata</i>	Swamp Gum

#### Life Forms:

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	2	5%	LH
Medium Herb	4	10%	MH
Small or Prostrate Herb	3	10%	SH
Large Tufted Graminoid	3	15%	LTG
Large Non-tufted Graminoid	1	10%	LNG
Medium to Small Tufted Graminoid	5	15%	MTG
Medium to Tiny Non-tufted Graminoid	3	10%	MNG
Scrambler or Climber	1	5%	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>Bursaria spinosa</i> ssp. <i>spinosa</i>	Sweet Bursaria
MS	<i>Acacia pycnantha</i>	Golden Wattle
MS	<i>Myoporum</i> sp. 1	Sticky Boobialla
LH	<i>Senecio glomeratus</i>	Annual Fireweed
MH	<i>Rumex brownii</i>	Slender Dock
SH	<i>Dichondra repens</i>	Kidney-weed
SH	<i>Crassula helmsii</i>	Swamp Crassula
SH	<i>Selliera radicans</i>	Shiny Swamp-mat
SH	<i>Hydrocotyle sibthorpioides</i>	Shining Pennywort
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
LTG	<i>Gahnia filum</i>	Chaffy Saw-sedge
LTG	<i>Poa labillardierei</i>	Common Tussock-grass
LTG	<i>Juncus kraussii</i> ssp. <i>australiensis</i>	Sea Rush
LNG	<i>Phragmites australis</i>	Common Reed
MTG	<i>Lachnagrostis filiformis</i>	Common Blown-grass
MTG	<i>Austrodanthonia penicillata</i>	Slender Wallaby-grass
MTG	<i>Dianella revoluta</i> s.l.	Black-anther Flax-lily
MTG	<i>Bulbine bulbosa</i>	Bulbine Lily
MNG	<i>Triglochin striatum</i>	Streaked Arrowgrass
MNG	<i>Schoenus nitens</i>	Shiny Bog-sedge
MNG	<i>Distichlis distichophylla</i>	Australian Salt-grass
EP	<i>Muellerina eucalyptoides</i>	Creeping Mistletoe
SC	<i>Cassytha melantha</i>	Coarse Dodder-laurel
SC	<i>Calystegia sepium</i>	Large Bindweed

# EVC 56: Floodplain Riparian Woodland - Victorian Volcanic Plain bioregion

## Recruitment:

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

## Organic Litter:

40 % cover

## Logs:

30 m/0.1 ha.

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MS	<i>Rosa rubiginosa</i>	Sweet Briar	high	high
LH	<i>Rumex conglomeratus</i>	Clustered Dock	high	high
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
LH	<i>Rumex crispus</i>	Curled Dock	high	high
LH	<i>Helminthotheca echioides</i>	Ox-tongue	high	low
LH	<i>Aster subulatus</i>	Aster-weed	high	low
LH	<i>Cirsium vulgare</i>	Spear Thistle	high	high
LH	<i>Sonchus asper s.l.</i>	Rough Sow-thistle	high	low
LH	<i>Plantago lanceolata</i>	Ribwort	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Plantago major</i>	Greater Plantain	high	low
MH	<i>Brassica fruticulosa</i>	Twiggy Turnip	high	high
MH	<i>Atriplex prostrata</i>	Hastate Orache	high	high
LTG	<i>Phalaris aquatica</i>	Toowoomba Canary-grass	high	high
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MTG	<i>Cyperus eragrostis</i>	Drain Flat-sedge	high	high
MTG	<i>Bromus catharticus</i>	Prairie Grass	high	low
MTG	<i>Lolium perenne</i>	Perennial Rye-grass	high	high
MNG	<i>Paspalum distichum</i>	Water Couch	high	high

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 61: Box Ironbark Forest

#### Description:

Occurs in low rainfall areas (<550 mm per annum) on gently undulating rises, low hills and peneplains on infertile, often stony soils derived from a range of geologies. The open overstorey consists of a variety of eucalypts to 20 m tall, often including one of the Ironbark species. The mid storey often forms a dense to open small tree or shrub layer over an open ground layer ranging from a sparse to well-developed suite of herbs and grasses.

#### 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 macrorhyncha</i>	Red Stringybark
	<i>Eucalyptus goniacalyx</i> s.l.	Bundy
	<i>Eucalyptus leucoxydon</i>	Yellow Gum
	<i>Eucalyptus goniacalyx</i> s.s.	Bundy

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Medium Shrub	5	20%	MS
Small Shrub	2	5%	SS
Large Herb	2	1%	LH
Medium Herb	8	20%	MH
Small or Prostrate Herb	2	5%	SH
Large Tufted Graminoid	2	5%	LTG
Large Non-tufted Graminoid	1	1%	LNG
Medium to Small Tufted Graminoid	8	15%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Scrambler or Climber*	1	1%	SC
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C

\* Largely seasonal life form

**Total understorey projective foliage cover** **90%**



# EVC 61: Box Ironbark Forest - Victorian Volcanic Plain bioregion

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
MS	<i>Cassinia arcuata</i>	Drooping Cassinia
MS	<i>Brachyloma daphnoides</i>	Daphne Heath
SS	<i>Hovea heterophylla</i>	Common Hovea
SS	<i>Dillwynia sericea s.l.</i>	Showy Parrot-pea
LH	<i>Senecio quadridentatus</i>	Cotton Fireweed
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Crassula decumbens var. decumbens</i>	Spreading Crassula
MH	<i>Drosera peltata ssp. auriculata</i>	Tall Sundew
SH	<i>Siloxerus multiflorus</i>	Small Wrinklewort
SH	<i>Hyalosperma demissum</i>	Moss Sunray
SH	<i>Drosera whittakeri ssp. aberrans</i>	Scented Sundew
SH	<i>Drosera glanduligera</i>	Scarlet Sundew
LTG	<i>Xanthorrhoea minor ssp. lutea</i>	Small Grass-tree
LNG	<i>Gahnia radula</i>	Thatch Saw-sedge
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
MTG	<i>Joycea pallida</i>	Silvertop Wallaby-grass
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MTG	<i>Austrodanthonia setacea</i>	Bristly Wallaby-grass
EP	<i>Amyema miquelii</i>	Box Mistletoe
SC	<i>Thysanotus patersonii</i>	Twining Fringe-lily
SC	<i>Drosera macrantha</i>	Climbing Sundew

## Recruitment:

Continuous

## Organic Litter:

20 % 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
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MTG	<i>Briza maxima</i>	Large Quaking-grass	high	low
MTG	<i>Aira elegantissima</i>	Delicate Hair-grass	high	low

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 64: Rocky Chenopod Woodland

#### Description:

Low open (mallee) woodland to 8 m tall with an understorey dominated by chenopod (saltbush) species, occasional grasses and seasonal herbs. Occurs on laterised clays and duplex soils that tend to have a high salt content and are largely impervious to water.

#### Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	40 cm	10 / ha

#### Tree Canopy Cover:

%cover	Character Species	Common Name
10%	<i>Eucalyptus microcarpa</i>	Grey Box
	<i>Eucalyptus leucoxylon</i>	Yellow Gum
	<i>Eucalyptus behriana</i>	Bull Mallee

#### Understorey:

Life form	#Spp	%Cover	LF code
Understorey Tree or Large Shrub	3	5%	T
Medium Shrub	6	25%	MS
Small Shrub	2	5%	SS
Medium Herb	3	10%	MH
Small Herb	1	1%	SH
Medium to Small Tufted Graminoid	3	5%	MTG
Scrambler or Climber	1	1%	SC
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	20%	S/C
<b>Total understorey projective foliage cover</b>		<b>75%</b>	

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia implexa</i>	Lightwood
T	<i>Exocarpos cupressiformis</i>	Cherry Ballart
T	<i>Allocasuarina verticillata</i>	Drooping Sheoak
T	<i>Melaleuca lanceolata</i> ssp. <i>lanceolata</i>	Moonah
MS	<i>Rhagodia parabolica</i>	Fragrant Saltbush
MS	<i>Dodonaea viscosa</i> ssp. <i>cuneata</i>	Wedge-leaf Hop-bush
MS	<i>Acacia acinacea</i> s.l.	Gold-dust Wattle
SS	<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>	Ruby Saltbush
MH	<i>Einadia hastata</i>	Saloop
MH	<i>Einadia nutans</i> ssp. <i>nutans</i>	Nodding Saltbush
MH	<i>Carpobrotus modestus</i>	Inland Pigface
SH	<i>Dichondra repens</i>	Kidneyweed
MTG	<i>Austrodanthonia setacea</i>	Bristly Wallaby-grass
MTG	<i>Austrodanthonia caespitosa</i>	Common Wallaby-grass
MTG	<i>Austrostipa densiflora</i>	Dense Spear-grass
SC	<i>Cassytha melantha</i>	Coarse Dodder-laurel
SC	<i>Clematis microphylla</i>	Small-leaved Clematis

# EVC 64: Rocky Chenopod Woodland - Victorian Volcanic Plain bioregion

**Recruitment:**

Continuous

**Organic Litter:**

10 % 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	low	high
SS	<i>Galenia pubescens</i> var. <i>pubescens</i>	Galenia	high	high
LH	<i>Phytolacca octandra</i>	Red-ink Weed	high	high
MTG	<i>Ehrharta longiflora</i>	Annual Veldt-grass	high	low

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 67: Alluvial Terraces Herb-rich Woodland

#### Description:

Open woodland to 15 m tall on broad alluvial plains and along ephemeral drainage lines. Soils are generally poorly drained duplex soils with sandy loam overlying a heavier clay subsoil. Understorey consists of few, if any shrubs with the striking feature of this EVC being the high species-richness of the ground-layer and the low biomass of this cover, particularly in summer.

#### 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 camaldulensis</i>	River Red-gum
	<i>Eucalyptus melliodora</i>	Yellow Box

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	1	10%	T
Medium Shrub	5	15%	MS
Small Shrub	4	5%	SS
Prostrate Shrub	2	5%	PS
Large Herb	2	5%	LH
Medium Herb	15	15%	MH
Small or Prostrate Herb*	8	10%	SH
Large Tufted Graminoid	2	5%	LTG
Medium to Small Tufted Graminoid	10	15%	MTG
Medium to Tiny Non-tufted Graminoid	4	10%	MNG
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C

\* Largely seasonal life form

#### Recruitment:

Continuous

#### Organic Litter:

10 % cover

#### Logs:

15 m/0.1 ha.

# EVC 67: Alluvial Terraces Herb-rich Woodland - Victorian Volcanic Plain bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia mearnsii</i>	Black Wattle
MS	<i>Banksia marginata</i>	Silver Banksia
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Brachyloma daphnoides</i>	Daphne Heath
MS	<i>Leptospermum scoparium</i>	Manuka
SS	<i>Hibbertia fasciculata</i> var. <i>prostrata</i>	Bundled Guinea-flower
SS	<i>Hibbertia riparia</i>	Erect Guinea-flower
SS	<i>Hibbertia stricta</i> s.l.	Upright Guinea-flower
PS	<i>Astroloma humifusum</i>	Cranberry Heath
PS	<i>Acrotriche serrulata</i>	Honey-pots
LH	<i>Wahlenbergia stricta</i>	Tall Bluebell
MH	<i>Hypericum gramineum</i>	Small St John's Wort
MH	<i>Drosera peltata</i> ssp. <i>peltata</i>	Pale Sundew
MH	<i>Poranthera microphylla</i>	Small Poranthera
SH	<i>Viola cleistogamoides</i>	Hidden Violet
SH	<i>Siloxerus multiflorus</i>	Small Wrinklewort
SH	<i>Drosera pygmaea</i>	Tiny Sundew
SH	<i>Solenogyne dominii</i>	Smooth Solenogyne
LTG	<i>Deyeuxia quadriseta</i>	Reed Bent-grass
LTG	<i>Austrostipa mollis</i>	Supple Spear-grass
MTG	<i>Luzula meridionalis</i>	Common Woodrush
MTG	<i>Schoenus apogon</i>	Common Bog-sedge
MTG	<i>Juncus subsecundus</i>	Finger Rush
MTG	<i>Austrodanthonia setacea</i>	Bristly Wallaby-grass
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
MNG	<i>Triglochin nanum</i>	Dwarf Arrowgrass
TTG	<i>Centrolepis strigosa</i> ssp. <i>strigosa</i>	Hairy Centrolepis
TTG	<i>Centrolepis aristata</i>	Pointed Centrolepis
TTG	<i>Aphelia pumilio</i>	Dwarf Aphelia
SC	<i>Thysanotus patersonii</i>	Twining Fringe-lily

## 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>Hypochoeris glabra</i>	Smooth Cat's-ear	high	low
MH	<i>Cicendia filiformis</i>	Slender Cicendia	high	low
MH	<i>Anagallis arvensis</i>	Pimpernel	high	low
MH	<i>Centaureum erythraea</i>	Common Centaury	high	low
MH	<i>Moenchia erecta</i>	Erect Chickweed	high	low
MH	<i>Parentucellia latifolia</i>	Red Bartsia	high	low
MH	<i>Leontodon taraxacoides</i> ssp. <i>taraxacoides</i>	Hairy Hawkbit	high	low
MTG	<i>Briza minor</i>	Lesser Quaking-grass	high	low
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MNG	<i>Juncus capitatus</i>	Capitate Rush	high	low
MNG	<i>Aira elegantissima</i>	Delicate Hair-grass	high	low
TTG	<i>Cyperus tenellus</i>	Tiny Flat-sedge	high	low
TTG	<i>Isolepis hystrix</i>	Awned Club-sedge	high	low

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 68: Creekline Grassy Woodland

#### Description:

Eucalypt-dominated woodland to 15 m tall with occasional scattered shrub layer over a mostly grassy/sedgy to herbaceous ground-layer. Occurs on low-gradient ephemeral to intermittent drainage lines, typically on fertile colluvial/alluvial soils, on a wide range of suitably fertile geological substrates. These minor drainage lines can include a range of graminoid and herbaceous species tolerant of waterlogged soils, and are presumed to have sometimes resembled a linear wetland or system of interconnected small ponds.

#### Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	80 cm	15 / ha

#### Tree Canopy Cover:

%cover	Character Species	Common Name
15%	<i>Eucalyptus camaldulensis</i>	River Red-gum

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	2	10%	T
Medium Shrub	5	10%	MS
Small Shrub	1	1%	SS
Large Herb	2	5%	LH
Medium Herb	6	10%	MH
Small or Prostrate Herb	3	5%	SH
Large Tufted Graminoid	2	10%	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
Scrambler or Climber	3	10%	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
T	<i>Acacia retinodes</i>	Wirilda
MS	<i>Hymenanthera dentata s.l.</i>	Tree Violet
SS	<i>Rubus parvifolius</i>	Small-leaf Bramble
SS	<i>Enchylaena tomentosa var. tomentosa</i>	Ruby Saltbush
MH	<i>Oxalis perennans</i>	Grassland Wood-sorrel
SH	<i>Azolla filiculoides</i>	Pacific Azolla
SH	<i>Lemna disperma</i>	Common Duckweed
LTG	<i>Austrostipa bigeniculata</i>	Kneed Spear-grass
LTG	<i>Poa labillardierei</i>	Common Tussock-garss
LNG	<i>Phragmites australis</i>	Common Reed
MTG	<i>Austrodanthonia racemosa var. racemosa</i>	Stiped Wallaby-grass
MTG	<i>Austrodanthonia caespitosa</i>	Common Wallaby-grass
MNG	<i>Microlaena stipoides var. stipoides</i>	Weeping Grass
SC	<i>Glycine clandestina</i>	Twining Glycine

# EVC 68: Creekline Grassy Woodland - Victorian Volcanic Plain bioregion

## Recruitment:

Continuous

## Organic Litter:

40 % cover

## Logs:

20 m/0.1 ha.

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
T	<i>Salix fragilis</i>	Crack Willow	high	high
MS	<i>Lycium ferocissimum</i>	African Box-thorn	high	high
MS	<i>Genista monspessulana</i>	Montpellier Broom	high	high
MS	<i>Rosa rubiginosa</i>	Sweet Briar	high	high
MS	<i>Rubus sp. aff. armeniacus</i>	Blackberry	high	high
LH	<i>Plantago lanceolata</i>	Ribwort	high	low
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
LH	<i>Hirschfeldia incana</i>	Buchan Weed	high	high
LH	<i>Verbena bonariensis s.l.</i>	Purple-top Verbena	high	high
LH	<i>Rumex crispus</i>	Curled Dock	high	high
LH	<i>Rumex conglomeratus</i>	Clustered Dock	high	high
LH	<i>Conium maculatum</i>	Hemlock	high	high
LH	<i>Helminthotheca echioides</i>	Ox-tongue	high	low
LH	<i>Aster subulatus</i>	Aster-weed	high	low
LH	<i>Sonchus asper s.l.</i>	Rough Sow-thistle	high	low
LH	<i>Solanum nigrum sensu Willis (1972)</i>	Black Nightshade	high	high
MH	<i>Brassica fruticulosa</i>	Twiggy Turnip	high	high
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Foeniculum vulgare</i>	Fennel	high	high
SH	<i>Modiola caroliniana</i>	Red-flower Mallow	high	low
LTG	<i>Phalaris aquatica</i>	Toowoomba Canary-grass	high	high
LTG	<i>Piptatherum miliaceum</i>	Rice Millet	high	high
MTG	<i>Ehrharta erecta var. erecta</i>	Panic Veldt-grass	high	high
MTG	<i>Paspalum dilatatum</i>	Paspalum	high	high
MTG	<i>Bromus catharticus</i>	Prairie Grass	high	low
MTG	<i>Romulea rosea</i>	Onion Grass	high	low
MTG	<i>Bromus diandrus</i>	Great Brome	high	low
MTG	<i>Briza maxima</i>	Large Quaking-grass	high	low
MTG	<i>Agrostis capillaris s.l.</i>	Brown-top Bent	high	high
MNG	<i>Dactylis glomerata</i>	Cocksfoot	high	high
MNG	<i>Paspalum distichum</i>	Water Couch	high	high
SC	<i>Tradescantia fluminensis</i>	Wandering Jew	high	high

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 71: Hills Herb-rich Woodland

#### Description:

A dry, open eucalypt woodland to 15 m tall often with a sparse shrub layer. The understorey is dominated by a carpet of herbs and grasses. Soils are generally shallow but fertile, and outcropping rock is not uncommon. This seasonally dry environment is favourable for annual herbs, with the fertile nature of the various geologies also supporting perennial herbs. Landform can vary from relatively flat ground to ridge tops on sedimentary sandstones (along seams of mineral-rich sandstone) to undulating, rounded, granite hill landforms.

