

# EVC/Bioregion Benchmark for Vegetation Quality Assessment

## Highlands – Northern Fall 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 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	1	10%	T
Medium Shrub	3	10%	MS
Small Shrub	3	5%	SS
Medium Herb	12	20%	MH
Small or Prostrate Herb	7	15%	SH
Large Tufted Graminoid	1	10%	LTG
Medium to Small Tufted Graminoid	10	15%	MTG
Medium to Tiny Non-tufted Graminoid	2	10%	MNG
Ground Fern	1	10%	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>Bursaria spinosa</i>	Sweet Bursaria
MS	<i>Acacia verticillata</i>	Prickly Moses
MS	<i>Ozothamnus ferrugineus</i>	Tree Everlasting
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
SS	<i>Pimelea humilis</i>	Common Rice-flower
SS	<i>Lissanthe strigosa</i> ssp. <i>subulata</i>	Peach Heath
SS	<i>Hibbertia riparia</i>	Erect Guinea-flower
MH	<i>Geranium solanderi</i>	Austral Cranesbill
MH	<i>Drosera peltata</i> ssp. <i>auriculata</i>	Tall Sundew
MH	<i>Hydrocotyle foveolata</i>	Yellow Pennywort
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
SH	<i>Drosera whittakeri</i> ssp. <i>aberrans</i>	Scented Sundew
SH	<i>Oxalis exilis</i>	Shady Wood-sorrel
SH	<i>Viola cleistogamoides</i>	Hidden Violet
SH	<i>Opercularia ovata</i>	Broad-leaf Stinkweed
LTG	<i>Austrostipa rudis</i> ssp. <i>nervosa</i>	Veined Spear-grass
LTG	<i>Juncus pallidus</i>	Pale Rush
MTG	<i>Poa sieberiana</i> var. <i>sieberiana</i>	Grey Tussock-grass
MTG	<i>Lomandra filiformis</i> ssp. <i>coriacea</i>	Wattle Mat-rush
MTG	<i>Austrodanthonia racemosa</i> var. <i>racemosa</i>	Stiped Wallaby-grass
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
GF	<i>Pteridium esculentum</i>	Austral Bracken

# EVC 3: Damp Sands Herb-rich Woodland Highlands – Northern Fall bioregion

**Recruitment:**

Continuous

**Organic Litter:**

40 % 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
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>Anthoxanthum odoratum</i>	Sweet Vernal-grass	high	high
MTG	<i>Juncus microcephalus</i>	Tiny-headed Rush	high	low
MTG	<i>Briza maxima</i>	Large Quaking-grass	high	low
MNG	<i>Aira caryophyllea</i>	Silvery 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

## Highlands – Northern Fall bioregion

### EVC 7: Clay Heathland

#### Description:

Occurs on sites with impeded drainage, often on duplex soils. Dominated by heathy shrub species with or without an eucalypt overstorey. The ground layer is dense and diverse with a variety of landforms.

+ 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.	40 cm	10 / ha

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

%cover	Character Species	Common Name
10%	<i>Eucalyptus dives</i>	Broad-leaved Peppermint
	<i>Eucalyptus macrorhyncha</i>	Red Stringybark
	<i>Eucalyptus mannifera</i>	Brittle Gum

#### Understorey:

Life form	#Spp	%Cover	LF code
Medium Shrub	9	30%	MS
Small Shrub	6	10%	SS
Prostrate Shrub	3	5%	PS
Large Herb	2	1%	LH
Medium Herb	8	10%	MH
Large Tufted Graminoid	4	10%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	7	10%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C
<b>Total understorey projective foliage cover</b>		<b>75%</b>	