#### 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 microcarpa</i>	Grey Box
	<i>Eucalyptus melliodora</i>	Yellow Box
	<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	4	10%	MS
Small Shrub	2	1%	SS
Prostrate Shrub	1	1%	PS
Large Herb	1	5%	LH
Medium Herb	4	5%	MH
Large Tufted Graminoid	1	1%	LTG
Medium to Small Tufted Graminoid	8	25%	MTG
Medium to Tiny Non-tufted Graminoid	3	5%	MNG
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C
<b>Total understorey projective foliage cover</b>		<b>75%</b>	

## EVC 71: Hills Herb-rich Woodland – Victorian Volcanic Plain bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Allocasuarina verticillata</i>	Drooping Sheoak
MS	<i>Acacia pycnantha</i>	Golden Wattle
MS	<i>Acacia paradoxa</i>	Hedge Wattle
MS	<i>Ozothamnus obcordatus</i>	Grey Everlasting
PS	<i>Bossiaea prostrata</i>	Creeping Bossiaea
MH	<i>Hypericum gramineum</i>	Small St John's Wort
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MTG	<i>Themeda triandra</i>	Kangaroo Grass
MTG	<i>Tricoryne elatior</i>	Yellow Rush-lily
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass

### Recruitment:

Continuous

### Organic Litter:

20 % cover

### Logs:

15 m/0.1 ha.

Published by the Victorian Government Department of Sustainability and Environment April 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 72: Granitic Hills Woodland

#### Description:

Mainly restricted to granite rocky outcrops and structurally consists of a low woodland to 10 m high with the dominant trees often being stunted.

#### 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 macrorhyncha</i> <i>Eucalyptus goniocalyx</i> s.l.	Red Stringybark Bundy

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	2	10%	T
Medium Shrub	5	5%	MS
Large Herb	4	10%	LH
Medium Herb	9	15%	MH
Small or Prostrate Herb	2	5%	SH
Medium to Small Tufted Graminoid	11	20%	MTG
Medium to Tiny Non-tufted Graminoid	2	1%	MNG
Ground Fern	2	5%	GF
Scrambler or Climber	2	1%	SC
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C
<b>Total understorey projective foliage cover</b>		<b>85%</b>	



# EVC 72: Granitic Hills Woodland – Victorian Volcanic Plain bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Exocarpos cupressiformis</i>	Cherry Ballart
T	<i>Acacia mearnsii</i>	Black Wattle
MS	<i>Brachyloma daphnoides</i>	Daphne Heath
MS	<i>Grevillea alpina</i>	Cat's Claw Grevillea
MS	<i>Indigofera australis</i>	Austral Indigo
MS	<i>Acacia verniciflua</i>	Varnish Wattle
SS	<i>Dillwynia sericea</i> s.l.	Showy Parrot-pea
PS	<i>Acrotriche serrulata</i>	Honey-pots
LH	<i>Stypandra glauca</i>	Nodding Blue-lily
LH	<i>Wahlenbergia stricta</i>	Tall Bluebell
LH	<i>Senecio quadridentatus</i>	Cotton Fireweed
LH	<i>Senecio hispidulus</i>	Rough Fireweed
MH	<i>Gonocarpus elatus</i>	Tall Raspswort
MH	<i>Senecio hispidulus</i> var. <i>dissectus</i>	Rough Fireweed
MH	<i>Isotoma axillaris</i>	Rock Isotome
MH	<i>Geranium solanderi</i> s.l.	Austral Cranesbill
SH	<i>Hydrocotyle laxiflora</i>	Stinking Pennywort
SH	<i>Crassula sieberiana</i>	Sieber Crassula
SH	<i>Cymbonotus preissianus</i>	Austral Bear's-ear
MTG	<i>Joycea pallida</i>	Silvertop Wallaby-grass
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MTG	<i>Luzula meridionalis</i> var. <i>flaccida</i>	Common Woodrush
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
MNG	<i>Hemarthria uncinata</i> var. <i>uncinata</i>	Mat Grass
TTG	<i>Centrolepis strigosa</i> ssp. <i>strigosa</i>	Hairy Centrolepis
GF	<i>Cheilanthes austrotenuifolia</i>	Green Rock-fern
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Cheilanthes sieberi</i> ssp. <i>sieberi</i>	Narrow Rock-fern
EP	<i>Amyema pendula</i>	Drooping Mistletoe
SC	<i>Hardenbergia violacea</i>	Purple Coral-pea
SC	<i>Comesperma volubile</i>	Love Creeper
SC	<i>Thysanotus patersonii</i>	Twining Fringe-lily

## Recruitment:

Continuous

## Organic Litter:

20 % cover

## Logs:

15 m/0.1 ha.

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LH	<i>Carduus pycnocephalus</i>	Slender Thistle	high	high
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
MH	<i>Trifolium arvense</i> var. <i>arvense</i>	Hare's-foot Clover	high	low
MTG	<i>Briza maxima</i>	Large Quaking-grass	high	low
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MTG	<i>Briza minor</i>	Lesser Quaking-grass	high	low
MTG	<i>Bromus diandrus</i>	Great Brome	high	low
MNG	<i>Aira</i> spp.	Hair Grass	high	low
MNG	<i>Aira elegantissima</i>	Delicate Hair-grass	high	low

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 83: Swampy Riparian Woodland

#### Description:

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
20%	<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	15%	MH
Small or Prostrate Herb	4	5%	SH
Large Tufted Graminoid	5	20%	LTG
Large Non-tufted Graminoid	1	1%	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 involucreatus</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 - Victorian Volcanic 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	high
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

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 104: Lignum Swamp

#### Description:

Shrubland to 3 m tall or open woodland to 15 m tall, with an understorey that can be rich in herbaceous species. Occurs on inundation-prone heavy grey soils in depressions or floodways in low rainfall areas.

+ woodland only components (ignore when assessing treeless areas and standardise final score as appropriate)

#### Large trees<sup>+</sup>:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	80 cm	5

#### Tree Canopy Cover<sup>+</sup>:

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

#### Life forms:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree <sup>+</sup>		5%	IT
Medium Shrub	1	20%	MS
Large Herb	2	5%	LH
Medium Herb	3	15%	MH
Small or Prostrate Herb	3	10%	SH
Large Tufted Graminoid	1	5%	LTG
Medium to Small Tufted Graminoid	6	20%	MTG
Medium to Tiny Non-tufted Graminoid	3	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>Muehlenbeckia florulenta</i>	Lignum
LH	<i>Brachyscome basaltica</i> var. <i>gracilis</i>	Woodland Swamp-daisy
LH	<i>Rumex brownii</i>	Slender Dock
MH	<i>Marsilea drummondii</i>	Common Nardoo
MH	<i>Alternanthera denticulata</i> s.l.	Lesser Joyweed
MH	<i>Myriophyllum muelleri</i>	Hooded Water-milfoil
SH	<i>Eryngium vesiculosum</i>	Prickfoot
SH	<i>Lobelia pratioides</i>	Poison Lobelia
SH	<i>Lobelia concolor</i>	Poison Pratia
LTG	<i>Amphibromus nervosus</i>	Common Swamp Wallaby-grass
MTG	<i>Lachnagrostis filiformis</i>	Common Blown-grass
MTG	<i>Juncus subsecundus</i>	Finger 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 10 years.

#### Organic Litter:

10 % cover

#### Logs<sup>+</sup>:

5 m/0.1 ha.

# EVC 104: Lignum Swamp - Victorian Volcanic 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>Helminthotheca echinoides</i>	Ox-tongue	high	high
LH	<i>Cynara cardunculus</i>	Spanish Artichoke	high	high
LH	<i>Sonchus asper</i> s.l.	Rough Sow-thistle	high	low
LH	<i>Aster subulatus</i>	Aster-weed	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
MTG	<i>Nassella trichotoma</i>	Serrated Tussock	high	high
MTG	<i>Lolium rigidum</i>	Wimmera Rye-grass	high	low
MTG	<i>Bromus hordeaceus</i> ssp. <i>hordeaceus</i>	Soft Brome	high	low
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low

Published by the Victorian Government Department of Sustainability and Environment October 2005

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic 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 - Victorian Volcanic 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</i> ssp. <i>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

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 128: Grassy Forest

#### Description:

Low growing forest to 20 m tall with an understorey of small and medium shrubs and a rich diversity of herbs. Large shrubs and understorey trees may also be conspicuous. Often grows in areas transitional between drier box stringybark forests and taller herb-rich forests typical of more favourable environments.

#### 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 obliqua</i>	Messmate Stringybark
	<i>Eucalyptus rubida</i>	Candlebark
	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	2	10%	T
Medium Shrub	3	10%	MS
Small Shrub	4	5%	SS
Prostrate Shrub	2	1%	PS
Large Herb	3	5%	LH
Medium Herb	10	15%	MH
Large Tufted Graminoid	1	5%	LTG
Medium to Small Tufted Graminoid	9	30%	MTG
Scrambler or Climber	2	1%	SC
Bryophytes/Lichens	na	10%	BL
<b>Total understorey projective foliage cover</b>		<b>80%</b>	

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Epacris impressa</i>	Common Heath
MS	<i>Daviesia leptophylla</i>	Narrow-leaf Bitter-pea
MS	<i>Pultenaea gunnii</i>	Golden Bush-pea
SS	<i>Hovea heterophylla</i>	Common Hovea
SS	<i>Dillwynia cinerascens</i> s.l.	Grey Parrot-pea
SS	<i>Leucopogon virgatus</i>	Common Beard-heath
SS	<i>Tetralix ciliata</i>	Pink-bells
PS	<i>Acrotriche serrulata</i>	Honey-pots
PS	<i>Platylobium formosum</i>	Handsome Flat-pea
LH	<i>Senecio tenuiflorus</i>	Slender Fireweed
LH	<i>Senecio glomeratus</i>	Annual Fireweed
LH	<i>Wahlenbergia gymnoclada</i>	Naked Bluebell
MH	<i>Helichrysum scorpioides</i>	Button Everlasting
MH	<i>Poranthera microphylla</i>	Small Poranthera
MH	<i>Viola hederacea</i> sensu Willis (1972)	Ivy-leaf Violet
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
SH	<i>Oxypetalum varia</i>	Variable Stinkweed
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MTG	<i>Dichelachne sciurea</i> spp. agg.	Short-hair Plume-grass
MTG	<i>Stylidium graminifolium</i> s.l.	Grass Trigger-plant
GF	<i>Pteridium esculentum</i>	Austral Bracken
SC	<i>Hardenbergia violacea</i>	Purple Coral-pea

# EVC 128: Grassy Forest - Victorian Volcanic Plain bioregion

**Recruitment:**

Continuous

**Organic Litter:**

20 % cover

**Logs:**

20 m/0.1 ha.

**Weediness:**

LF Code	Typical Weed Species	Common Name	Invasive	Impact
T	<i>Pinus radiata</i>	Radiata Pine	low	high
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MTG	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	high	high
MTG	<i>Agrostis capillaris s.l.</i>	Brown-top Bent	high	high

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 132\_61: *Heavier-soils* Plains Grassland

#### Description:

Treeless vegetation mostly less than 1 m tall dominated by largely graminoid and herb life forms. Occupies fertile cracking basalt soils prone to seasonal waterlogging in areas receiving at least 500 mm annual rainfall.

#### Life Forms:

Life form	#Spp	%Cover	LF code
Large Herb	2	5%	LH
Medium Herb	12	20%	MH
Small or Prostrate Herb	4	5%	SH
Large Tufted Graminoid	1	5%	LTG
Medium to Small Tufted Graminoid	13	40%	MTG
Medium to Tiny Non-tufted Graminoid	4	5%	MNG
Bryophytes/Lichens and Soil Crust*	na	20%	BL

\* Note: treat as one life form in this EVC

LF Code	Species typical of at least part of EVC range	Common Name
SS	<i>Pimelea humilis</i>	Common Rice-flower
LH	<i>Rumex dumosus</i>	Wiry Dock
MH	<i>Calocephalus citreus</i>	Lemon Beauty-heads
MH	<i>Acaena echinata</i>	Sheep's Burr
MH	<i>Leptorhynchus squamatus</i>	Scaly Buttons
MH	<i>Eryngium ovium</i>	Blue Devil
SH	<i>Solenogyne dominii</i>	Smooth Solenogyne
SH	<i>Lobelia pratioides</i>	Poison Lobelia
LTG	<i>Austrostipa bigeniculata</i>	Kneed Spear-grass
LTG	<i>Dichelachne crinita</i>	Long-hair Plume-grass
MTG	<i>Themeda triandra</i>	Kangaroo Grass
MTG	<i>Austrodanthonia caespitosa</i>	Common Wallaby-grass
MTG	<i>Elymus scaber</i> var. <i>scaber</i>	Common Wheat-grass
MTG	<i>Schoenus apogon</i>	Common Bog-sedge
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
MNG	<i>Thelymitra pauciflora</i> s.l.	Slender Sun-orchid
MNG	<i>Microtis unifolia</i>	Common Onion-orchid
SC	<i>Convolvulus erubescens</i>	Pink Bindweed

#### Recruitment:

Episodic/Fire or Grazing. Desirable period between disturbances is 5 years.

#### Organic Litter:

10% cover



# EVC 132\_61: *Heavier-soils* Plains Grassland - Victorian Volcanic Plain bioregion

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LH	<i>Plantago lanceolata</i>	Ribwort	high	low
LH	<i>Cirsium vulgare</i>	Spear Thistle	high	high
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Leontodon taraxacoides</i> ssp. <i>taraxacoides</i>	Hairy Hawkbit	high	low
MH	<i>Trifolium subterraneum</i>	Subterranean Clover	high	low
MH	<i>Plantago coronopus</i>	Buck's-horn Plantain	high	low
MH	<i>Trifolium striatum</i>	Knotted Clover	high	low
MH	<i>Trifolium dubium</i>	Suckling Clover	high	low
LTG	<i>Phalaris aquatica</i>	Toowoomba Canary-grass	high	high
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MTG	<i>Romulea rosea</i>	Onion Grass	high	low
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MTG	<i>Briza minor</i>	Lesser Quaking-grass	high	low
MTG	<i>Bromus hordeaceus</i> ssp. <i>hordeaceus</i>	Soft Brome	high	low
MTG	<i>Briza maxima</i>	Large Quaking-grass	high	low
MTG	<i>Lolium rigidum</i>	Wimmera Rye-grass	high	low
MTG	<i>Lolium perenne</i>	Perennial Rye-grass	high	low
MTG	<i>Nassella neesiana</i>	Chilean Needle-grass	high	high
MNG	<i>Cynosurus echinatus</i>	Rough Dog's-tail	high	low
MNG	<i>Juncus capitatus</i>	Capitate Rush	high	low

Published by the Victorian Government Department of Sustainability and Environment December 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 132\_63: *Low-rainfall* Plains Grassland

#### Description:

Treeless vegetation mostly < 1 m tall dominated by largely graminoid and herb life forms. Occupies cracking basalt soils prone to seasonal waterlogging in areas receiving < 500 mm annual rainfall.

#### Life forms:

Life form	#Spp	%Cover	LF code
Small Shrub*	1	5%	SS
Prostrate Shrub	1	5%	PS
Large Herb*	2	5%	LH
Medium Herb	8	20%	MH
Small or Prostrate Herb*	3	10%	SH
Large Tufted Graminoid	1	5%	LTG
Medium to Small Tufted Graminoid	10	30%	MTG
Medium to Tiny Non-tufted Graminoid*	2	5%	MNG
Bryophytes/Lichens and Soil Crust**	na	20%	BL

\* Largely seasonal life form

\*\* Note: treat as one life form in this EVC

LF Code	Species typical of at least part of EVC range	Common Name
SS	<i>Pimelea curviflora</i> s.s.	Curved Rice-flower
PS	<i>Atriplex semibaccata</i>	Berry Saltbush
LH	<i>Ptilotus macrocephalus</i>	Feather-heads
MH	<i>Acaena echinata</i>	Sheep's Burr
MH	<i>Plantago gaudichaudii</i>	Narrow Plantain
MH	<i>Maireana enchylaenoides</i>	Wingless Bluebush
MH	<i>Calocephalus citreus</i>	Lemon Beauty-heads
SH	<i>Solenogyne dominii</i>	Smooth Solenogyne
SH	<i>Oxalis perennans</i>	Grassland Wood-sorrel
SH	<i>Chamaesyce drummondii</i>	Flat Spurge
SH	<i>Goodenia pinnatifida</i>	Cut-leaf Goodenia
LTG	<i>Austrostipa bigeniculata</i>	Kneed Spear-grass
MTG	<i>Austrostipa scabra</i>	Rough Spear-grass
MTG	<i>Austrostipa nodosa</i>	Knotty Spear-grass
MTG	<i>Whalleya proluta</i>	Rigid Panic
MTG	<i>Austrodanthonia duttoniana</i>	Brown-back Wallaby-grass
TTG	<i>Centrolepis strigosa</i> ssp. <i>strigosa</i>	Hairy Centrolepis
TTG	<i>Centrolepis aristata</i>	Pointed Centrolepis
SC	<i>Convolvulus erubescens</i> spp. agg.	Pink Bindweed

#### Recruitment:

Episodic/Fire or Grazing. Desirable period between disturbances is 5 years.

#### Organic Litter:

10% cover

# EVC 132\_63: *Low-rainfall* Plains Grassland - Victorian Volcanic Plain bioregion

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LH	<i>Plantago lanceolata</i>	Ribwort	high	low
LH	<i>Cirsium vulgare</i>	Spear Thistle	high	high
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Leontodon taraxacoides</i> ssp. <i>taraxacoides</i>	Hairy Hawkbit	high	low
MH	<i>Trifolium subterraneum</i>	Subterranean Clover	high	low
MH	<i>Plantago coronopus</i>	Buck's-horn Plantain	high	low
MH	<i>Trifolium striatum</i>	Knotted Clover	high	low
MH	<i>Trifolium dubium</i>	Suckling Clover	high	low
MTG	<i>Romulea rosea</i>	Onion Grass	high	low
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MTG	<i>Briza minor</i>	Lesser Quaking-grass	high	low
MTG	<i>Bromus hordeaceus</i> ssp. <i>hordeaceus</i>	Soft Brome	high	low
MTG	<i>Briza maxima</i>	Large Quaking-grass	high	low
MTG	<i>Lolium rigidum</i>	Wimmera Rye-grass	high	low
MTG	<i>Lolium perenne</i>	Perennial Rye-grass	high	low
MTG	<i>Nassella neesiana</i>	Chilean Needle-grass	high	high
MNG	<i>Cynosurus echinatus</i>	Rough Dog's-tail	high	low
MNG	<i>Juncus capitatus</i>	Capitate Rush	high	low

Published by the Victorian Government Department of Sustainability and Environment December 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 134: Sand Forest

#### Description:

Eucalypt forest to 20 m tall occurring on deep, low fertility sand deposits subject to high fire frequency. The understorey is visually dominated by Austral Bracken and the overall diversity is low.

#### Large trees:

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

#### Tree Canopy Cover:

%cover	Character Species	Common Name
30%	<i>Eucalyptus viminalis</i> ssp. <i>cygnetensis</i>	Rough-barked Manna-gum

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	1	5%	T
Medium Shrub	3	5%	MS
Small Shrub	1	5%	SS
Prostrate Shrub	2	5%	PS
Medium Herb	2	5%	MH
Large Tufted Graminoid	1	1%	LTG
Medium to Small Tufted Graminoid	7	15%	MTG
Medium to Tiny Non-tufted Graminoid	2	1%	MNG
Ground Fern	1	50%	GF
Bryophytes/Lichens	na	10%	BL

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia mearnsii</i>	Black Wattle
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Brachyloma daphnoides</i>	Daphne Heath
MS	<i>Acacia paradoxa</i>	Hedge Wattle
SS	<i>Astroloma conostephioides</i>	Flame Heath
PS	<i>Bossiaea prostrata</i>	Creeping Bossiaea
PS	<i>Astroloma humifusum</i>	Cranberry Heath
MH	<i>Goodenia geniculata</i>	Bent Goodenia
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
LTG	<i>Xanthorrhoea australis</i>	Austral Grass-tree
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MTG	<i>Austrodanthonia geniculata</i>	Knead Wallaby-grass
MTG	<i>Lomandra nana</i>	Dwarf Mat-rush
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
GF	<i>Pteridium esculentum</i>	Austral Bracken

#### Recruitment:

Continuous

#### Organic Litter:

40 % cover

#### Logs:

15 m/0.1 ha.

# EVC 134: Sand Forest – Victorian Volcanic Plain bioregion

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Hypochoeris glabra</i>	Smooth Cat's-ear	high	low
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MNG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MNG	<i>Briza minor</i>	Lesser Quaking-grass	high	low
MNG	<i>Briza maxima</i>	Large Quaking-grass	high	low
MNG	<i>Aira elegantissima</i>	Delicate Hair-grass	high	low
MNG	<i>Holcus setosus</i>	Annual Fog	high	low
MNG	<i>Aira praecox</i>	Early Hair-grass	high	low

Published by the Victorian Government Department of Sustainability and Environment April 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 136: Sedge Wetland

#### Description:

Seasonal wetlands containing generally treeless vegetation dominated by sedges. May contain a fringe of shrubs and isolated shrubs may also be present throughout. Usually of low diversity in central areas but richer on verges and in some more ephemeral forms of the EVC. Frequently on soils of high organic content, in depressions with sandy terrain.

#### Life forms:

Life form	#Spp	%Cover	LF code
Large Herb	1	5%	LH
Small or Prostrate Herb	1	1%	SH
Large Tufted Graminoid	2	20%	LTG
Large Non-tufted Graminoid	1	20%	LNG
Bryophytes/Lichens	na	10%	BL
<b>Total understorey projective foliage cover</b>		<b>55%</b>	

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
LH	<i>Villarsia reniformis</i>	Running Marsh-flower
LH	<i>Epilobium billardierianum</i>	Variable Willow-herb
LTG	<i>Baloskian tetraphyllum</i> ssp. <i>tetraphyllum</i>	Tassel Cord-rush
LTG	<i>Triglochin procerum</i> s.l.	Water Ribbons
LTG	<i>Baumea articulata</i>	Jointed Twig-sedge
LNG	<i>Lepidosperma longitundinale</i>	Pithy Sword-sedge
LNG	<i>Baumea rubiginosa</i> s.l.	Soft Twig-rush

#### Recruitment:

Episodic/Flood. Desirable period between disturbances is 5 years

#### Organic Litter:

10 % cover

#### Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
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>Hypochoeris glabra</i>	Smooth Cat's-ear	high	low
MH	<i>Cotula coronopifolia</i>	Water Buttons	high	high
MTG	<i>Critesion hystrix</i>	Mediterranean Barley-grass	high	low
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MTG	<i>Romulea rosea</i>	Onion Grass	high	low
MTG	<i>Lolium perenne</i>	Perennial Rye-grass	high	high
MTG	<i>Briza minor</i>	Lesser Quaking-grass	high	low
MNG	<i>Holcus setosus</i>	Annual Fog	high	high
MNG	<i>Aira elegantissima</i>	Delicate Hair-grass	high	low
TTG	<i>Isolepis hystrix</i>	Awned Club-sedge	high	low
TTG	<i>Cyperus tenellus</i>	Tiny Flat-sedge	high	low

# EVC 136: Sedge Wetland – Victorian Volcanic Plain bioregion

Published by the Victorian Government Department of Sustainability and Environment December 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 140: Mangrove Shrubland

#### Description:

Shrubland to 2 m tall. Confined to protected low energy coastal environments where there is sufficient shelter from strong wave action and currents to allow the accumulation of fine sediments, generally on mud flats within the tidal zone.

#### Life Forms:

Life form	#Spp	%Cover	LF code
Medium Shrub	1	40%	MS
Medium to Tiny Non-tufted Graminoid	1	5%	MNG
<b>Total understorey projective foliage cover</b>		<b>25%</b>	

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Avicennia marina ssp. australasica</i>	White Mangrove
MNG	<i>Zostera muelleri</i>	Dwarf Grass-wrack

#### Recruitment:

Continuous

#### Weediness:

There are no consistent weeds in this EVC.

# EVC 140: Mangrove Shrubland – Victorian Volcanic Plain bioregion

Published by the Victorian Government Department of Sustainability and Environment April 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic 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	5	50%	MS
Small Shrub	3	5%	SS
Large Herb	2	5%	LH
Medium Herb	6	10%	MH
Small or Prostrate Herb	3	5%	SH
Large Tufted Graminoid	2	1%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	3	10%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Ground Fern	1	5%	GF
Scrambler or Climber	2	1%	SC
Bryophytes/Lichens	na	10%	BL

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Acacia longifolia</i> s.l.	Coast Wattle
MS	<i>Leucopogon parviflorus</i>	Coast Beard-heath
MS	<i>Rhagodia candolleana</i> ssp. <i>candolleana</i>	Seaberry Saltbush
MS	<i>Monotoca elliptica</i> s.l.	Tree Broom-heath
MH	<i>Gonocarpus teucrioides</i> s.l.	Germander Raspwort
SH	<i>Dichondra repens</i>	Kidney-weed
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
MTG	<i>Lepidosperma concavum</i>	Sandhill Sword-sedge
MNG	<i>Ficinia nodosa</i>	Knobby Club-sedge
GF	<i>Pteridium esculentum</i>	Austral Bracken

#### Recruitment:

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

#### Organic Litter:

40 % cover

#### Logs:

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

#### Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
MH	<i>Plantago coronopus</i>	Buck's-horn Plantain	high	high



# EVC 160: Coastal Dune Scrub - Victorian Volcanic Plain bioregion

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 161: Coastal Headland Scrub

#### Description:

Scrub or low shrubland to 2 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 along rocky sections of the coast.

#### Life forms:

Life form	#Spp	%Cover	LF code
Medium Shrub	7	50%	MS
Small Shrub	2	5%	SS
Large Herb	2	1%	LH
Medium Herb	4	5%	MH
Small or Prostrate Herb	2	5%	SH
Large Tufted Graminoid	1	1%	LTG
Medium to Small Tufted Graminoid	4	10%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Scrambler or Climber	2	5%	SC
Bryophytes/Lichens	na	10%	BL
<b>Total understorey projective foliage cover</b>		<b>70%</b>	

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Leptospermum laevigatum</i>	Coast Tea-tree
MS	<i>Acacia longifolia</i> ssp. <i>sophorae</i>	Coast Wattle
MS	<i>Rhagodia candolleana</i> ssp. <i>candolleana</i>	Seaberry Saltbush
MS	<i>Leucopogon parviflorus</i>	Coast Beard-heath
SS	<i>Leucophyta brownii</i>	Cushion Bush
SH	<i>Dichondra repens</i>	Kidney-weed
SH	<i>Disphyma crassifolium</i> ssp. <i>clavellatum</i>	Rounded Noon-flower
MTG	<i>Dianella brevicaulis</i>	Small-flower Flax-lily
MTG	<i>Lachnagrostis billardiarei</i> s.l.	Coast Blown-grass
MTG	<i>Poa poiformis</i>	Coast Tussock-grass
MTG	<i>Austrodanthonia caespitosa</i>	Common Wallaby-grass
MNG	<i>Ficinia nodosa</i>	Knobby Club-sedge
SC	<i>Clematis microphylla</i>	Small-leaved Clematis
SC	<i>Tetragonia implexicoma</i>	Bower Spinach

#### Recruitment:

Continuous

#### Organic Litter:

40 % cover

#### Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MS	<i>Chrysanthemoides monilifera</i>	Boneseed	high	high
MS	<i>Polygala myrtifolia</i> var. <i>myrtifolia</i>	Myrtle-leaf Milkwort	high	high
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MTG	<i>Ehrharta erecta</i> var. <i>erecta</i>	Panic Veldt-grass	high	high

# EVC 161: Coastal Headland Scrub – Victorian Volcanic Plain bioregion

Published by the Victorian Government Department of Sustainability and Environment November 2007

© The State of Victoria Department of Sustainability and Environment 2007

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic 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	3	10%	MS
Small Shrub	1	5%	SS
Large Herb	1	10%	LH
Medium Herb	3	10%	MH
Small or Prostrate Herb	2	5%	SH
Large Tufted Graminoid	3	10%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	4	20%	MTG
Medium to Tiny Non-tufted Graminoid	2	10%	MNG
Bryophytes/Lichens	na	10%	BL
<b>Total understorey projective foliage cover</b>		<b>90%</b>	

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Leucopogon parviflorus</i>	Coast Beard-heath
MS	<i>Correa alba</i>	White Correa
LH	<i>Epilobium billardierianum</i> ssp. <i>billardierianum</i>	Smooth Willow-herb
MH	<i>Viola hederacea</i> sensu <i>Willis (1972)</i>	Ivy-leaf Violet
MH	<i>Samolus repens</i>	Creeping Brookweed
MH	<i>Asperula conferta</i>	Common Woodruff
MH	<i>Sarcocornia quinqueflora</i>	Beaded Glasswort
SH	<i>Selliera radicans</i>	Shiny Swamp-mat
SH	<i>Mimulus repens</i>	Creeping Monkey-flower
SH	<i>Leptinella reptans</i> s.l.	Creeping Cotula
LTG	<i>Austrostipa stipoides</i>	Prickly Spear-grass
LTG	<i>Dichelachne crinita</i>	Long-hair Plume-grass
MTG	<i>Isolepis cernua</i>	Nodding Club-sedge
MTG	<i>Poa poiiformis</i>	Coast Tussock-grass
MTG	<i>Lachnagrostis filiformis</i>	Common Blown-grass
MTG	<i>Dianella revoluta</i> var. <i>brevicaulis</i>	Coast Flax-lily
MNG	<i>Distichlis distichophylla</i>	Australian Salt-grass
MNG	<i>Triglochin striatum</i>	Streaked Arrowgrass
MNG	<i>Ficinia nodosa</i>	Knobby Club-sedge

#### Recruitment:

Continuous

#### Organic Litter:

20% Cover

# EVC 163: Coastal Tussock Grassland - Victorian Volcanic Plain bioregion

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MS	<i>Rubus sp. aff. armeniacus</i>	Blackberry	high	high
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
LH	<i>Plantago lanceolata</i>	Ribwort	high	low
LH	<i>Sonchus asper s.l.</i>	Rough Sow-thistle	high	low
LH	<i>Centaureum tenuiflorum</i>	Slender Centaury	high	low
MH	<i>Lotus suaveolens</i>	Hairy Bird's-foot Trefoil	high	low
MH	<i>Plantago coronopus</i>	Buck's-horn Plantain	high	low
MH	<i>Anagallis arvensis</i>	Pimpernel	high	low
MH	<i>Leontodon taraxacoides ssp. taraxacoides</i>	Hairy Hawkbit	high	low
LTG	<i>Ammophila arenaria</i>	Marram Grass	high	high
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MTG	<i>Polypogon monspeliensis</i>	Annual Beard-grass	high	low

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 164: Creekline Herb-rich Woodland

#### Description:

Woodland or open forest to 15 m tall occurring on creek terraces and along shallow drainage lines with ephemeral flows. Soils are mostly alluvial deposits of seasonally wet sands and silts. Characterised by a sparse shrub layer above a grassy/sedgy understorey, often rich in herbs within the inter-tussock spaces.

#### 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 rubida</i>	Candlebark
	<i>Eucalyptus viminalis</i>	Manna Gum
	<i>Eucalyptus ovata</i>	Swamp Gum
	<i>Eucalyptus radiata</i> ssp. <i>radiata</i>	Narrow-leaf Peppermint

#### 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
Prostrate Shrub	1	5%	PS
Large Herb	2	5%	LH
Medium Herb	9	15%	MH
Small or Prostrate Herb	1	5%	SH
Large Tufted Graminoid	3	20%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	5	15%	MTG
Medium to Tiny Non-tufted Graminoid	1	5%	MNG
Ground Fern	1	5%	GF
Scrambler or Climber	2	1%	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
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
PS	<i>Acrotriche serrulata</i>	Honey-pots
LH	<i>Senecio minimus</i>	Shrubby Fireweed
MH	<i>Viola hederacea</i> sensu Willis (1972)	Ivy-leaf Violet
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Hydrocotyle hirta</i>	Hairy Pennywort
SH	<i>Goodenia lanata</i>	Trailing Goodenia
LTG	<i>Poa labillardierei</i>	Common Tussock-grass
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
LTG	<i>Juncus pallidus</i>	Pale Rush
LNG	<i>Gahnia radula</i>	Thatch Saw-sedge
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MTG	<i>Luzula meridionalis</i> var. <i>flaccida</i>	Common Woodrush
MTG	<i>Austrodanthonia penicillata</i>	Slender Wallaby-grass
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
SC	<i>Hardenbergia violacea</i>	Purple Coral-pea

# EVC 164: Creekline Herb-rich Woodland - Victorian Volcanic Plain bioregion

**Recruitment:**

Continuous

**Organic Litter:**

20 % cover

**Logs:**

10 m/0.1 ha.

**Weediness:**

LF Code	Typical Weed Species	Common Name	Invasive	Impact
T	<i>Crataegus monogyna</i>	Hawthorn	high	high
T	<i>Malus pumila</i>	Apple	high	high
T	<i>Salix spp.</i>	Willow	high	high
MS	<i>Rubus fruticosus spp. agg.</i>	Blackberry	high	high
LH	<i>Cirsium vulgare</i>	Spear Thistle	high	high
LH	<i>Sonchus asper s.l.</i>	Rough Sow-thistle	high	low
LH	<i>Rumex crispus</i>	Curled Dock	high	low
LH	<i>Conium maculatum</i>	Hemlock	high	high
MH	<i>Lotus uliginosus</i>	Greater Bird's-foot Trefoil	high	low
MH	<i>Acetosella vulgaris</i>	Sheep Sorrel	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MTG	<i>Juncus articulatus</i>	Jointed Rush	high	high
MTG	<i>Cyperus congestus</i>	Dense Flat-sedge	high	low

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 175: Grassy Woodland

#### Description:

A variable open eucalypt woodland to 15 m tall or occasionally Sheoak/Acacia woodland to 10 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.

\* *eucalypt woodland* only components (ignore when assessing non-eucalypt areas)

#### Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	70 cm	15 / ha
<i>Allocasuarina</i> spp.	40 cm	
<i>Acacia</i> spp.	30 cm	

#### 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
	<i>Allocasuarina verticillata</i>	Drooping Sheoak
	<i>Acacia implexa</i>	Lightwood
	<i>Acacia mearnsii</i>	Black Wattle

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub <sup>+</sup>	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
MS	<i>Bursaria spinosa</i>	Sweet Bursaria
MS	<i>Cassinia arcuata</i>	Drooping Cassinia
MS	<i>Acacia pycnantha</i>	Golden Wattle
MS	<i>Hymenanthera dentata</i> s.l.	Tree Violet
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
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
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 - Victorian Volcanic 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

Published by the Victorian Government Department of Sustainability and Environment May 2005

© The State of Victoria Department of Sustainability and Environment 2005

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)



## EVC/Bioregion Benchmark for Vegetation Quality Assessment

### Victorian Volcanic Plain Bioregion

#### EVC 175\_61: Non-Eucalypt Grassy Woodland

##### Description:

A variable open eucalypt woodland to 15 m tall or occasionally Sheoak woodland to 10 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>Acacia</i> spp.	30 cm	15 / ha
<i>Allocasuarina</i> spp.	40 cm	
<i>Eucalyptus</i> spp.	70 cm	

##### Tree Canopy Cover:

%cover	Character Species	Common Name
15%	<i>Acacia implexa</i>	Lightwood
	<i>Acacia mearnsii</i>	Black Wattle
	<i>Allocasuarina verticillata</i>	Drooping Sheoak
	<i>Eucalyptus ovata</i>	Swamp Gum
	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
	<i>Eucalyptus viminalis</i>	Manna Gum

##### Understorey:

Lifeform	#Spp	%Cover	LF Code
Immature Canopy Tree		5%	IT
Medium Shrub	2	10%	MS
Small Shrub	2	1%	SS
Prostrate Shrub	2	5%	PS
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		10%	BL



# EVC 175\_61: Non-Eucalypt Grassy Woodland

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Acacia pycnantha</i>	Golden Wattle
MS	<i>Bursaria spinosa</i>	Sweet Bursaria
MS	<i>Cassinia arcuata</i>	Drooping Cassinia
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 subsp. nutans</i>	Nodding Saltbush
SH	<i>Crassula sieberiana s.l.</i>	Sieber Crassula
SH	<i>Dichondra repens</i>	Kidney-weed
LTG	<i>Various spp.</i>	
LTG	<i>Various spp.</i>	
MTG	<i>Austrodanthonia caespitosa</i>	Common Wallaby-grass
MTG	<i>Austrostipa scabra</i>	Rough Spear-grass
MTG	<i>Dianella revoluta s.l.</i>	Black-anther Flax-lily
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MNG	<i>Microlaena stipoides var. stipoides</i>	Weeping Grass
SC	<i>Clematis microphylla</i>	Small-leaved Clematis

## Recruitment:

Continuous.