# EVC 7: Clay Heathland Highlands - Northern Fall bioregion

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Epacris impressa</i>	Common Heath
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Banksia marginata</i>	Silver Banksia
MS	<i>Cassinia longifolia</i>	Shiny Cassinia
SS	<i>Kunzea parvifolia</i>	Violet Kunzea
SS	<i>Pimelea humilis</i>	Common Rice-flower
SS	<i>Gompholobium huegelii</i>	Common Wedge-pea
SS	<i>Dillwynia phyllioides</i>	Small-leaf Parrot-pea
PS	<i>Acrotriche serrulata</i>	Honey-pots
PS	<i>Bossiaea prostrata</i>	Creeping Bossiaea
PS	<i>Pultenaea procumbens</i>	Heathy Bush-pea
PS	<i>Boronia nana</i>	Dwarf Boronia
MH	<i>Lagenophora gracilis</i>	Slender Bottle-daisy
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Hypericum gramineum</i>	Small St John's Wort
MH	<i>Viola betonicifolia</i> ssp. <i>betonicifolia</i>	Showy Violet
SH	<i>Mitrasacme serpyllifolia</i>	Thyme Mitrewort
LTG	<i>Deyeuxia quadriseta</i>	Reed Bent-grass
LTG	<i>Xanthorrhoea minor</i> ssp. <i>lutea</i>	Small Grass-tree
LNG	<i>Gahnia radula</i>	Thatch Saw-sedge
MTG	<i>Schoenus apogon</i>	Common Bog-sedge
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
MTG	<i>Lepidosperma laterale</i>	Variable Sword-sedge
MTG	<i>Themeda triandra</i>	Kangaroo Grass
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
MNG	<i>Caustis flexuosa</i>	Curly Wig
MNG	<i>Echinopogon ovatus</i>	Common Hedgehog-grass

## Recruitment:

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

## Organic Litter:

20% Cover

## Weediness:

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

## Highlands – Northern Fall bioregion

### EVC 16: Lowland Forest

#### Description:

Eucalypt forest to 25 m tall on relatively fertile, moderately well-drained soils in areas of relatively high rainfall. Characterised by the diversity of life forms and species in the understorey including a range of shrubs, grasses and herbs.

#### Large trees:

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

#### Tree Canopy Cover:

%cover	Character Species	Common Name
30%	<i>Eucalyptus obliqua</i> <i>Eucalyptus radiata</i> s.l.	Messmate Stringybark 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	6	20%	MS
Small Shrub	3	5%	SS
Prostrate Shrub	1	5%	PS
Large Herb	1	1%	LH
Medium Herb	5	10%	MH
Small or Prostrate Herb	2	5%	SH
Large Tufted Graminoid	2	1%	LTG
Large Non-tufted Graminoid	1	10%	LNG
Medium to Small Tufted Graminoid	2	5%	MTG
Medium to Tiny Non-tufted Graminoid	1	5%	MNG
Ground Fern	2	5%	GF
Scrambler or Climber	1	1%	SC
Bryophytes/Lichens	na	10%	BL

# EVC 16: Lowland Forest Highlands – Northern Fall bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Pomaderris aspera</i>	Hazel Pomaderris
T	<i>Acacia dealbata</i>	Silver Wattle
MS	<i>Goodenia ovata</i>	Hop Goodenia
MS	<i>Acacia verticillata</i>	Prickly Moses
MS	<i>Pimelea axiflora</i>	Bootlace Bush
MS	<i>Olearia phlogopappa</i>	Dusty Daisy-bush
SS	<i>Tetratheca ciliata</i>	Pink-bells
SS	<i>Lomatia ilicifolia</i>	Holly Lomatia
SS	<i>Hovea heterophylla</i>	Common Hovea
SS	<i>Rubus parvifolius</i>	Small-leaf Bramble
MH	<i>Viola hederacea</i> sensu Willis (1972)	Ivy-leaf Violet
MH	<i>Lagenophora stipitata</i>	Common Bottle-daisy
MH	<i>Stackhousia monogyna</i>	Creamy Stackhousia
MH	<i>Geranium potentilloides</i>	Cinquefoil Cranesbill
SH	<i>Leptostigma reptans</i>	Dwarf Nertera
SH	<i>Oxalis exilis</i>	Shady Wood-sorrel
SH	<i>Asperula euryphylla</i> var. <i>euryphylla</i>	Broad-leaf Woodruff
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
LNG	<i>Tetrarrhena juncea</i>	Forest Wire-grass
MTG	<i>Poa ensiformis</i>	Sword Tussock-grass
MTG	<i>Dianella caerulea</i> var. <i>caerulea</i>	Paroo Lily
MTG	<i>Lepidosperma laterale</i>	Variable Sword-sedge
MNG	<i>Poa tenera</i>	Slender Tussock-grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Calochlaena dubia</i>	Common Ground-fern
GF	<i>Lindsaea linearis</i>	Screw Fern
SC	<i>Cassytha pubescens</i> s.s.	Downy Dodder-laurel
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

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

## Highlands – Northern Fall bioregion

### EVC 18: Riparian Forest

#### Description:

A forest to 30 m tall of river banks and associated alluvial terraces with occasional occurrences in the heads of gullies leading into creeks and rivers. The soil is 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	4	20%	T
Medium Shrub	7	15%	MS
Small Shrub	1	1%	SS
Large Herb	2	1%	LH
Medium Herb	10	15%	MH
Small or Prostrate Herb	3	1%	SH
Large Tufted Graminoid	4	5%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	3	5%	MTG
Medium to Tiny Non-tufted Graminoid	2	1%	MNG
Ground Fern	5	25%	GF
Tree Fern	2	10%	TRF
Scrambler or Climber	2	5%	SC
Bryophytes/Lichens	na	20%	BL

# EVC 18: Riparian Forest

## Highlands - Northern Fall Bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia melanoxylon</i>	Blackwood
T	<i>Pomaderris aspera</i>	Hazel Pomaderris
T	<i>Acacia dealbata</i>	Silver Wattle
MS	<i>Coprosma quadrifida</i>	Prickly Currant-bush
MS	<i>Cassinia aculeata</i>	Common Cassinia
MS	<i>Prostanthera lasianthos</i>	Victorian Christmas-bush
MS	<i>Olearia phlogopappa</i>	Dusty Daisy-bush
LH	<i>Mentha laxiflora</i>	Forest Mint
MH	<i>Viola hederacea sensu Willis (1972)</i>	Ivy-leaf Violet
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
MH	<i>Geranium potentilloides</i>	Cinquefoil Cranesbill
SH	<i>Hydrocotyle hirta</i>	Hairy Pennywort
SH	<i>Dichondra repens</i>	Kidney-weed
SH	<i>Galium propinquum</i>	Maori Bedstraw
LTG	<i>Carex appressa</i>	Tall Sedge
LTG	<i>Poa labillardierei</i>	Common Tussock-grass
LNG	<i>Tetrarrhena juncea</i>	Forest Wire-grass
MTG	<i>Dianella tasmanica</i>	Tasman Flax-lily
MNG	<i>Microlaena stipoides var. stipoides</i>	Weeping Grass
MNG	<i>Poa tenera</i>	Slender Tussock-grass
GF	<i>Blechnum nudum</i>	Fishbone Water-fern
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Polystichum proliferum</i>	Mother Shield-fern
GF	<i>Adiantum aethiopicum</i>	Common Maidenhair
TRF	<i>Dicksonia antarctica</i>	Soft Tree-fern
TRF	<i>Cyathea australis</i>	Rough Tree-fern
SC	<i>Clematis aristata</i>	Mountain Clematis

**Recruitment:**  
Continuous

**Organic Litter:**  
40 % cover

**Logs:**  
30 m/0.1 ha.

<b>Weediness:</b>				
LF Code	Typical Weed Species	Common Name	Invasive	Impact
MS	<i>Rubus fruticosus spp. agg.</i>	Blackberry	high	high
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Prunella vulgaris</i>	Self-heal	high	high

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

## Highlands – Northern Fall bioregion

### EVC 19: Riparian Shrubland

#### Description:

Diverse, medium to tall shrubland to 8 m tall occurring on rocky substrates of major streams and banks and channels of rocky creeks and along perennial streams in gorge tracts. Able to withstand frequent flooding or regenerate rapidly after such disturbance and often forming dense thickets along the stream's edge during long periods without flooding. Trees may be irregularly scattered throughout but tend to be restricted to the banks of the rivers and creeks. Sedges and rushes common to riparian environments dominate the understorey as well as an array of herbs and grasses including many ephemeral species which survive on the bare sands or in rock crevice.