## Organic Litter:

20 % cover

## Logs:

15 m/0.1ha.

## Weediness:

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

Published by the Victorian Government Department of Sustainability and Environment  
© The State of Victoria Government Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be directed to the Nominated Officer, Copyright, 8 Nicholson St, East Melbourne, Victoria 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss, or other consequences which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 191: Riparian Scrub

#### Description:

A dense shrubland to 6 m tall growing on waterlogged substrates often with a peaty surface horizon. Emergent eucalypts may be occasionally present. The understorey typically consists of sedges tolerant of seasonal waterlogging. Occurs along creeks and minor stream tributaries of the lowland plains.

#### Canopy Cover:

%cover	Character Species	Common Name
60%	<i>Leptospermum lanigerum</i>	Woolly Tea-tree

#### Understorey:

Life form	#Spp	%Cover	LF code
Medium Shrub	3	20%	MS
Large Herb	4	10%	LH
Medium Herb	8	10%	MH
Small or Prostrate Herb	4	5%	SH
Large Tufted Graminoid	3	20%	LTG
Large Non-tufted Graminoid	2	5%	LNG
Medium to Small Tufted Graminoid	5	10%	MTG
Medium to Tiny Non-tufted Graminoid	3	10%	MNG
Bryophytes/Lichens	na	20%	BL

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Coprosma quadrifida</i>	Prickly Currant-bush
MS	<i>Bursaria spinosa ssp. spinosa</i>	Sweet Bursaria
MH	<i>Oxalis perennans</i>	Grassland Wood-sorrel
SH	<i>Oxalis exilis</i>	Shady Wood-sorrel
SH	<i>Crassula helmsii</i>	Swamp Crassula
LTG	<i>Poa labillardierei</i>	Common Tussock-grass
LTG	<i>Carex tereticaulis</i>	Hollow Sedge
LTG	<i>Carex appressa</i>	Tall Sedge
LNG	<i>Phragmites australis</i>	Common Reed
MTG	<i>Triglochin procerum s.l.</i>	Water Ribbons
MNG	<i>Triglochin striatum</i>	Streaked Arrowgrass
MNG	<i>Microlaena stipoides var. stipoides</i>	Weeping Grass

#### Recruitment:

Continuous

#### Organic Litter:

40 % cover

# EVC 191: Riparian Scrub - Victorian Volcanic Plain bioregion

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LH	<i>Rumex conglomeratus</i>	Clustered Dock	high	high
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
LH	<i>Cirsium vulgare</i>	Spear Thistle	high	high
MH	<i>Trifolium dubium</i>	Suckling Clover	high	low
MH	<i>Trifolium subterraneum</i>	Subterranean Clover	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	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>Bromus hordeaceus</i> ssp. <i>hordeaceus</i>	Soft Brome	high	low
MTG	<i>Briza maxima</i>	Large Quaking-grass	high	low
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MTG	<i>Romulea rosea</i>	Onion Grass	high	low
MTG	<i>Bromus diandrus</i>	Great Brome	high	low
MTG	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	high	high
MNG	<i>Cynosurus echinatus</i>	Rough Dog's-tail	high	low

Published by the Victorian Government Department of Sustainability and Environment January 2005

© The State of Victoria Department of Sustainability and Environment 2005

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 195: Seasonally Inundated Shrubby Woodland

#### Description:

Shrub-dominated eucalypt woodland to 15 m tall with an understorey visually dominated by medium shrubs and including a range of sedges and grasses and herbs including a number of annuals. Occurs on moderately fertile, poorly-drained, shallow sand or silty topsoils over heavier clay subsoils that naturally impede drainage. Often associated with recent Quaternary swamp deposits and broad, seasonal drainage lines and outwash flats. Soils are generally inundated or waterlogged in winter and baked hard in summer, which promotes sedges and annual species.

#### 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 camaldulensis</i>	River Red 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	8	40%	MS
Small Shrub	2	10%	SS
Prostrate Shrub	1	1%	PS
Medium Herb	5	10%	MH
Small Herb*	4	10%	SH
Large Tufted Graminoid	2	5%	LTG
Medium to Small Tufted Graminoid	4	10%	MTG
Medium to Tiny Non-tufted Graminoid	2	10%	MNG
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C

\* Largely seasonal life form

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>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Melaleuca decussata</i>	Totem-poles
MS	<i>Leptospermum scoparium</i>	Manuka
SS	<i>Hibbertia riparia</i>	Upright Guinea-flower
PS	<i>Astroloma humifusum</i>	Cranberry Heath
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Acaena echinata</i>	Sheep's Burr
MH	<i>Villarsia reniformis</i>	Running Marsh-flower
MH	<i>Hypericum gramineum</i>	Small St. John's-wort
SH	<i>Dichondra repens</i>	Kidneyweed
SH	<i>Lobelia pedunculata</i> s.l.	Matted Pratia
LTG	<i>Gahnia sieberiana</i>	Red-fruit Saw-sedge
LTG	<i>Juncus pallidus</i>	Pale Rush
MTG	<i>Schoenus apogon</i>	Common Bog-sedge
MTG	<i>Deyeuxia quadriseta</i>	Reed Bent-grass
MTG	<i>Juncus amabilis</i>	Hollow Rush
MNG	<i>Baumea juncea</i>	Bare Twig-sedge
MNG	<i>Juncus holoschoenus</i>	Joint-leaf Rush

# EVC 195: Seasonally Inundated Shrubby Woodland - Victorian Volcanic Plain bioregion

**Recruitment:**

Continuous

**Organic Litter:**

20 % cover

**Logs:**

15 m/0.1 ha.

**Weediness:**

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

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic 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 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	1	10%	T
Medium Shrub	5	20%	MS
Medium Herb	3	10%	MH
Large Tufted Graminoid	5	30%	LTG
Medium to Small Tufted Graminoid	2	5%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Ground Fern	2	10%	GF
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>Melaleuca squarrosa</i>	Scented Paperbark
MS	<i>Leptospermum lanigerum</i>	Woolly Tea-tree
MS	<i>Goodenia ovata</i>	Hop Goodenia
MS	<i>Coprosma quadrifida</i>	Prickly Currant-bush
MH	<i>Viola hederacea sensu Entwisle (1996)</i>	Ivy-leaf Violet
MH	<i>Gonocarpus humilis</i>	Shade Raspwort
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
LTG	<i>Gahnia clarkei</i>	Tall Saw-sedge
LTG	<i>Baloskion tetraphyllum ssp. tetraphyllum</i>	Tassel Cord-rush
LTG	<i>Lepidosperma elatius</i>	Tall Sword-sedge
LTG	<i>Juncus procerus</i>	Tall Rush
MTG	<i>Dianella longifolia</i>	Pale Flax-lily
MNG	<i>Poa tenera</i>	Slender Tussock-grass
MNG	<i>Microlaena stipoides var. stipoides</i>	Weeping Grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Blechnum nudum</i>	Fishbone Water-fern

# EVC 198: Sedgy Riparian Woodland - Victorian Volcanic 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 ulmifolius</i>	Blackberry	high	high
LH	<i>Rumex crispus</i>	Curled Dock	high	low
MH	<i>Batrachium trichophyllum</i>	Water Fennel	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Centaureum erythraea</i>	Common Centaury	high	low
SH	<i>Callitriche stagnalis</i>	Common Starwort	high	high
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MTG	<i>Juncus bulbosus</i>	Bulbous Rush	high	high

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic 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	8	15%	MH
Small or Prostrate Herb	4	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>Ranunculus sessiliflorus</i>	Annual Buttercup
MH	<i>Parietaria debilis</i> s.l.	Shade Pellitory
SH	<i>Oxalis exilis</i>	Shady Wood-sorrel
SH	<i>Crassula sieberiana</i>	Sieber Crassula
SH	<i>Dichondra repens</i>	Kidney-weed
MTG	<i>Austrodanthonia racemosa</i> var. <i>racemosa</i>	Striped 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 - Victorian Volcanic 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	high
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

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 283: Plains Sedgy Woodland

#### Description:

Occurs in shallow depressions associated with broad plains or floodplains. Soils are poorly drained, cracking clays which can seasonally form shallow freshwater marshes. The vegetation is an open woodland to 15 m tall, with shrubs and understorey trees generally absent, and sedges predominating in the ground layer. Herbs typical of inundated environments are present, but also grass, herb and geophyte species common to surrounding woodlands.

#### Large trees:

Species	DBH(cm)	# / ha
<i>Eucalyptus</i> spp.	70 cm	15 / ha
<i>Allocasuarina luehmannii</i>	40 cm	

#### Tree Canopy Cover:

%cover	Character Species	Common Name
10%	<i>Eucalyptus leucoxylon</i>	Yellow Gum
	<i>Eucalyptus camaldulensis</i>	River Red-gum
	<i>Eucalyptus melliodora</i>	Yellow Box
	<i>Allocasuarina luehmannii</i>	Buloke

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Medium Shrub	2	5%	MS
Small Shrub	2	1%	SS
Large Herb	4	15%	LH
Medium Herb	10	20%	MH
Small or Prostrate Herb	2	5%	SH
Large Tufted Graminoid	2	1%	LTG
Large Non-tufted Graminoid	1	1%	LNG
Medium to Small Tufted Graminoid	13	30%	MTG
Medium to Tiny Non-tufted Graminoid	4	20%	MNG
Bryophytes/Lichens	na	10%	BL



# EVC 283: Plains Sedgy Woodland – Victorian Volcanic Plain bioregion

LF Code	Species typical of at least part of EVC range	Common Name
MS	v <i>Comesperma polygaloides</i>	Small Milkwort
SS	<i>Eutaxia microphylla</i>	Common Eutaxia
PS	<i>Astroloma humifusum</i>	Cranberry Heath
PS	<i>Acrotriche serrulata</i>	Honey-pots
LH	<i>Eryngium ovinum</i>	Blue Devil
LH	<i>Brachyscome cardiocarpa</i>	Swamp Daisy
LH	<i>Villarsia reniformis</i>	Running Marsh-flower
MH	<i>Utricularia dichotoma</i> s.l.	Fairies' Aprons
MH	<i>Drosera peltata</i> ssp. <i>peltata</i>	Pale Sundew
SH	<i>Solenogyne dominii</i>	Smooth Solenogyne
SH	<i>Myriocephalus rhizocephalus</i>	Woolly-heads
SH	<i>Hydrocotyle laxiflora</i>	Stinking Pennywort
LTG	<i>Amphibromus nervosus</i>	Common Swamp Wallaby-grass
LNG	<i>Baumea rubiginosa</i> s.l.	Soft Twig-rush
MTG	<i>Lepidosperma congestum</i>	Clustered Sword-sedge
MTG	<i>Austrodanthonia setacea</i>	Bristly Wallaby-grass
MTG	<i>Lachnagrostis filiformis</i> var. <i>filiformis</i>	Common Blown-grass
MTG	<i>Schoenus apogon</i>	Common Bog-sedge
MNG	<i>Chorizandra enodis</i>	Black Bristle-sedge
MNG	<i>Eleocharis acuta</i>	Common Spike-sedge
TTG	<i>Centrolepis aristata</i>	Pointed Centrolepis
TTG	<i>Centrolepis strigosa</i> ssp. <i>strigosa</i>	Hairy Centrolepis
TTG	<i>Centrolepis glabra</i>	Smooth Centrolepis
TTG	<i>Aphelia gracilis</i>	Slender Aphelia
SC	<i>Thysanotus patersonii</i>	Twining Fringe-lily

**Recruitment:**  
Continuous

**Organic Litter:**  
10 % 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
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Hypochoeris glabra</i>	Smooth Cat's-ear	high	low
MH	<i>Cicendia filiformis</i>	Slender Cicendia	high	low
MH	<i>Anagallis arvensis</i>	Pimpernel	high	low
MTG	<i>Romulea rosea</i>	Onion Grass	high	low
MTG	<i>Briza minor</i>	Lesser Quaking-grass	high	low
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MNG	<i>Juncus capitatus</i>	Capitate Rush	high	low
TTG	<i>Cyperus tenellus</i>	Tiny Flat-sedge	high	low
TTG	<i>Isolepis hystrix</i>	Awned Club-sedge	high	low

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain Bioregion

### EVC 291: Cane Grass Wetland

#### Description:

Open-grassland, typically very species-poor except on outer verges, often with monospecific (or virtually so) cane-grass dominated centres. Occur on alluvial plains in shallow (~1 m deep) depressions, on very heavy grey clay soils, prone to turbidity when inundated (4-6 months) and extreme cracking when dry.

#### Understorey:

Lifeform	#Spp	%Cover	LF Code
Small or Prostrate Herb	2	10%	SH
Medium to Tiny Non-Tufted Graminoid	2	40%	MNG

LF Code	Species typical of at least part of EVC range	Common Name
SH	<i>Apium annuum</i>	Annual Celery
SH	<i>Azolla filiculoides</i>	Pacific Azolla
SH	<i>Lemna disperma</i>	Common Duckweed
MNG	<i>Eleocharis acuta</i>	Common Spike-sedge
MNG	<i>Eragrostis infecunda</i>	Southern Cane-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/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 292: Red Gum Swamp

#### Description:

Open woodland to 15 m tall. Occurs on alluvial plains in the seasonally wet depressions of shallow drainage lines or prior stream meanders, typically associated with heavy paludal soils, sometimes with gilgai development. The annual rainfall across its distribution is generally below 700 mm, and the period of inundation may range from 2 to 6 months. River Red Gum woodland with sedgy or grassy-herbaceous ground-layer, comprising various balances of true aquatics and species tolerant of intermittent to seasonal inundation.

#### Large trees:

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

#### Tree Canopy Cover:

%cover	Character Species	Common Name
15%	<i>Eucalyptus camaldulensis</i>	River Red-gum

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Large Herb	2	10%	LH
Medium Herb	7	25%	MH
Small or Prostrate Herb	2	1%	SH
Large Tufted Graminoid	2	15%	LTG
Medium to Small Tufted Graminoid	6	20%	MTG
Medium to Tiny Non-tufted Graminoid	2	15%	MNG

LF Code	Species typical of at least part of EVC range	Common Name
LH	<i>Villarsia reniformis</i>	Running Marsh-flower
LH	<i>Eryngium ovinum</i>	Blue Devil
MH	<i>Potamogeton tricarlinatus</i> s.l.	Floating Pondweed
MH	<i>Lythrum hyssopifolia</i>	Small Loosestrife
MH	<i>Drosera peltata</i> ssp. <i>peltata</i>	Pale Sundew
MH	<i>Haloragis aspera</i>	Rough Raspwort
SH	<i>Lobelia pratioides</i>	Poison Lobelia
SH	<i>Solenogyne dominii</i>	Smooth Solenogyne
LTG	<i>Amphibromus nervosus</i>	Common Swamp Wallaby-grass
LTG	<i>Carex tereticaulis</i>	Hollow Sedge
MTG	<i>Juncus holoschoenus</i>	Joint-leaf Rush
MTG	<i>Lachnagrostis filiformis</i>	Common Blown-grass
MTG	<i>Schoenus tesquorum</i>	Soft Bog-sedge
MTG	<i>Isolepis fluitans</i>	Floating Club-sedge
MNG	<i>Eleocharis acuta</i>	Common Spike-sedge

#### Recruitment:

Episodic/Flood – desirable period of disturbance is once every 5 years

#### Organic Litter:

10% Cover

#### Logs:

10m/0.1 ha

#### Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MNG	<i>Briza minor</i>	Lesser Quaking-grass	high	low

# EVC 292: Red Gum Swamp - Victorian Volcanic Plain bioregion

Published by the Victorian Government Department of Sustainability and Environment October 2005

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 311: Berm Grassy Shrubland

#### Description:

Low shrubland to 1.5 m tall occurring in sheltered coastal areas where sand deposits have formed as a result of low energy wave action. Contains a number of halophytic species over a ground layer of grasses and herbs.