#### Canopy Cover:

%cover	Character Species	Common Name
40%	<i>Acacia melanoxylon</i>	Blackwood
	<i>Leptospermum grandifolium</i>	Mountain Tea-tree

#### Understorey:

Life form	#Spp	%Cover	LF code
Medium Shrub	9	20%	MS
Medium Herb	2	5%	MH
Large Tufted Graminoid	1	10%	LTG
Medium to Small Tufted Graminoid	4	5%	MTG
Medium to Tiny Non-tufted Graminoid	1	1%	MNG
Ground Fern	4	10%	GF
Tree Fern	2	1%	TRF
Scrambler or Climber	2	5%	SC
Bryophytes/Lichens	na	20%	BL
<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>Coprosma quadrifida</i>	Prickly Currant-bush
MS	<i>Hedycarya angustifolia</i>	Austral Mulberry
MS	<i>Kunzea ericoides</i>	Burgan
MS	<i>Micrantheum hexandrum</i>	Box Micrantheum
MH	<i>Euchiton collinus s.l.</i>	Clustered/Creeping Cudweed
LTG	<i>Carex appressa</i>	Tall Sedge
MTG	<i>Lepidosperma laterale</i>	Variable Sword-sedge
MTG	<i>Poa ensiformis</i>	Sword Tussock-grass
MTG	<i>Dianella tasmanica</i>	Tasman Flax-lily
MNG	<i>Microlaena stipoides var. stipoides</i>	Weeping Grass
GF	<i>Calochlaena dubia</i>	Common Ground-fern
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Polystichum proliferum</i>	Mother Shield-fern
GF	<i>Blechnum minus</i>	Soft Water-fern
TRF	<i>Todea barbara</i>	Austral King-fern
TRF	<i>Dicksonia antarctica</i>	Soft Tree-fern
SC	<i>Pandorea pandorana</i>	Wonga Vine

#### Recruitment:

Continuous

#### Organic Litter:

40 % cover

#### Logs:

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

#### Weediness:

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

# EVC 19: Riparian Shrubland Highlands – Northern Fall 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

## Highlands – Northern Fall 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 and grasses 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 dives</i>	Broad-leaved Peppermint
	<i>Eucalyptus mannifera</i> ssp. <i>mannifera</i>	Brittle Gum
	<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	1	5%	T
Medium Shrub	8	20%	MS
Small Shrub	4	10%	SS
Prostrate Shrub	2	5%	PS
Large Herb	2	1%	LH
Medium Herb	5	5%	MH
Large Tufted Graminoid	1	5%	LTG
Medium to Small Tufted Graminoid	6	10%	MTG
Ground Fern	1	1%	GF
Scrambler or Climber	1	5%	SC
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C
<b>Total understorey projective foliage cover</b>		<b>70%</b>	

# EVC 20: Heathy Dry Forest Highlands – Northern Fall bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia dealbata</i>	Silver Wattle
MS	<i>Monotoca scoparia</i>	Prickly Broom-heath
MS	<i>Daviesia ulicifolia</i>	Gorse Bitter-pea
MS	<i>Daviesia leptophylla</i>	Narrow-leaf Bitter-pea
MS	<i>Persoonia confertiflora</i>	Cluster-flower Geebung
SS	<i>Hibbertia obtusifolia</i>	Grey Guinea-flower
SS	<i>Dillwynia phyllicoides</i>	Small-leaf Parrot-pea
SS	<i>Tetratheca bauerifolia</i>	Heath Pink-bells
SS	<i>Hovea heterophylla</i>	Common Hovea
PS	<i>Platylobium formosum</i>	Handsome Flat-pea
PS	<i>Persoonia chamaepeuce</i>	Dwarf Geebung
PS	<i>Acrotriche serrulata</i>	Honey-pots
LH	<i>Senecio tenuiflorus</i>	Slender Fireweed
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Poranthera microphylla</i>	Small Poranthera
MH	<i>Viola hederacea sensu Willis (1972)</i>	Ivy-leaf Violet
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
MTG	<i>Joycea pallida</i>	Silvertop Wallaby-grass
MTG	<i>Stylidium graminifolium s.l.</i>	Grass Trigger-plant
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
MTG	<i>Dianella revoluta s.l.</i>	Black-anther Flax-lily
GF	<i>Pteridium esculentum</i>	Austral Bracken
SC	<i>Cassytha pubescens s.s.</i>	Downy Dodder-laurel
SC	<i>Hardenbergia violacea</i>	Purple Coral-pea

## 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

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

## Highlands – Northern Fall 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 dives</i>	Broad-leaved Peppermint
	<i>Eucalyptus mannifera</i> ssp. <i>mannifera</i>	Brittle Gum

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	2	10%	T
Medium Shrub	8	15%	MS
Small Shrub	3	5%	SS
Prostrate Shrub	2	5%	PS
Large Herb	2	1%	LH
Medium Herb	7	5%	MH
Small or Prostrate Herb	2	1%	SH
Large Tufted Graminoid	1	1%	LTG
Large Non-tufted Graminoid	1	1%	LNG
Medium to Small Tufted Graminoid	6	10%	MTG
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>65%</b>	



# EVC 21: Shrubby Dry Forest Highlands – Northern Fall bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia dealbata</i>	Silver Wattle
T	<i>Exocarpos cupressiformis</i>	Cherry Ballart
MS	<i>Cassinia aculeata</i>	Common Cassinia
MS	<i>Daviesia latifolia</i>	Hop Bitter-pea
MS	<i>Daviesia ulicifolia</i>	Gorse Bitter-pea
MS	<i>Pultenaea juniperina s.l.</i>	Prickly Bush-pea
SS	<i>Hibbertia obtusifolia</i>	Grey Guinea-flower
SS	<i>Tetralochea ciliata</i>	Pink-bells
SS	<i>Hovea heterophylla</i>	Common Hovea
SS	<i>Olearia erubescens</i>	Moth Daisy-bush
PS	<i>Platylobium formosum</i>	Handsome Flat-pea
PS	<i>Persoonia chamaepeuce</i>	Dwarf Geebung
PS	<i>Acrotriche serrulata</i>	Honey-pots
LH	<i>Senecio tenuiflorus</i>	Slender Fireweed
LH	<i>Senecio linearifolius</i>	Fireweed Groundsel
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Viola hederacea sensu Willis (1972)</i>	Ivy-leaf Violet
MH	<i>Stellaria pungens</i>	Prickly Starwort
MH	<i>Asperula scoparia</i>	Prickly Woodruff
SH	<i>Hydrocotyle laxiflora</i>	Stinking Pennywort
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
MTG	<i>Joycea pallida</i>	Silvertop Wallaby-grass
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
MTG	<i>Dianella tasmanica</i>	Tasman Flax-lily
MTG	<i>Dianella revoluta s.l.</i>	Black-anther Flax-lily
MNG	<i>Microlaena stipoides var. stipoides</i>	Weeping Grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
SC	<i>Hardenbergia violacea</i>	Purple Coral-pea
SC	<i>Clematis aristata</i>	Mountain Clematis