#### Life Forms:

Life form	#Spp	%Cover	LF code
Medium Shrub	3	20%	MS
Small Shrub	1	5%	SS
Large Herb	2	5%	LH
Medium Herb	2	10%	MH
Small Herb	2	5%	SH
Large Tufted Graminoid	1	1%	LTG
Medium to Small Tufted Graminoid	2	25%	MTG
Medium to Tiny Non-tufted Graminoid	2	10%	MNG
<b>Total understorey projective foliage cover</b>		<b>70%</b>	

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Atriplex cinerea</i>	Coast Saltbush
MS	<i>Rhagodia candolleana</i> ssp. <i>candolleana</i>	Seaberry Saltbush
SS	<i>Frankenia pauciflora</i> var. <i>gunnii</i>	Southern Sea-heath
LH	<i>Senecio pinnatifolius</i>	Variable Groundsel
LH	<i>Senecio glomeratus</i>	Annual Fireweed
MH	<i>Sarcocornia quinqueflora</i> ssp. <i>quinqueflora</i>	Beaded Glasswort
MH	<i>Pseudognaphalium luteoalbum</i>	Jersey Cudweed
MH	<i>Actites megalocarpa</i>	Coast Sow-thistle
SH	<i>Disphyma crassifolium</i> ssp. <i>clavellatum</i>	Rounded Noon-flower
SH	<i>Dichondra repens</i>	Kidneyweed
LTG	<i>Dichelachne crinita</i>	Long-hair Plume Grass
MTG	<i>Poa poiformis</i>	Coast Tussock-grass
MTG	<i>Austrofestuca littoralis</i>	Coast Fescue
MNG	<i>Distichlis distichophylla</i>	Australian Salt-grass
MNG	<i>Ficinia nodosa</i>	Knobby Club-sedge

#### Recruitment:

Continuous

#### Organic Litter:

10% Cover

#### Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MS	<i>Chrysanthemoides monilifera</i> ssp. <i>monilifera</i>	Boneseed	high	high
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
LH	<i>Conyza albida</i>	Tall Fleabane	high	low
MH	<i>Polycarpon tetraphyllum</i>	Four-leaved Allseed	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Anagallis arvensis</i>	Pimpernel	high	low
MNG	<i>Vulpia myuros</i>	Rat's-tail Fescue	high	low
MNG	<i>Lagurus ovatus</i>	Hare's-tail Grass	high	low

# EVC 311: Berm Grassy Shrubland - Victorian Volcanic Plain bioregion

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 641: Riparian Woodland

#### Description:

Occurs beside permanent streams, typically on narrow alluvial deposits. Woodland to 15 m tall generally dominated by *Eucalyptus camaldulensis* over a tussock grass-dominated understorey. Tall shrubs may be present and amphibious herbs may occur in occasional ponds and beside creeks. While flooding may be common, sites are rarely inundated for lengthy periods.

#### Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	80 cm	15 / ha

#### Tree Canopy Cover:

%cover	Character Species	Common Name
20%	<i>Eucalyptus camaldulensis</i>	River Red-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	1	5%	SS
Large Herb	4	15%	LH
Medium Herb	5	10%	MH
Small or Prostrate Herb	1	5%	SH
Large Tufted Graminoid	3	10%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	4	20%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Scrambler or Climber	1	5%	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>Bursaria spinosa</i> ssp. <i>spinosa</i>	Sweet Bursaria
MS	<i>Viminaria juncea</i>	Golden Spray
SS	<i>Rubus parvifolius</i>	Small-leaf Bramble
LH	<i>Wahlenbergia gracilis</i> s.s.	Sprawling Bluebell
LH	<i>Senecio quadridentatus</i>	Cottony Fireweed
LH	<i>Myriophyllum crispatum</i>	Upright Water-milfoil
MH	<i>Rumex brownii</i>	Slender Dock
MH	<i>Oxalis perennans</i>	Grassland Wood-sorrel
MH	<i>Mentha australis</i>	River Mint
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
SH	<i>Dichondra repens</i>	Kidneyweed
LTG	<i>Poa labillardierei</i>	Common Tussock-grass
LTG	<i>Carex appressa</i>	Tall Sedge
LNG	<i>Phragmites australis</i>	Common Reed
MTG	<i>Lachnagrostis filiformis</i> var. <i>filiformis</i>	Common Blown-grass
MTG	<i>Triglochin procerum</i> s.l.	Water-ribbons
MNG	<i>Eleocharis acuta</i>	Common Spike-sedge
SC	<i>Calystegia sepium</i>	Large Bindweed

# EVC 641: Riparian Woodland - Victorian Volcanic Plain bioregion

**Recruitment:**

Continuous

**Organic Litter:**

30% cover

**Logs:**

20m / 0.1 ha

**Weediness:**

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MS	<i>Rosa rubiginosa</i>	Sweet Briar	high	high
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
LH	<i>Cirsium vulgare</i>	Spear Thistle	high	high
LH	<i>Plantago lanceolata</i>	Ribwort	high	low
LH	<i>Helminthotheca echinoides</i>	Ox-tongue	high	low
LH	<i>Rumex crispus</i>	Curled Dock	high	low
LH	<i>Aster subulatus</i>	Aster-weed	high	low
LH	<i>Rorippa palustris</i>	Marsh Yellow-cress	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
LTG	<i>Phalaris aquatica</i>	Toowoomba Canary-grass	high	high
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MTG	<i>Bromus hordeaceus</i> ssp. <i>hordeaceus</i>	Soft Brome	high	low
MTG	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	high	high
MNG	<i>Paspalum distichum</i>	Water Couch	high	high
SC	<i>Galium aparine</i>	Cleavers	high	low

Published by the Victorian Government Department of Sustainability and Environment April 2006

© The State of Victoria Department of Sustainability and Environment 2006

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic 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 ssp. 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 s.l.</i>	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 ssp. 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 var. stipoides</i>	Weeping Grass
GF	<i>Pteridium esculentum</i>	Austral Bracken



# EVC 642: Basalt Shrubby Woodland - Victorian Volcanic 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 s.s.</i>	Spiked Cudweed	high	low
MH	<i>Leontodon taraxacoides ssp. 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

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 644: Cinder Cone Woodland

#### Description:

Eucalypt woodland to 15 m tall over a diverse ground layer of grasses and herbs. Associated with tuff (volcanic ash) volcanoes.

#### 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	5%	T
Medium Shrub	2	10%	MS
Large Herb	2	5%	LH
Medium Herb	5	10%	MH
Small or Prostrate Herb	1	1%	SH
Large Tufted Graminoid	1	20%	LTG
Medium to Small Tufted Graminoid	2	5%	MTG
Medium to Tiny Non-tufted Graminoid	1	1%	MNG
Ground Fern	2	20%	GF
Scrambler or Climber	1	1%	SC
Bryophytes/Lichens	na	10%	BL
<b>Total understorey projective foliage cover</b>		<b>85%</b>	

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia melanoxylon</i>	Blackwood
MS	<i>Leucopogon parviflorus</i>	Coast Beard-heath
MS	<i>Solanum laciniatum</i>	Large Kangaroo Apple
LH	<i>Senecio pinnatifolius</i>	Variable Groundsel
LH	<i>Rumex brownii</i>	Wiry Dock
LH	<i>Epilobium billardierianum</i>	Variable Willow-herb
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
MH	<i>Geranium potentilloides</i>	Cinquefoil Cranesbill
SH	<i>Dichondra repens</i>	Kidney-weed
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
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Pellaea falcata</i> s.l.	Sickle Fern
SC	<i>Clematis aristata</i>	Mountain Clematis

#### Recruitment:

Continuous

#### Organic Litter:

20 % cover

#### Logs:

10 m/0.1 ha.

# EVC 644: Cinder Cone Woodland - Victorian Volcanic Plain bioregion

## 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

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic 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 - Victorian Volcanic Plain bioregion

Published by the Victorian Government Department of Sustainability and Environment May 2005

© The State of Victoria Department of Sustainability and Environment 2005

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 649: Stony Knoll Shrubland

#### Description:

Stony Knoll Shrubland is a shrubland to 3 m tall or low non-eucalypt woodland to 8 m tall with a grassy understorey. It occurs on low stony rises on basalt flows. The soils are fertile and well drained but shallow with out cropping rock, causing severe summer dryness.

+ woodland only components (ignore when assessing treeless areas and standardise final score as appropriate)

#### Canopy Cover<sup>+</sup>:

%cover	Character Species	Common Name
15%	<i>Allocasuarina verticillata</i> <i>Bursaria spinosa</i>	Drooping Sheoak Sweet Bursaria

#### Understorey:

Life form	#Spp	%Cover	LF code
Medium Shrub	3	10%	MS
Prostrate Shrub	1	1%	PS
Large Herb	2	1%	LH
Medium Herb	11	10%	MH
Small or Prostrate Herb	4	5%	SH
Medium to Small Tufted Graminoid	10	25%	MTG
Tiny Tufted Graminoid	2	5%	TTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Ground Fern	2	5%	GF
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C
<b>Total understorey projective foliage cover</b>		<b>85%</b>	

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Hymenanthera dentata</i> s.l.	Tree Violet
MS	<i>Acacia paradoxa</i>	Hedge Wattle
PS	<i>Kennedia prostrata</i>	Running Postman
LH	<i>Senecio quadridentatus</i>	Cotton Fireweed
LH	<i>Senecio glomeratus</i>	Annual Fireweed
MH	<i>Oxalis perennans</i>	Grassland Wood-sorrel
MH	<i>Rumex brownii</i>	Slender Dock
MH	<i>Hypericum gramineum</i>	Small St John's Wort
MH	<i>Acaena ovina</i>	Australian Sheep's Burr
SH	<i>Dichondra repens</i>	Kidneyweed
SH	<i>Hydrocotyle laxiflora</i>	Stinking Pennywort
SH	<i>Crassula sieberiana</i>	Sieber Crassula
MTG	<i>Themeda triandra</i>	Kangaroo Grass
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
MTG	<i>Austrodanthonia caespitosa</i>	Common Wallaby-grass
MTG	<i>Austrodanthonia setacea</i>	Bristly Wallaby-grass
TTG	<i>Carex breviculmis</i>	Short-stem Sedge
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Adiantum aethiopicum</i>	Common Maidenhair
SC	<i>Convolvulus erubescens</i> spp. agg.	Pink Bindweed

#### Recruitment:

Continuous

#### Organic Litter:

20 % cover

# EVC 649: Stony Knoll Shrubland - Victorian Volcanic Plain bioregion

## Logs<sup>+</sup>:

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

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
T	<i>Schinus molle</i>	Pepper Tree	high	high
MS	<i>Lycium ferocissimum</i>	African Box-thorn	high	high
MS	<i>Genista monspessulana</i>	Montpellier Broom	high	high
SS	<i>Marrubium vulgare</i>	Horehound	high	high
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
LH	<i>Helminthotheca echinoides</i>	Ox-tongue	high	low
LH	<i>Lactuca serriola</i>	Prickly Lettuce	high	low
LH	<i>Sisymbrium officinale</i>	Hedge Mustard	high	low
LH	<i>Sonchus asper</i> s.l.	Rough Sow-thistle	high	low
LH	<i>Verbascum thapsus</i> ssp. <i>thapsus</i>	Great Mullein	high	high
LH	<i>Echium plantagineum</i>	Paterson's Curse	high	high
LH	<i>Centaurea tenuiflorum</i>	Slender Centaury	high	low
LH	<i>Foeniculum vulgare</i>	Fennel	high	high
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Trifolium arvense</i> var. <i>arvense</i>	Hare's-foot Clover	high	low
MH	<i>Trifolium subterraneum</i>	Subterranean Clover	high	low
MH	<i>Trifolium campestre</i> var. <i>campestre</i>	Hop Clover	high	low
MH	<i>Trifolium angustifolium</i> var. <i>angustifolium</i>	Narrow-leaf Clover	high	low
MH	<i>Lotus suaveolens</i>	Hairy Bird's-foot Trefoil	high	low
MH	<i>Cerastium glomeratum</i> s.l.	Common Mouse-ear Chickweed	high	low
SH	<i>Medicago polymorpha</i>	Burr Medic	high	low
SH	<i>Trifolium glomeratum</i>	Cluster Clover	high	low
SH	<i>Modiola caroliniana</i>	Red-flower Mallow	high	low
SH	<i>Aptenia cordifolia</i>	Heart-leaf Ice-plant	high	high
LTG	<i>Phalaris aquatica</i>	Toowoomba Canary-grass	high	high
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
LNG	<i>Avena fatua</i>	Wild Oat	high	low
MTG	<i>Nassella trichotoma</i>	Serrated Tussock	high	high
MTG	<i>Ehrharta longiflora</i>	Annual Veldt-grass	high	low
MTG	<i>Briza maxima</i>	Large Quaking-grass	high	low
MTG	<i>Bromus hordeaceus</i> ssp. <i>hordeaceus</i>	Soft Brome	high	low
MTG	<i>Sporobolus africanus</i>	Rat-tail Grass	high	high
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MTG	<i>Romulea rosea</i>	Onion Grass	high	low
MTG	<i>Pentstemonis airoides</i> ssp. <i>airoides</i>	False Hair-grass	high	low
MTG	<i>Lolium perenne</i>	Perennial Rye-grass	high	low
MTG	<i>Dactylis glomerata</i>	Cocksfoot	high	high
MTG	<i>Vulpia myuros</i>	Rat's-tail Fescue	high	low
MTG	<i>Bromus rubens</i>	Red Brome	high	low
MTG	<i>Avena barbata</i>	Bearded Oat	high	low
MTG	<i>Aira caryophylla</i>	Silvery Hair-grass	high	low
SC	<i>Vicia sativa</i> ssp. <i>sativa</i>	Common Vetch	low	low

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)

## EVC/Bioregion Benchmark for Vegetation Quality Assessment

### Victorian Volcanic Plain Bioregion

#### EVC 649\_61: Treed Stony Knoll Shrubland

##### Description:

Stony Knoll Shrubland is a shrubland to 3 m tall or low non-eucalypt woodland to 8 m tall with a grassy understorey. It occurs on low stony rises on basalt flows. The soils are fertile and well drained but shallow with out cropping rock, causing severe summer dryness.

##### Tree Canopy Cover:

%cover	Character Species	Common Name
15%	<i>Allocasuarina verticillata</i>	Drooping Sheoak
	<i>Bursaria spinosa</i>	Sweet Bursaria

##### Understorey:

Lifeform	#Spp	%Cover	LF Code
Medium Shrub	3	10%	MS
Prostrate Shrub	1	1%	PS
Large Herb	2	1%	LH
Medium Herb	11	10%	MH
Small or Prostrate Herb	4	5%	SH
Medium to Small Tufted Graminoid	10	25%	MTG
Medium to Tiny Non-Tufted Graminoid	2	5%	MNG
Tiny Tufted Graminoid	2	5%	TTG
Ground Fern	2	5%	GF
Bryophytes/Lichens		10%	BL
Soil Crust		10%	S/C

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Acacia paradoxa</i>	Hedge Wattle
MS	<i>Melicytus dentatus s.l.</i>	Tree Violet
PS	<i>Kennedia prostrata</i>	Running Postman
LH	<i>Senecio glomeratus</i>	Annual Fireweed
LH	<i>Senecio quadridentatus</i>	Cotton Fireweed
MH	<i>Acaena ovina</i>	Australian Sheep's Burr
MH	<i>Hypericum gramineum</i>	Small St John's Wort
MH	<i>Oxalis perennans</i>	Grassland Wood-sorrel
MH	<i>Rumex brownii</i>	Slender Dock
SH	<i>Crassula sieberiana s.l.</i>	Sieber Crassula
SH	<i>Dichondra repens</i>	Kidney-weed
SH	<i>Hydrocotyle laxiflora</i>	Stinking Pennywort
MTG	<i>Austrodanthonia caespitosa</i>	Common Wallaby-grass
MTG	<i>Austrodanthonia setacea</i>	Bristly Wallaby-grass
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
MTG	<i>Themeda triandra</i>	Kangaroo Grass
MNG	<i>Microlaena stipoides var. stipoides</i>	Weeping Grass
TTG	<i>Carex breviculmis</i>	Common Grass-sedge

# EVC 649\_61: Treed Stony Knoll Shrubland

LF Code	Species typical of at least part of EVC range	Common Name
GF	<i>Adiantum aethiopicum</i>	Common Maidenhair
GF	<i>Pteridium esculentum</i>	Austral Bracken

## Recruitment:

Continuous.

## Organic Litter:

20 % cover

## Logs:

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

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LTG	<i>Phalaris aquatica</i>	Toowoomba Canary-grass	high	high
MTG	<i>Nassella trichotoma</i>	Serrated Tussock	high	high
MTG	<i>Dactylis glomerata</i>	Cocksfoot	high	high
MTG	<i>Sporobolus africanus</i>	Rat-tail Grass	high	high
MS	<i>Genista monspessulana</i>	Montpellier Broom	high	high
LH	<i>Foeniculum vulgare</i>	Fennel	high	high
LH	<i>Verbascum thapsus subsp. thapsus</i>	Great Mullein	high	high
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
T	<i>Schinus molle</i>	Pepper Tree	high	high
MS	<i>Lycium ferocissimum</i>	African Box-thorn	high	high
SH	<i>Aptenia cordifolia</i>	Heart-leaf Ice-plant	high	high
LH	<i>Echium plantagineum</i>	Paterson's Curse	high	high
SS	<i>Marrubium vulgare</i>	Horehound	high	high
MTG	<i>Bromus hordeaceus subsp. hordeaceus</i>	Soft Brome	high	low
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MTG	<i>Romulea rosea</i>	Onion Grass	high	low
MTG	<i>Pentstemon airoides subsp. airoides</i>	False Hair-grass	high	low
MTG	<i>Lolium perenne</i>	Perennial Rye-grass	high	low
MTG	<i>Vulpia myuros</i>	Rat's-tail Fescue	high	low
MTG	<i>Bromus rubens</i>	Red Brome	high	low
MTG	<i>Avena barbata</i>	Bearded Oat	high	low
MTG	<i>Aira caryophylla</i>	Silvery Hair-grass	high	low
MH	<i>Lotus subbiflorus</i>	Hairy Bird's-foot Trefoil	high	low
MH	<i>Trifolium angustifolium var. angustifolium</i>	Narrow-leaf Clover	high	low
MH	<i>Trifolium campestre var. campestre</i>	Hop Clover	high	low
MH	<i>Trifolium arvense var. arvense</i>	Hare's-foot Clover	high	low
LH	<i>Sonchus asper s.l.</i>	Rough Sow-thistle	high	low
LH	<i>Sisymbrium officinale</i>	Hedge Mustard	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
LH	<i>Centaurea tenuiflorum</i>	Slender Centaury	high	low
MTG	<i>Briza maxima</i>	Large Quaking-grass	high	low
LH	<i>Helminthotheca echioides</i>	Ox-tongue	high	low
LH	<i>Lactuca serriola</i>	Prickly Lettuce	high	low
SH	<i>Medicago polymorpha</i>	Burr Medic	high	low
SH	<i>Trifolium glomeratum</i>	Cluster Clover	high	low
SH	<i>Modiola caroliniana</i>	Red-flower Mallow	high	low
LNG	<i>Avena fatua</i>	Wild Oat	high	low
MTG	<i>Ehrharta longiflora</i>	Annual Veldt-grass	high	low
MH	<i>Trifolium subterraneum</i>	Subterranean Clover	high	low
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
MH	<i>Cerastium glomeratum s.l.</i>	Common Mouse-ear Chickweed	high	low
SC	<i>Vicia sativa subsp. sativa</i>	Common Vetch	low	low



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic 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	4	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>Melaleuca gibbosa</i>	Slender Honey-myrtle
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	<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 - Victorian Volcanic 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

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 652: Lunette Woodland

#### Description:

An open, eucalypt woodland to 15 m tall with a grassy and herb-rich understorey. Occupies on generally fertile, relatively well-drained, clay-loam soils on source-bordering lunettes.

#### 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
	<i>Eucalyptus melliodora</i>	Yellow Box

#### 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>	Knead Spear-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
MTG	<i>Tricoryne elatior</i>	Yellow Rush-lily
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass

#### Recruitment:

Continuous

#### Organic Litter:

10 % cover

#### Logs:

10 m/0.1 ha.

# EVC 652: Lunette Woodland - Victorian Volcanic 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

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic 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
Large Herb	2	10%	LH
Medium Herb	5	40%	MH
Small or Prostrate Herb	2	10%	SH
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	4	10%	MTG
Medium to Tiny Non-tufted Graminoid	2	10%	MNG
<b>Total understorey projective foliage cover</b>		<b>85%</b>	

LF Code	Species typical of at least part of EVC range	Common Name
LH	<i>Villarsia reniformis</i>	Running Marsh-flower
MH	<i>Myriophyllum simulans</i>	Amphibious Water-milfoil
MH	<i>Potamogeton tricarlinatus s.l.</i>	Floating Pondweed
MH	<i>Potamogeton pectinatus</i>	Fennel Pondweed
MH	<i>Marsilea drummondii</i>	Common Nardoo
SH	<i>Azolla filiculoides</i>	Pacific Azolla
SH	<i>Lobelia pratioides</i>	Poison Lobelia
SH	<i>Lemna disperma</i>	Duckweed
LNG	<i>Eleocharis sphacelata</i>	Tall Spike-sedge
MTG	<i>Triglochin procerum s.l.</i>	Water Ribbons
MTG	<i>Lachnagrostis filiformis</i>	Common Blown-grass
MTG	<i>Glyceria australis</i>	Australian Sweet-grass
MTG	<i>Austrodanthonia duttoniana</i>	Brown-back Wallaby-grass
MNG	<i>Eleocharis pusilla</i>	Small Spike-sedge
MNG	<i>Eleocharis acuta</i>	Common Spike-sedge

#### Recruitment:

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

#### Organic Litter:

10% cover

#### Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LH	<i>Aster subulatus</i>	Aster-weed	high	low
LH	<i>Rumex crispus</i>	Curled Dock	high	low
MH	<i>Plantago coronopus</i>	Buck's-horn Plantain	high	high
MH	<i>Cotula coronopifolia</i>	Water Buttons	high	high
MTG	<i>Lolium rigidum</i>	Wimmera Rye-grass	high	low
MTG	<i>Romulea rosea</i>	Onion Grass	high	low

# EVC 653: Aquatic Herbland - Victorian Volcanic Plain bioregion

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 654: Creekline Tussock Grassland

#### Description:

Creekline Tussock Grassland occurs along low gradient ephemeral and intermittent drainage lines across the volcanic plains. Soils are generally fertile heavy dark clays. Exposed basalt rocks can be common. Dominated by a dense sward of Common Tussock-grass *Poa labillardierei* primarily with small herbs and typically mat-forming grasses in the inter-tussock spaces. This EVC often includes small areas of sedgeland and/or wetland.

#### Life forms:

Life form	#Spp	%Cover	LF code
Large Herb	4	5%	LH
Medium Herb	8	10%	MH
Small or Prostrate Herb	11	10%	SH
Large Tufted Graminoid	3	40%	LTG
Medium to Small Tufted Graminoid	10	10%	MTG
Medium to Tiny Non-tufted Graminoid	4	10%	MNG
Bryophytes/Lichens	na	20%	BL

#### LF Code

#### Species typical of at least part of EVC range

#### Common Name

LH	<i>Senecio quadridentatus</i>	Cottony Fireweed
LH	<i>Senecio tenuiflorus</i>	Narrow-leaf Groundsel
LH	<i>Craspedia glauca</i> spp. agg.	Common Billy-buttons
MH	<i>Calocephalus lacteus</i>	Milky Beaty-heads
LH	<i>Brachyscome basaltica</i> var. <i>gracilis</i>	Woodland Swamp-daisy
MH	<i>Microseris</i> sp. 1	Yam Daisy
MH	<i>Haloragis heterophylla</i>	Varied Raspwort
SH	<i>Dichondra repens</i>	Kidneyweed
SH	<i>Hydrocotyle sibthorpioides</i>	Shining Pennywort
SH	<i>Lobelia pratioides</i>	Poison Lobelia
SH	<i>Crassula helmsii</i>	Swamp Crassula
LTG	<i>Poa labillardierei</i>	Common Tussock-grass
LTG	<i>Carex tereticaulis</i>	Rush Sedge
LTG	<i>Juncus kraussii</i> ssp. <i>australiensis</i>	Sea Rush
MTG	<i>Austrodanthonia duttoniana</i>	Brown-back Wallaby-grass
MTG	<i>Austrodanthonia caespitosa</i>	Common Wallaby-grass
MTG	<i>Lachnagrostis filiformis</i>	Common Blown-grass
MTG	<i>Juncus planifolius</i>	Broad-leaf Rush
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
MNG	<i>Distichlis distichophylla</i>	Australian Salt Grass
MNG	<i>Hemarthria uncinata</i> var. <i>uncinata</i>	Mat Grass
MNG	<i>Eleocharis acuta</i>	Common Spike-sedge

#### Recruitment:

Episodic – fire/grazing – desirable period of disturbance is every 10 years

#### Organic Litter:

10% Cover

# EVC 654: Creekline Tussock Grassland - Victorian Volcanic Plain bioregion

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LH	<i>Rumex crispus</i>	Curled Dock	high	low
MH	<i>Lotus suaveolens</i>	Hairy Bird's-foot Trefoil	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
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MTG	<i>Phalaris aquatica</i>	Toowoomba Canary-grass	high	high
MTG	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	high	high
MNG	<i>Paspalum distichum</i>	Water Couch	high	high
MNG	<i>Agrostis capillaris</i>	Brown-top Bent	high	high

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 655: Lignum Cane Grass Swamp

#### Description:

Shrubland to 2 m tall, typically very species-poor except on outer verges. May include species typical of more saline areas. Occurs in low rainfall areas (<500 mm per annum) in shallow (to 1 m deep) depressions, on very heavy grey clay soils, prone to turbidity when inundated (4-6 months) and extreme cracking when dry.

#### Life Forms:

Life form	#Spp	%Cover	LF code
Medium Shrub	1	25%	MS
Prostrate Shrub	2	10%	PS
Medium to Tiny Non-tufted Graminoid	3	40%	MNG
Soil Crust	na	10%	S/C
<b>Total understorey projective foliage cover</b>		<b>75%</b>	

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Muehlenbeckia florulenta</i>	Tangled Lignum
PS	<i>Wilsonia rotundifolia</i>	Round-leaf Wilsonia
MNG	<i>Eragrostis infecunda</i>	Southern Cane-grass
MNG	<i>Eleocharis acuta</i>	Common Spike-sedge
MNG	<i>Triglochin striatum</i>	Streaked Arrow-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 655: Lignum Cane Grass Swamp - Victorian Volcanic Plain bioregion

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 656: Brackish Wetland

#### Description:

Treeless EVC dominated by sedges and herbs that are generally indicative of saline conditions. True halophytic species such as samphires, if present, only occur with very low cover. Occurs in estuaries and along poorly defined drainage lines or associated with shorelines of brackish lakes.

#### Life Forms:

Life form	#Spp	%Cover	LF code
Large Herb	1	5%	LH
Medium Herb	3	15%	MH
Small or Prostrate Herb	3	10%	SH
Large Tufted Graminoid	1	10%	LTG
Large Non-tufted Graminoid	2	10%	LNG
Medium to Small Tufted Graminoid	2	5%	MTG
Medium to Tiny Non-tufted Graminoid	3	15%	MNG
Scrambler or Climber	1	1%	SC
Soil Crust	na	10%	S/C
<b>Total understorey projective foliage cover</b>		<b>80%</b>	

LF Code	Species typical of at least part of EVC range	Common Name
LH	<i>Persicaria decipiens</i>	Slender Knotweed
LH	<i>Epilobium billardierianum</i> ssp. <i>billardierianum</i>	Smooth Willow-herb
MH	<i>Sarcocornia quinqueflora</i>	Beaded Glasswort
MH	<i>Samolus repens</i>	Creeping Brookweed
MH	<i>Suaeda australis</i>	Austral Seablite
SH	<i>Selliera radicans</i>	Shiny Swamp-mat
SH	<i>Crassula helmsii</i>	Swamp Crassula
SH	<i>Mimulus repens</i>	Creeping Monkey-flower
LTG	<i>Gahnia filum</i>	Chaffy Saw-sedge
LNG	<i>Juncus kraussii</i> ssp. <i>australiensis</i>	Sea Rush
LNG	<i>Phragmites australis</i>	Common Reed
MTG	<i>Poa poiformis</i>	Coast Tussock-grass
MTG	<i>Lachnagrostis filiformis</i>	Common Blown-grass
MNG	<i>Bolboschoenus caldwellii</i>	Salt Club-sedge
MNG	<i>Distichlis distichophylla</i>	Australian Salt-grass
MNG	<i>Schoenoplectus pungens</i>	Sharp Club-sedge
MNG	<i>Triglochin striatum</i>	Streaked Arrowgrass
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 656: Brackish Wetland - Victorian Volcanic Plain bioregion

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic 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</i> spp.	70 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	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	na	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>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Ozothamnus ferrugineus</i>	Tree Everlasting
MS	<i>Coprosma quadrifida</i>	Prickly Currant-bush
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>Neopaxia australasica</i>	White Purslane
SH	<i>Lobelia pratioides</i>	Poison Lobelia
SH	<i>Hypericum japonicum</i>	Matted St John's Wort
LTG	<i>Juncus flavidus</i>	Gold Rush
LTG	<i>Amphibromus nervosus</i>	Common Swamp Wallaby-grass
LTG	<i>Poa labillardierei</i>	Common Tussock-grass
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

# EVC 705: Basalt Creekline Shrubby Woodland - Victorian Volcanic Plain bioregion

**Recruitment:**

Continuous

**Organic Litter:**

20 % cover

**Logs:**

20 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 s.l.</i>	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	high
MH	<i>Leontodon taraxacoides ssp. 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

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 710: Damp Heathland

#### Description:

Developed on sites of intermittent waterlogging, typically wet in winter and dry in summer, with low nutrient availability. Closed tall heathland, or scrub if long unburnt. There is a dense ground layer of rushes and sedges, and sometimes emergent eucalypts.

#### Life Forms:

Life form	#Spp	%Cover	LF code
Medium Shrub	6	30%	MS
Small Shrub	5	20%	SS
Prostrate Shrub	2	5%	PS
Medium Herb	6	10%	MH
Small or Prostrate Herb	2	1%	SH
Large Tufted Graminoid	1	5%	LTG
Large Non-tufted Graminoid	1	1%	LNG
Medium to Small Tufted Graminoid	4	15%	MTG
Medium to Tiny Non-tufted Graminoid	3	20%	MNG
Scrambler or Climber	2	5%	SC
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>Epacris impressa</i>	Common Heath
MS	<i>Banksia marginata</i>	Silver Banksia
MS	<i>Leptospermum myrsinoides</i>	Heath Tea-tree
SS	<i>Pultenaea stricta</i>	Rigid Bush-pea
SS	<i>Hibbertia fasciculata</i> var. <i>prostrata</i>	Bundled Guinea-flower
SS	<i>Dillwynia glaberrima</i>	Smooth Parrot-pea
SS	<i>Leucopogon glacialis</i>	Twisted Beard-heath
PS	<i>Xanthosia dissecta</i> s.l.	Cut-leaf Xanthosia
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Argentipallium obtusifolium</i>	Blunt Everlasting
MH	<i>Drosera peltata</i> ssp. <i>auriculata</i>	Tall Sundew
SH	<i>Drosera pygmaea</i>	Tiny Sundew
MTG	<i>Patersonia fragilis</i>	Short Purple-flag
MTG	<i>Schoenus apogon</i>	Common Bog-sedge
MNG	<i>Hypolaena fastigiata</i>	Tassel Rope-rush
MNG	<i>Leptocarpus tenax</i>	Slender Twine-rush
MNG	<i>Baumea juncea</i>	Bare Twig-sedge
SC	<i>Cassytha pubescens</i> s.s.	Downy Dodder-laurel
SC	<i>Cassytha glabella</i>	Slender 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 710: Damp Heathland - Victorian Volcanic Plain bioregion

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 793: Damp Heathy Woodland

#### Description:

Woodland to 10 m tall with tall dense heathy understorey which becomes tall scrub if long unburnt in high rainfall areas. The ground layer consists of grasses, herbs, small shrubs and tough-leaved monocots. Developed on sandy soils of moderate to low fertility, typically wet in winter due to impeding layer in soil and dry in summer.

#### Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	60 cm	10 / ha

#### Tree Canopy Cover:

%cover	Character Species	Common Name
10%	<i>Eucalyptus viminalis</i>	Manna Gum
	<i>Eucalyptus ovata</i>	Swamp Gum
	<i>Eucalyptus willisii</i>	Jimmy's Shining Peppermint

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Medium Shrub	6	40%	MS
Small Shrub	2	10%	SS
Prostrate Shrub	2	1%	PS
Large Herb	3	5%	LH
Medium Herb	6	10%	MH
Small or Prostrate Herb	4	5%	SH
Large Tufted Graminoid	3	5%	LTG
Large Non-tufted Graminoid	2	5%	LNG
Medium to Small Tufted Graminoid	11	20%	MTG
Medium to Tiny Non-tufted Graminoid	3	15%	MNG
Bryophytes/Lichens	na	10%	BL

#### LF Code

#### Species typical of at least part of EVC range

#### Common Name

MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Epacris impressa</i>	Common Heath
MS	<i>Acacia verticillata</i> ssp. <i>verticillata</i>	Prickly Moses
MS	<i>Allocasuarina paludosa</i>	Scrub Sheoak
SS	<i>Leucopogon virgatus</i>	Common Beard-heath
SS	<i>Hibbertia riparia</i>	Erect Guinea-flower
PS	<i>Astroloma humifusum</i>	Cranberry Heath
PS	<i>Bossiaea prostrata</i>	Creeping Bossiaea
MH	<i>Viola hederacea</i> sensu Willis (1972)	Ivy-leaf Violet
SH	<i>Opercularia varia</i>	Variable Stinkweed
SH	<i>Lobelia pratioides</i>	Poison Lobelia
SH	<i>Lobelia pedunculata</i> s.l.	Matted Pratia
SH	<i>Dichondra repens</i>	Kidney-weed
LTG	<i>Deyeuxia quadriseta</i>	Reed Bent-grass
LTG	<i>Xanthorrhoea minor</i> ssp. <i>lutea</i>	Small Grass-tree
LNG	<i>Lepidosperma longitudinale</i>	Pithy Sword-sedge
LNG	<i>Gahnia radula</i>	Thatch Saw-sedge
MTG	<i>Dianella tasmanica</i>	Tasman Flax-lily
MTG	<i>Schoenus apogon</i>	Common Bog-sedge
MTG	<i>Austrodanthonia racemosa</i> var. <i>racemosa</i>	Striped Wallaby-grass
MTG	<i>Lepidosperma laterale</i> var. <i>laterale</i>	Variable Sword-sedge
MNG	<i>Lepyrodia muelleri</i>	Common Scale-rush
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass

# EVC 793: Damp Heathy Woodland - Victorian Volcanic Plain bioregion

**Recruitment:**

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

**Organic Litter:**

20 % cover

**Logs:**

10 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>Centaurea erythraea</i>	Common Centaury	high	low
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MTG	<i>Briza minor</i>	Lesser Quaking-grass	high	low
MTG	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	high	high

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 803: Plains Woodland (*syn.* EVC 55 *Riverina* Plains Grassy Woodland)

#### Description:

Grassy or sedgy woodland to 15 m tall with large inter-tussock spaces potentially supporting a range of annual or geophytic herbs adapted to low summer rainfall, with low overall biomass. Mostly occurs on terrain of low relief in areas receiving <600 mm rainfall per annum. Fertile, sometimes seasonally waterlogged, mostly silty, loamy or clay topsoils, with heavy subsoils, derived largely from former Quaternary swamp deposits.

#### Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	70 cm	15 / ha
<i>Allocasuarina luehmannii</i>	40 cm	

#### Tree Canopy Cover:

%cover	Character Species	Common Name
15%	<i>Eucalyptus microcarpa</i>	Grey Box
	<i>Allocasuarina luehmannii</i>	Buloke
	<i>Eucalyptus melliodora</i>	Yellow Box
	<i>Eucalyptus leucoxylon</i>	Yellow Gum

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Medium Shrub	2	5%	MS
Small Shrub	2	5%	SS
Prostrate Shrub	1	1%	PS
Large Herb	1	1%	LH
Medium Herb	20	20%	MH
Small or Prostrate Herb	4	10%	SH
Large Tufted Graminoid	1	1%	LTG
Large Non-tufted Graminoid	1	1%	LNG
Medium to Small Tufted Graminoid	16	45%	MTG
Medium to Tiny Non-tufted Graminoid	3	5%	MNG
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C

#### Recruitment:

Continuous

#### Organic Litter:

10 % cover

#### Logs:

10 m/0.1 ha.