## 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

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

## Highlands – Northern Fall 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.	60 cm	20 / ha

#### Tree Canopy Cover:

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

#### 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	3	5%	SS
Prostrate Shrub	2	1%	PS
Large Herb	4	5%	LH
Medium Herb	12	25%	MH
Small or Prostrate Herb	3	5%	SH
Large Tufted Graminoid	2	5%	LTG
Medium to Small Tufted Graminoid	8	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

# EVC 22: Grassy Dry Forest Highlands – Northern Fall bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia dealbata</i>	Silver Wattle
MS	<i>Cassinia aculeata</i>	Common Cassinia
MS	<i>Cassinia longifolia</i>	Shiny Cassinia
SS	<i>Pimelea linifolia</i>	Slender Rice-flower
SS	<i>Hibbertia obtusifolia</i>	Grey Guinea-flower
SS	<i>Hovea heterophylla</i>	Common Hovea
PS	<i>Acrotriche serrulata</i>	Honey-pots
PS	<i>Platylobium formosum</i>	Handsome Flat-pea
LH	<i>Wahlenbergia stricta</i>	Tall Bluebell
LH	<i>Senecio tenuiflorus</i>	Slender Fireweed
LH	<i>Senecio quadridentatus</i>	Cotton Fireweed
MH	<i>Epilobium billardierianum</i>	Variable Willow-herb
MH	<i>Hypericum gramineum</i>	Small St John's Wort
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
SH	<i>Poranthera microphylla</i>	Small Poranthera
SH	<i>Hydrocotyle laxiflora</i>	Stinking Pennywort
SH	<i>Dichondra repens</i>	Kidney-weed
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>Dianella revoluta s.l.</i>	Black-anther Flax-lily
MNG	<i>Microlaena stipoides var. stipoides</i>	Weeping Grass
MNG	<i>Echinopogon ovatus</i>	Common Hedgehog-grass
GF	<i>Cheilanthes austrotenuifolia</i>	Green Rock-fern
GF	<i>Pteridium esculentum</i>	Austral Bracken
SC	<i>Hardenbergia violacea</i>	Purple Coral-pea

**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
MH	<i>Centaureum erythraea</i>	Common Centaury	high	low
MH	<i>Anagallis arvensis</i>	Pimpernel	high	low
MH	<i>Trifolium arvense var. arvense</i>	Hare's-foot Clover	high	low
MTG	<i>Briza minor</i>	Lesser Quaking-grass	high	low
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MNG	<i>Aira elegantissima</i>	Delicate 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

## Highlands – Northern Fall 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 radiata</i> s.l.	Narrow-leaf Peppermint
	<i>Eucalyptus dives</i>	Broad-leaved Peppermint
	<i>Eucalyptus obliqua</i>	Messmate Stringybark

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	2	10%	T
Medium Shrub	7	15%	MS
Small Shrub	3	5%	SS
Prostrate Shrub	2	5%	PS
Large Herb	3	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	1%	LNG
Medium to Small Tufted Graminoid	6	10%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Ground Fern	2	10%	GF
Scrambler or Climber	2	5%	SC
Bryophytes/Lichens	na	20%	BL

# EVC 23: Herb-rich Foothill Forest Highlands – Northern Fall bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia dealbata</i>	Silver Wattle
MS	<i>Cassinia aculeata</i>	Common Cassinia
MS	<i>Coprosma quadrifida</i>	Prickly Currant-bush
MS	<i>Coprosma hirtella</i>	Rough Coprosma
MS	<i>Epacris impressa</i>	Common Heath
SS	<i>Tetradlea ciliata</i>	Pink-bells
SS	<i>Olearia erubescens</i>	Moth Daisy-bush
SS	<i>Hibbertia obtusifolia</i>	Grey Guinea-flower
SS	<i>Hovea heterophylla</i>	Common Hovea
PS	<i>Platylobium formosum</i>	Handsome Flat-pea
PS	<i>Acrotriche serrulata</i>	Honey-pots
PS	<i>Acrotriche prostrata</i>	Trailing Ground-berry
LH	<i>Senecio tenuiflorus</i>	Slender Fireweed
MH	<i>Viola hederacea sensu Willis (1972)</i>	Ivy-leaf Violet
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Lagenophora stipitata</i>	Common Bottle-daisy
SH	<i>Hydrocotyle laxiflora</i>	Stinking Pennywort
SH	<i>Dichondra repens</i>	Kidney-weed
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
LNG	<i>Tetrarrhena juncea</i>	Forest Wire-grass
MTG	<i>Stylidium graminifolium s.l.</i>	Grass Trigger-plant
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
MTG	<i>Dianella tasmanica</i>	Tasman Flax-lily
MTG	<i>Luzula meridionalis var. flaccida</i>	Common Woodrush
MNG	<i>Microlaena stipoides var. stipoides</i>	Weeping Grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Polystichum proliferum</i>	Mother Shield-fern
SC	<i>Clematis aristata</i>	Mountain Clematis
SC	<i>Glycine clandestina</i>	Twining Glycine
SC	<i>Hardenbergia violacea</i>	Purple Coral-pea

## Recruitment:

Continuous

## Organic Litter:

40 % cover

## Logs:

20 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

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

## Highlands – Northern Fall bioregion

### EVC 28: Rocky Outcrop Shrubland

#### Description:

Occurs in areas of low site quality on exposed rocky outcrops where rock is a dominant landform feature, soils are shallow or virtually absent and effective rainfall is low. Scattered, often stunted trees are occasionally present. A diverse shrub layer to 5 m tall characterises this EVC, including a number of rock-adapted species. The ground layer is usually sparse and species-poor except where it occurs in discrete patches and forms a mosaic with Rocky Outcrop Herbland.

#### Life forms:

Life form	#Spp	%Cover	LF code
Medium Shrub	7	25%	MS
Small Shrub	2	5%	SS
Large Herb	2	5%	LH
Medium Herb	5	5%	MH
Small or Prostrate Herb	2	1%	SH
Large Tufted Graminoid	2	5%	LTG
Medium to Small Tufted Graminoid	4	10%	MTG
Ground Fern	2	5%	GF
Bryophytes/Lichens	na	20%	BL
Soil Crust	na	10%	S/C
<b>Total understorey projective foliage cover</b>		<b>75%</b>	

LF Code	Character Species	Common Name
MS	<i>Monotoca scoparia</i>	Prickly Broom-heath
MS	<i>Hovea pannosa s.l.</i>	Mountain Beauty
MS	<i>Brachyloma daphnoides</i>	Daphne Heath
MS	<i>Persoonia confertiflora</i>	Cluster-flower Geebung
SS	<i>Hibbertia obtusifolia</i>	Grey Guinea-flower
SS	<i>Dillwynia phyllicoides</i>	Small-leaf Parrot-pea
SS	<i>Rhytidosporum procumbens</i>	White Marianth
SS	<i>Acacia gunnii</i>	Ploughshare Wattle
PS	<i>Platylobium formosum</i>	Handsome Flat-pea
PS	<i>Persoonia chamaepeuce</i>	Dwarf Geebung
LH	<i>Senecio tenuiflorus</i>	Slender Fireweed
LH	<i>Derwentia perfoliata</i>	Digger's Speedwell
LH	<i>Wahlenbergia multicaulis</i>	Branching Bluebell
LH	<i>Chrysocephalum semipapposum</i>	Clustered Everlasting
MH	<i>Stellaria pungens</i>	Prickly Starwort
MH	<i>Helichrysum scorpioides</i>	Button Everlasting
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Diuris sulphurea</i>	Tiger Orchid
SH	<i>Crassula sieberiana</i>	Sieber Crassula
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
LTG	<i>Austrodanthonia induta</i>	Shiny Wallaby-grass
MTG	<i>Dianella revoluta s.l.</i>	Black-anther Flax-lily
MTG	<i>Poa labillardierei</i>	Common Tussock-grass
MTG	<i>Joycea pallida</i>	Silvertop Wallaby-grass
MTG	<i>Lepidosperma laterale</i>	Variable Sword-sedge
GF	<i>Cheilanthes sieberi ssp. sieberi</i>	Narrow Rock-fern
GF	<i>Asplenium flabellifolium</i>	Necklace Fern