# EVC 803: Plains Woodland (*syn.* EVC 55 *Riverina* Plains Grassy Woodland) - Victorian Volcanic Plain bioregion

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Acacia pycnantha</i>	Golden Wattle
MS	<i>Acacia acinacea s.l.</i>	Gold-dust Wattle
SS	<i>Eutaxia microphylla</i> var. <i>microphylla</i>	Common Eutaxia
PS	<i>Astroloma humifusum</i>	Cranberry Heath
LH	<i>Senecio quadridentatus</i>	Cotton Fireweed
MH	<i>Acaena echinata</i>	Sheep's Burr
MH	<i>Plantago gaudichaudii</i>	Narrow Plantain
MH	<i>Maireana enchylaenoides</i>	Wingless Bluebush
MH	<i>Calocephalus citreus</i>	Lemon Beauty-heads
SH	<i>Solenogyne dominii</i>	Smooth Solenogyne
SH	<i>Oxalis perennans</i>	Grassland Wood-sorrel
SH	<i>Daucus glochidiatus</i>	Austral Carrot
SH	<i>Goodenia pinnatifida</i>	Cut-leaf Goodenia
LTG	<i>Austrostipa bigeniculata</i>	Kneed Spear-grass
MTG	<i>Austrostipa scabra</i>	Rough Spear-grass
MTG	<i>Austrodanthonia setacea</i>	Bristly Wallaby-grass
MTG	<i>Dianella revoluta s.s.</i>	Black-anther Flax-lily
MTG	<i>Austrodanthonia caespitosa</i>	Common Wallaby-grass
MNG	<i>Wurmbea dioica</i>	Common Early Nancy
TTG	<i>Centrolepis strigosa</i> ssp. <i>strigosa</i>	Hairy Centrolepis
TTG	<i>Centrolepis aristata</i>	Pointed Centrolepis
EP	<i>Amyema miquelii</i>	Box Mistletoe
SC	<i>Thysanotus patersonii</i>	Twining Fringe-lily
SC	<i>Convolvulus erubescens</i> spp. agg.	Pink Bindweed

## 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>Trifolium angustifolium</i> var. <i>angustifolium</i>	Narrow-leaf Clover	high	low
MH	<i>Hypochoeris glabra</i>	Smooth Cat's-ear	high	low
MH	<i>Arctotheca calendula</i>	Cape Weed	high	low
MH	<i>Petrorhagia velutina</i>	Velvety Pink	high	low
MH	<i>Trifolium dubium</i>	Suckling Clover	high	low
MH	<i>Anagallis arvensis</i>	Pimpernel	high	low
SH	<i>Trifolium glomeratum</i>	Cluster Clover	high	low
LNG	<i>Avena fatua</i>	Wild Oat	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
MTG	<i>Lolium rigidum</i>	Wimmera Rye-grass	high	low
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MNG	<i>Vulpia myuros</i>	Rat's-tail Fescue	high	low
MNG	<i>Juncus capitatus</i>	Capitate Rush	high	low
MNG	<i>Bromus rubens</i>	Red Brome	high	low

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 821: Tall Marsh

#### Description:

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. Occurs on Quaternary sedimentary geology of mainly estuarine sands, soils are peaty, silty clays, and average annual rainfall is approximately 600 mm. It requires shallow water (to 1 m deep) and low current-scour, and can only tolerate very low levels of salinity.

#### Life Forms:

Life form	#Spp	%Cover	LF code
Large Herb	3	10%	LH
Medium Herb	2	5%	MH
Small or Prostrate Herb	6	10%	SH
Large Tufted Graminoid	1	5%	LTG
Large Non-tufted Graminoid	2	40%	LNG
Medium to Tiny Non-tufted Graminoid	1	1%	MNG
<b>Total understorey projective foliage cover</b>		<b>70%</b>	

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>Lemna disperma</i>	Common Duckweed
SH	<i>Azolla filiculoides</i>	Pacific Azolla
SH	<i>Wolffia australiana</i>	Tiny Duckweed
SH	<i>Mimulus repens</i>	Creeping Monkey-flower
LTG	<i>Triglochin procerum s.l.</i>	Water Ribbons
LTG	<i>Juncus ingens</i>	Giant Rush
LNG	<i>Schoenoplectus tabernaemontani</i>	River Club-sedge
LNG	<i>Phragmites australis</i>	Common Reed
LNG	<i>Typha domingensis</i>	Cumbungi
LNG	<i>Typha orientalis</i>	Broad-leaf Cumbungi
MNG	<i>Lepilaena cylindrocarpa</i>	Long-fruit Water-mat
MNG	<i>Eleocharis acuta</i>	Common Spike-sedge

#### Recruitment:

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

#### Organic Litter:

10% cover

#### 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 - Victorian Volcanic Plain bioregion

Published by the Victorian Government Department of Sustainability and Environment November 2007

© The State of Victoria Department of Sustainability and Environment 2007

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 851: Stream Bank Shrubland

#### Description:

Tall shrubland to 8 m tall above a ground layer of sedges and herbs. A sparse eucalypt overstorey to 15 m tall may sometimes be present. Occurs along rivers and major streams where the watercourse consists of either rocky banks, a flat rocky stream bed or broad gravel banks which are often dry but are also regularly flooded by fast flowing waters.

+ eucalypt woodland only components (ignore when assessing shrublands and standardise site condition score as required)

#### Large trees<sup>+</sup>:

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

#### Tree Canopy Cover<sup>+</sup>:

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

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree <sup>+</sup>		5%	IT
Understorey Tree or Large Shrub	2	10%	T
Medium Shrub	4	20%	MS
Large Herb	3	5%	LH
Medium Herb	12	20%	MH
Small or Prostrate Herb	4	10%	SH
Large Tufted Graminoid	3	10%	LTG
Large Non-tufted Graminoid	3	10%	LNG
Medium to Small Tufted Graminoid	10	15%	MTG
Medium to Tiny Non-tufted Graminoid	5	10%	MNG
Scrambler or Climber	2	5%	SC

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia mearnsii</i>	Black Wattle
T	<i>Acacia melanoxylon</i>	Blackwood
MS	<i>Leptospermum lanigerum</i>	Woolly Tea-tree
MS	<i>Hymenanthera dentata</i> s.l.	Tree Violet
MS	<i>Bursaria spinosa</i> ssp. <i>spinosa</i>	Sweet Bursaria
MS	<i>Callistemon sieberi</i>	River Bottlebrush
LH	<i>Persicaria decipiens</i>	Slender Knotweed
LH	<i>Epilobium billardierianum</i>	Variable Willow-herb
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
MH	<i>Hydrocotyle verticillata</i>	Shield Pennywort
MH	<i>Oxalis perennans</i>	Grassland Wood-sorrel
SH	<i>Crassula helmsii</i>	Swamp Crassula
SH	<i>Dichondra repens</i>	Kidney-weed
SH	<i>Apium prostratum</i> ssp. <i>prostratum</i>	Sea Celery
SH	<i>Hydrocotyle verticillata</i>	Shield Pennywort
LTG	<i>Poa labillardierei</i>	Common Tussock-grass
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
LNG	<i>Phragmites australis</i>	Common Reed
LNG	<i>Schoenoplectus tabernaemontani</i>	River Club-sedge
MTG	<i>Triglochin procerum</i> s.l.	Water Ribbons
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
MNG	<i>Ficinia nodosa</i>	Knobby Club-sedge
SC	<i>Calystegia sepium</i>	Large Bindweed

# EVC 851: Stream Bank Shrubland - Victorian Volcanic Plain bioregion

## Recruitment:

Continuous

## Organic Litter:

40 % cover

## Logs:

10 m/0.1 ha.

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
T	<i>Crataegus monogyna</i>	Hawthorn	high	high
MS	<i>Rosa rubiginosa</i>	Sweet Briar	high	high
MS	<i>Ulex europaeus</i>	Gorse	high	high
LH	<i>Plantago lanceolata</i>	Ribwort	high	low
LH	<i>Rumex crispus</i>	Curled Dock	high	low
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
LH	<i>Rumex conglomeratus</i>	Clustered Dock	high	low
LH	<i>Sonchus asper</i> s.l.	Rough Sow-thistle	high	low
LH	<i>Helminthotheca echioides</i>	Ox-tongue	high	low
LH	<i>Aster subulatus</i>	Aster-weed	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Trifolium angustifolium</i> var. <i>angustifolium</i>	Narrow-leaf Clover	high	low
MH	<i>Trifolium dubium</i>	Suckling Clover	high	low
MH	<i>Plantago major</i>	Greater Plantain	high	low
SH	<i>Trifolium repens</i> var. <i>repens</i>	White Clover	high	low
LTG	<i>Phalaris aquatica</i>	Toowoomba Canary-grass	high	high
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MTG	<i>Bromus hordeaceus</i> ssp. <i>hordeaceus</i>	Soft Brome	high	low
MTG	<i>Nassella neesiana</i>	Chilean Needle-grass	high	high
MTG	<i>Bromus diandrus</i>	Great Brome	high	low
MTG	<i>Lolium perenne</i>	Perennial Rye-grass	high	low
MTG	<i>Romulea rosea</i>	Onion Grass	high	low
MTG	<i>Bromus catharticus</i>	Prairie Grass	high	low
MTG	<i>Briza maxima</i>	Large Quaking-grass	high	low
MTG	<i>Briza minor</i>	Lesser Quaking-grass	high	low
MNG	<i>Cynosurus echinatus</i>	Rough Dog's-tail	high	low
MNG	<i>Dactylis glomerata</i>	Cocksfoot	high	high
MNG	<i>Avena barbata</i>	Bearded Oat	high	low
MNG	<i>Paspalum distichum</i>	Water Couch	high	high
SC	<i>Galium aparine</i>	Cleavers	high	low
SC	<i>Vicia sativa</i> ssp. <i>sativa</i>	Common Vetch	high	low

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)

## EVC/Bioregion Benchmark for Vegetation Quality Assessment

### Victorian Volcanic Plain Bioregion

#### EVC 851\_61: Treed Stream Bank Shrubland

##### Description:

Tall shrubland to 8 m tall above a ground layer of sedges and herbs. A sparse eucalypt overstorey to 15 m tall is present. Occurs along rivers and major streams where the watercourse consists of either rocky banks, a flat rocky stream bed or broad gravel banks which are often dry but are also regularly flooded by fast flowing waters.

##### 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 camaldulensis</i>	River Red-gum

##### Understorey:

Lifeform	#Spp	%Cover	LF Code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	2	10%	T
Medium Shrub	4	20%	MS
Large Herb	3	5%	LH
Medium Herb	12	20%	MH
Small or Prostrate Herb	4	10%	SH
Large Tufted Graminoid	3	10%	LTG
Large Non-Tufted Graminoid	3	10%	LNG
Medium to Small Tufted Graminoid	10	15%	MTG
Medium to Tiny Non-Tufted Graminoid	5	10%	MNG
Scrambler or Climber	2	5%	SC

# EVC 851\_61: Treed Stream Bank Shrubland

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia mearnsii</i>	Black Wattle
T	<i>Acacia melanoxylon</i>	Blackwood
MS	<i>Bursaria spinosa</i> subsp. <i>spinosa</i>	Sweet Bursaria
MS	<i>Callistemon sieberi</i>	River Bottlebrush
MS	<i>Leptospermum lanigerum</i>	Woolly Tea-tree
MS	<i>Melicytus dentatus</i> s.l.	Tree Violet
LH	<i>Epilobium billardierianum</i>	Variable Willow-herb
LH	<i>Persicaria decipiens</i>	Slender Knotweed
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
MH	<i>Hydrocotyle verticillata</i>	Shield Pennywort
MH	<i>Oxalis perennans</i>	Grassland Wood-sorrel
SH	<i>Apium prostratum</i> subsp. <i>prostratum</i>	Sea Celery
SH	<i>Crassula helmsii</i>	Swamp Crassula
SH	<i>Dichondra repens</i>	Kidney-weed
SH	<i>Hydrocotyle verticillata</i>	Shield Pennywort
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
LTG	<i>Poa labillardierei</i>	Common Tussock-grass
LNG	<i>Phragmites australis</i>	Common Reed
LNG	<i>Schoenoplectus tabernaemontani</i>	River Club-sedge
MTG	<i>Triglochin procera</i> s.l.	Water Ribbons
MNG	<i>Ficinia nodosa</i>	Knobby Club-sedge
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
SC	<i>Calystegia sepium</i> subsp. <i>roseata</i>	Large Bindweed

## Recruitment:

Continuous.

## Organic Litter:

40 % cover

## Logs:

10 m/0.1ha.

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LTG	<i>Phalaris aquatica</i>	Toowoomba Canary-grass	high	high
T	<i>Crataegus monogyna</i>	Hawthorn	high	high
MS	<i>Ulex europaeus</i>	Gorse	high	high
MTG	<i>Nassella neesiana</i>	Chilean Needle-grass	high	high
MNG	<i>Paspalum distichum</i>	Water Couch	high	high
MNG	<i>Dactylis glomerata</i>	Cocksfoot	high	high
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MS	<i>Rosa rubiginosa</i>	Sweet Briar	high	high
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MTG	<i>Bromus hordeaceus</i> subsp. <i>hordeaceus</i>	Soft Brome	high	low
MTG	<i>Bromus diandrus</i>	Great Brome	high	low
MTG	<i>Lolium perenne</i>	Perennial Rye-grass	high	low
MTG	<i>Romulea rosea</i>	Onion Grass	high	low
MTG	<i>Briza maxima</i>	Large Quaking-grass	high	low
SH	<i>Trifolium repens</i> var. <i>repens</i>	White Clover	high	low
MH	<i>Plantago major</i>	Greater Plantain	high	low
MH	<i>Trifolium dubium</i>	Suckling Clover	high	low
MH	<i>Trifolium angustifolium</i> var. <i>angustifolium</i>	Narrow-leaf Clover	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
LH	<i>Aster subulatus</i>	Aster-weed	high	low
LH	<i>Helminthotheca echioides</i>	Ox-tongue	high	low



# EVC 851\_61: Treed Stream Bank Shrubland

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MNG	<i>Cynosurus echinatus</i>	Rough Dog's-tail	high	low
MNG	<i>Avena barbata</i>	Bearded Oat	high	low
LH	<i>Rumex conglomeratus</i>	Clustered Dock	high	low
SC	<i>Galium aparine</i>	Cleavers	high	low
MTG	<i>Bromus catharticus</i>	Prairie Grass	high	low
LH	<i>Plantago lanceolata</i>	Ribwort	high	low
LH	<i>Rumex crispus</i>	Curled Dock	high	low
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
MTG	<i>Briza minor</i>	Lesser Quaking-grass	high	low
LH	<i>Sonchus asper s.l.</i>	Rough Sow-thistle	high	low
SC	<i>Vicia sativa subsp. sativa</i>	Common Vetch	high	low

Published by the Victorian Government Department of Sustainability and Environment  
© The State of Victoria Government Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be directed to the Nominated Officer, Copyright, 8 Nicholson St, East Melbourne, Victoria 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss, or other consequences which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 858: Coastal Alkaline Scrub

#### Description:

Near-coastal, deep calcareous (alkaline) and largely stable sand dunes and swales commonly dominated by Moonah *Melaleuca lanceolata* ssp. *lanceolata*. It occurs at low elevations of 20-60 m above sea level, average annual rainfall is approximately 550-950 mm, and it occurs on a variety of geologies and soil types. Low woodland or tall shrubland to 8 m tall, typically with a medium shrub layer, small shrub layer and sedges, grasses and herbs in the ground layer.

#### Tree Canopy Cover:

%cover	Character Species	Common Name
30%	<i>Melaleuca lanceolata</i> ssp. <i>lanceolata</i>	Moonah
	<i>Allocasuarina verticillata</i>	Drooping Sheoak
	<i>Leptospermum laevigatum</i>	Coast Tea-tree
	<i>Bursaria spinosa</i> ssp. <i>spinosa</i>	Sweet Bursaria

#### Understorey:

Life form	#Spp	%Cover	LF code
Medium Shrub	3	20%	MS
Small Shrub	1	1%	SS
Prostrate Shrub	1	5%	PS
Large Herb	2	1%	LH
Medium Herb	5	10%	MH
Small or Prostrate Herb	2	5%	SH
Large Tufted Graminoid	1	5%	LTG
Medium to Small Tufted Graminoid	4	10%	MTG
Medium to Tiny Non-tufted Graminoid	1	5%	MNG
Scrambler or Climber	2	1%	SC
Bryophytes/Lichens	na	20%	BL
<b>Total understorey projective foliage cover</b>		<b>85%</b>	

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Acacia longifolia</i> ssp. <i>sophorae</i>	Coast Wattle
MS	<i>Leucopogon parviflorus</i>	Coast Beard-heath
MS	<i>Acacia retinodes</i> var. <i>uncifolia</i>	Coast Wirilda
SS	<i>Hibbertia sericea</i> s.l.	Silky Guinea-flower
PS	<i>Acrotriche prostrata</i>	Trailing Ground-berry
MH	<i>Lagenophora stipitata</i>	Common Bottle-daisy
MH	<i>Geranium potentilloides</i>	Cinquefoil Cranesbill
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
SH	<i>Dichondra repens</i>	Kidney-weed
SH	<i>Oxalis exilis</i>	Shady Wood-sorrel
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
MTG	<i>Dianella revoluta</i> s.l.	Black-anther Flax-lily
MTG	<i>Carex breviculmis</i>	Common Grass-sedge
MTG	<i>Elymus scaber</i> var. <i>scaber</i>	Common Wheat-grass
MTG	<i>Austrodanthonia setacea</i>	Bristly Wallaby-grass
MNG	<i>Ficinia nodosa</i>	Knobby Club-sedge
SC	<i>Clematis microphylla</i>	Small-leaved Clematis
SC	<i>Comesperma volubile</i>	Love Creeper

# EVC 858: Coastal Alkaline Scrub – Victorian Volcanic Plain bioregion

**Recruitment:**

Continuous

**Organic Litter:**

40 % cover

**Logs:**

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

**Weediness:**

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MS	<i>Rhamnus alaternus</i>	Italian Buckthorn	low	high
MS	<i>Chrysanthemoides monilifera</i>	Boneseed	high	high
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MTG	<i>Catapodium rigidum</i>	Fern Grass	high	low
MNG	<i>Lagurus ovatus</i>	Hare's-tail Grass	high	low
MNG	<i>Vulpia</i> spp.	Fescue	high	low

Published by the Victorian Government Department of Sustainability and Environment November 2007

© The State of Victoria Department of Sustainability and Environment 2007

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic 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.	40 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 - Victorian Volcanic 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

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 895: Escarpment Shrubland

#### Description:

Occurs on rocky escarpments in steep valleys or gorges, associated with limestone or basalt. Sites have moderate to high fertility, are well-drained but subject to regular summer drought due to shallow soils. Eucalypt woodland to 15 m tall or non-eucalypt shrubland to 8 m tall, with occasional eucalypts; lichen-covered rock outcrops are common.

+ eucalypt woodland only components (ignore when assessing shrubland areas and standardise site condition score as required)

#### Large trees<sup>+</sup>:

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

#### Tree Canopy Cover:

%cover	Character Species	Common Name
15%	<i>Acacia implexa</i>	Lightwood
	<i>Allocasuarina verticillata</i>	Drooping Sheoak
	<i>Acacia mearnsii</i>	Black Wattle
	<i>Bursaria spinosa</i>	Sweet Bursaria
	<i>Eucalyptus viminalis</i> ssp. <i>viminalis</i>	Manna Gum

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree <sup>+</sup>		5%	IT
Understorey Tree or Large Shrub <sup>+</sup>	3	10%	T
Medium Shrub	3	10%	MS
Small Shrub	2	5%	SS
Large Herb	3	5%	LH
Medium Herb	4	10%	MH
Small or Prostrate Herb	5	5%	SH
Large Tufted Graminoid	1	5%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	9	25%	MTG
Medium to Tiny Non-tufted Graminoid	3	5%	MNG
Ground Fern	1	5%	GF
Scrambler or Climber	1	5%	SC
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>Rhagodia parabolica</i>	Fragrant Saltbush
MS	<i>Hymenanthera dentata</i> s.l.	Tree Violet
SS	<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>	Ruby Saltbush
LH	<i>Wahlenbergia communis</i> s.l.	Tufted Bluebell
MH	<i>Oxalis perennans</i>	Grassland Wood-sorrel
MH	<i>Maireana enchylaenoides</i>	Wingless Bluebush
MH	<i>Einadia nutans</i> ssp. <i>nutans</i>	Nodding Saltbush
SH	<i>Chamaesyce drummondii</i>	Flat Spurge
SH	<i>Dichondra repens</i>	Kidney-weed
LTG	<i>Austrostipa bigeniculata</i>	Knead Spear-grass
MTG	<i>Austrodanthonia racemosa</i> var. <i>racemosa</i>	Stiped Wallaby-grass
MTG	<i>Austrodanthonia setacea</i>	Bristly Wallaby-grass
MNG	<i>Panicum effusum</i>	Hairy Panic
GF	<i>Cheilanthes distans</i>	Bristly Cloak-fern
SC	<i>Clematis microphylla</i>	Small-leaved Clematis
SC	<i>Convolvulus erubescens</i> spp. agg.	Pink Bindweed

# EVC 895: Escarpment Shrubland - Victorian Volcanic Plain bioregion

## Recruitment:

Continuous

## Organic Litter:

20 % cover

## Logs:

15 m/0.1 ha<sup>+</sup>.

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

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
T	<i>Schinus molle</i>	Pepper Tree	high	high
MS	<i>Lycium ferocissimum</i>	African Box-thorn	high	high
MS	<i>Genista monspessulana</i>	Montpellier Broom	high	high
SS	<i>Marrubium vulgare</i>	Horehound	high	high
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
LH	<i>Helminthotheca echinoides</i>	Ox-tongue	high	high
LH	<i>Lactuca serriola</i>	Prickly Lettuce	high	low
LH	<i>Sisymbrium officinale</i>	Hedge Mustard	high	high
LH	<i>Sonchus asper</i> s.l.	Rough Sow-thistle	high	low
LH	<i>Verbascum thapsus</i> ssp. <i>thapsus</i>	Great Mullein	high	high
LH	<i>Echium plantagineum</i>	Paterson's Curse	high	high
LH	<i>Centaureum tenuiflorum</i>	Slender Centaury	high	low
LH	<i>Foeniculum vulgare</i>	Fennel	high	high
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Trifolium arvense</i> var. <i>arvense</i>	Hare's-foot Clover	high	low
MH	<i>Trifolium subterraneum</i>	Subterranean Clover	high	low
MH	<i>Trifolium campestre</i> var. <i>campestre</i>	Hop Clover	high	low
MH	<i>Trifolium angustifolium</i> var. <i>angustifolium</i>	Narrow-leaf Clover	high	low
MH	<i>Lotus suaveolens</i>	Hairy Bird's-foot Trefoil	high	low
MH	<i>Cerastium glomeratum</i> s.l.	Common Mouse-ear Chickweed	high	low
SH	<i>Medicago polymorpha</i>	Burr Medic	high	low
SH	<i>Trifolium glomeratum</i>	Cluster Clover	high	low
SH	<i>Modiola caroliniana</i>	Red-flower Mallow	high	low
SH	<i>Aptenia cordifolia</i>	Heart-leaf Ice-plant	high	high
LTG	<i>Phalaris aquatica</i>	Toowoomba Canary-grass	high	high
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
LNG	<i>Avena fatua</i>	Wild Oat	high	low
MTG	<i>Nassella trichotoma</i>	Serrated Tussock	high	high
MTG	<i>Ehrharta longiflora</i>	Annual Veldt-grass	high	low
MTG	<i>Briza maxima</i>	Large Quaking-grass	high	low
MTG	<i>Bromus hordeaceus</i> ssp. <i>hordeaceus</i>	Soft Brome	high	low
MTG	<i>Sporobolus africanus</i>	Rat-tail Grass	high	high
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MTG	<i>Romulea rosea</i>	Onion Grass	high	low
MTG	<i>Pentstemon airoides</i> ssp. <i>airoides</i>	False Hair-grass	high	low
MTG	<i>Lolium perenne</i>	Perennial Rye-grass	high	high
MTG	<i>Dactylis glomerata</i>	Cocksfoot	high	high
MTG	<i>Vulpia myuros</i>	Rat's-tail Fescue	high	low
MTG	<i>Bromus rubens</i>	Red Brome	high	low
MTG	<i>Avena barbata</i>	Bearded Oat	high	low
MTG	<i>Aira caryophylla</i>	Silvery Hair-grass	high	low
SC	<i>Vicia sativa</i> ssp. <i>sativa</i>	Common Vetch	high	low

Published by the Victorian Government Department of Sustainability and Environment January 2005

© The State of Victoria Department of Sustainability and Environment 2005

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)

## EVC/Bioregion Benchmark for Vegetation Quality Assessment

### Victorian Volcanic Plain Bioregion

#### EVC 895\_61: Treed Escarpment Shrubland

##### Description:

Occurs on rocky escarpments in steep valleys or gorges, associated with limestone or basalt. Sites have moderate to high fertility, are well-drained but subject to regular summer drought due to shallow soils. Eucalypt woodland to 15 m tall or non-eucalypt shrubland to 8 m tall, with occasional eucalypts; lichen-covered rock outcrops are common.

##### Large Trees:

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

##### Tree Canopy Cover:

%cover	Character Species	Common Name
15%	<i>Acacia implexa</i>	Lightwood
	<i>Acacia mearnsii</i>	Black Wattle
	<i>Allocasuarina verticillata</i>	
	<i>Bursaria spinosa</i>	Sweet Bursaria
	<i>Eucalyptus viminalis subsp. viminalis</i>	Manna Gum

##### Understorey:

Lifeform	#Spp	%Cover	LF Code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	3	10%	T
Medium Shrub	3	10%	MS
Small Shrub	2	5%	SS
Large Herb	3	5%	LH
Medium Herb	4	10%	MH
Small or Prostrate Herb	5	5%	SH
Large Tufted Graminoid	1	5%	LTG
Large Non-Tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	9	25%	MTG
Medium to Tiny Non-Tufted Graminoid	3	5%	MNG
Ground Fern	1	5%	GF
Scrambler or Climber	1	5%	SC
Bryophytes/Lichens		10%	BL
Soil Crust		10%	S/C

# EVC 895\_61: Treed Escarpment Shrubland

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Various spp.</i>	
MS	<i>Melicytus dentatus s.l.</i>	Tree Violet
MS	<i>Rhagodia parabolica</i>	Fragrant Saltbush
SS	<i>Enchylaena tomentosa var. tomentosa</i>	Ruby Saltbush
LH	<i>Wahlenbergia communis s.l.</i>	Tufted Bluebell
MH	<i>Einadia nutans subsp. nutans</i>	Nodding Saltbush
MH	<i>Maireana enchylaenoides</i>	Wingless Bluebush
MH	<i>Oxalis perennans</i>	Grassland Wood-sorrel
SH	<i>Chamaesyce drummondii</i>	Flat Spurge
SH	<i>Dichondra repens</i>	Kidney-weed
LTG	<i>Austrostipa bigeniculata</i>	Kneed Spear-grass
LNG	<i>Various spp.</i>	
MTG	<i>Austrodanthonia racemosa var. racemosa</i>	Stiped Wallaby-grass
MTG	<i>Austrodanthonia setacea</i>	Bristly Wallaby-grass
MNG	<i>Panicum effusum</i>	Hairy Panic
GF	<i>Cheilanthes distans</i>	Bristly Cloak-fern
SC	<i>Clematis microphylla</i>	Small-leaved Clematis
SC	<i>Convolvulus erubescens spp. agg.</i>	Pink Bindweed

## Recruitment:

Continuous.

## Organic Litter:

20 % cover

## Logs:

15 m/0.1ha.

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LH	<i>Sisymbrium officinale</i>	Hedge Mustard	high	high
SS	<i>Marrubium vulgare</i>	Horehound	high	high
MTG	<i>Sporobolus africanus</i>	Rat-tail Grass	high	high
SH	<i>Aptenia cordifolia</i>	Heart-leaf Ice-plant	high	high
LH	<i>Verbascum thapsus subsp. thapsus</i>	Great Mullein	high	high
MS	<i>Genista monspessulana</i>	Montpellier Broom	high	high
MTG	<i>Lolium perenne</i>	Perennial Rye-grass	high	high
LH	<i>Helminthotheca echinoides</i>	Ox-tongue	high	high
T	<i>Schinus molle</i>	Pepper Tree	high	high
MH	<i>Foeniculum vulgare</i>	Fennel	high	high
MTG	<i>Nassella trichotoma</i>	Serrated Tussock	high	high
LTG	<i>Phalaris aquatica</i>	Toowoomba Canary-grass	high	high
LH	<i>Echium plantagineum</i>	Paterson's Curse	high	high
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MS	<i>Lycium ferocissimum</i>	African Box-thorn	high	high
MNG	<i>Dactylis glomerata</i>	Cocksfoot	high	high
MNG	<i>Bromus rubens</i>	Red Brome	high	low
LH	<i>Centaureum tenuiflorum</i>	Slender Centaury	high	low
LNG	<i>Avena fatua</i>	Wild Oat	high	low
MNG	<i>Avena barbata</i>	Bearded Oat	high	low
MH	<i>Trifolium arvense var. arvense</i>	Hare's-foot Clover	high	low
LH	<i>Lactuca serriola</i>	Prickly Lettuce	high	low
MNG	<i>Aira caryophylla</i>	Silvery Hair-grass	high	low
SC	<i>Vicia sativa subsp. sativa</i>	Common Vetch	high	low
SH	<i>Modiola caroliniana</i>	Red-flower Mallow	high	low
MH	<i>Trifolium angustifolium var. angustifolium</i>	Narrow-leaf Clover	high	low
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low



# EVC 895\_61: Treed Escarpment Shrubland

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MNG	<i>Vulpia myuros</i>	Rat's-tail Fescue	high	low
MTG	<i>Romulea rosea</i>	Onion Grass	high	low
MTG	<i>Pentstemon airoides subsp. airoides</i>	False Hair-grass	high	low
SH	<i>Trifolium glomeratum</i>	Cluster Clover	high	low
SH	<i>Medicago polymorpha</i>	Burr Medic	high	low
MH	<i>Cerastium glomeratum s.l.</i>	Common Mouse-ear Chickweed	high	low
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
MTG	<i>Ehrharta longiflora</i>	Annual Veldt-grass	high	low
MH	<i>Trifolium subterraneum</i>	Subterranean Clover	high	low
LH	<i>Sonchus asper s.l.</i>	Rough Sow-thistle	high	low
MTG	<i>Briza maxima</i>	Large Quaking-grass	high	low
MH	<i>Lotus subbiflorus</i>	Hairy Bird's-foot Trefoil	high	low
MTG	<i>Bromus hordeaceus subsp. hordeaceus</i>	Soft Brome	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Trifolium campestre var. campestre</i>	Hop Clover	high	low

Published by the Victorian Government Department of Sustainability and Environment  
© The State of Victoria Government Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be directed to the Nominated Officer, Copyright, 8 Nicholson St, East Melbourne, Victoria 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss, or other consequences which may arise from you relying on any information in this publication.

[www.dse.vic.gov.au](http://www.dse.vic.gov.au)



# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain bioregion

### EVC 914: Estuarine Flats Grassland

#### Description:

Closed to open grassland to 1.5 m tall with occasional shrubs occurring on estuarine flats often associated with current or old beach berms or sand sheets that are occasionally inundated by high tides. Occupies areas on marginally higher ground inland from Coastal Saltmarsh.

#### Life Forms:

Life form	#Spp	%Cover	LF code
Medium Shrub	2	5%	MS
Small Shrub	1	5%	SS
Large Herb	1	1%	LH
Medium Herb	3	15%	MH
Small Herb	4	15%	SH
Large Tufted Graminoid	2	15%	LTG
Medium to Small Tufted Graminoid	2	20%	MTG
Medium to Tiny Non-tufted Graminoid	3	15%	MNG
<b>Total understorey projective foliage cover</b>		<b>85%</b>	

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Atriplex cinerea</i>	Coast Saltbush
MS	<i>Rhagodia candolleana</i> ssp. <i>candolleana</i>	Seaberry Saltbush
SS	<i>Frankenia pauciflora</i> var. <i>gunnii</i>	Southern Sea-heath
LH	<i>Senecio pinnatifolius</i>	Variable Groundsel
MH	<i>Sarcocornia quinqueflora</i> ssp. <i>quinqueflora</i>	Beaded Glasswort
MH	<i>Suaeda australis</i>	Austral Seablite
MH	<i>Samolus repens</i>	Creeping Brookweed
SH	<i>Disphyma crassifolium</i> ssp. <i>clavellatum</i>	Rounded Noon-flower
SH	<i>Selliera radicans</i>	Shiny Swamp-mat
SH	<i>Hemichroa pentandra</i>	Trailing Hemichroa
LTG	<i>Austrostipa stipoides</i>	Prickly Spear-grass
LTG	<i>Gahnia filum</i>	Chaffy Saw-sedge
MTG	<i>Poa poiformis</i>	Coast Tussock-grass
MTG	<i>Lachnagrostis billardierei</i> ssp. <i>billardierei</i>	Coast Blown-grass
MNG	<i>Spinifex sericeus</i>	Hairy Spinifex
MNG	<i>Distichlis distichophylla</i>	Australian Salt-grass
MNG	<i>Ficinia nodosa</i>	Knobby Club-sedge

#### Recruitment:

Continuous

#### Organic Litter:

10% Cover

#### Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MS	<i>Chrysanthemoides monilifera</i> ssp. <i>monilifera</i>	Boneseed	high	high
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low
LH	<i>Conyza albida</i>	Tall Fleabane	high	low
MH	<i>Polycarpon tetraphyllum</i>	Four-leaved Allseed	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Anagallis arvensis</i>	Pimpernel	high	low
MNG	<i>Vulpia myuros</i>	Rat's-tail Fescue	high	low
MNG	<i>Lagurus ovatus</i>	Hare's-tail Grass	high	low

# EVC 914: Estuarine Flats Grassland - Victorian Volcanic Plain bioregion

Published by the Victorian Government Department of Sustainability and Environment May 2004

© The State of Victoria Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or at cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the *Copyright Act 1968*) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Victorian Volcanic Plain Bioregion

### EVC 934: Brackish Grassland

#### Description:

Grassland or sedgeland occurring on silts in low-lying areas within brackish floodplains. Often occurs in association with Brackish Wetland.

#### Understorey:

Lifeform	#Spp	%Cover	LF Code
Large Herb	1	1%	LH
Medium Herb	3	5%	MH
Small or Prostrate Herb	5	5%	SH
Large Tufted Graminoid	2	20%	LTG
Medium to Small Tufted Graminoid	4	20%	MTG
Medium to Tiny Non-Tufted Graminoid	1	10%	MNG
Bryophytes/Lichens		10%	BL

LF Code	Species typical of at least part of EVC range	Common Name
LH	<i>Senecio glomeratus</i>	Annual Fireweed
MH	<i>Calocephalus lacteus</i>	Milky Beauty-heads
MH	<i>Samolus repens</i>	Creeping Brookweed
MH	<i>Sarcocornia quinqueflora</i>	Beaded Glasswort
MH	<i>Sebaea albidiflora</i>	White Sebaea
SH	<i>Selliera radicans</i>	Shiny Swamp-mat
SH	<i>Utricularia tenella</i>	Pink Bladderwort
LTG	<i>Gahnia filum</i>	Chaffy Saw-sedge
LTG	<i>Gahnia trifida</i>	Coast Saw-sedge
LTG	<i>Poa labillardierei</i>	Common Tussock-grass
MTG	<i>Austrodanthonia geniculata</i>	Knead Wallaby-grass
MTG	<i>Poa poiiformis</i>	Coast Tussock-grass
MTG	<i>Schoenus apogon</i>	Common Bog-sedge
MNG	<i>Distichlis distichophylla</i>	Australian Salt-grass

#### Recruitment:

Continuous.

#### Organic Litter:

10 % cover

**Weediness:** There are no consistent weeds in this EVC



# EVC 934: Brackish Grassland

Published by the Victorian Government Department of Sustainability and Environment  
© The State of Victoria Government Department of Sustainability and Environment 2004

This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial is authorised, on condition that:

- the copyright owner is acknowledged;
- no official connection is claimed;
- the material is made available without charge or cost; and
- the material is not subject to inaccurate, misleading or derogatory treatment.

Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be directed to the Nominated Officer, Copyright, 8 Nicholson St, East Melbourne, Victoria 3002.

For more information contact: Customer Service Centre, 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss, or other consequences which may arise from you relying on any information in this publication.

**[www.dse.vic.gov.au](http://www.dse.vic.gov.au)**