#### Recruitment:

Continuous

#### Organic Litter:

40 % cover

# EVC 28: Rocky Outcrop Shrubland Highlands – Northern Fall bioregion

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MNG	<i>Vulpia myuros</i>	Rat's-tail Fescue	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

## Highlands – Northern Fall bioregion

### EVC 29: Damp Forest

#### Description:

Grows on a wide range of geologies on well-developed generally colluvial soils on a variety of aspects, from sea level to montane elevations. Dominated by a tall eucalypt tree layer to 30 m tall over a medium to tall dense shrub layer of broad-leaved species typical of wet forest mixed with elements from dry forest types. The ground layer includes herbs and grasses as well as a variety of moisture-dependent ferns.

#### Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	90 cm	20 / ha

#### Tree Canopy Cover:

%cover	Character Species	Common Name
40%	<i>Eucalyptus obliqua</i> <i>Eucalyptus radiata</i> s.l.	Messmate Stringybark Small-leaved Peppermint

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	5	30%	T
Medium Shrub	6	15%	MS
Large Herb	2	1%	LH
Medium Herb	8	15%	MH
Small or Prostrate Herb	2	1%	SH
Large Tufted Graminoid	1	1%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	2	5%	MTG
Medium to Tiny Non-tufted Graminoid	1	1%	MNG
Ground Fern	3	15%	GF
Tree Fern	1	5%	TRF
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>Olearia argophylla</i>	Musk Daisy-bush
T	<i>Acacia dealbata</i>	Silver Wattle
T	<i>Lomatia fraseri</i>	Tree Lomatia
MS	<i>Coprosma quadrifida</i>	Prickly Currant-bush
MS	<i>Cassinia aculeata</i>	Common Cassinia
MS	<i>Pimelea axiflora</i>	Bootlace Bush
MS	<i>Olearia phlogopappa</i>	Dusty Daisy-bush
LH	<i>Mentha laxiflora</i>	Forest Mint
MH	<i>Viola hederacea</i> sensu Willis (1972)	Ivy-leaf Violet
MH	<i>Geranium potentilloides</i>	Cinquefoil Cranesbill
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
MH	<i>Hydrocotyle hirta</i>	Hairy Pennywort
SH	<i>Dichondra repens</i>	Kidney-weed
SH	<i>Leptinella filicula</i>	Mountain Cotula
LNG	<i>Tetrarrhena juncea</i>	Forest Wire-grass
MTG	<i>Dianella tasmanica</i>	Tasman Flax-lily
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Polystichum proliferum</i>	Mother Shield-fern
GF	<i>Calochlaena dubia</i>	Common Ground-fern
TRF	<i>Cyathea australis</i>	Rough Tree-fern
TRF	<i>Dicksonia antarctica</i>	Soft Tree-fern
SC	<i>Clematis aristata</i>	Mountain Clematis

# EVC 29: Damp Forest Highlands – Northern Fall 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>Hypochoeris radicata</i>	Cat's Ear	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

## Highlands – Northern Fall bioregion

### EVC 30: Wet Forest

#### Description:

Grows on fertile, well-drained loamy soils on a range of geologies and elevation levels. It is largely restricted to protected sites in gullies and on southern aspects of hills and mountains where rainfall is high and cloud cover at ground level is frequent. Characterised by a tall eucalypt overstorey to 30 m tall with scattered understorey trees over a tall broad-leaved shrubby understorey and a moist, shaded, fern-rich ground layer that is usually dominated by tree-ferns.

#### Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	90 cm	20 / ha

#### Tree Canopy Cover:

%cover	Character Species	Common Name
40%	<i>Eucalyptus regnans</i>	Mountain Ash

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	4	30%	T
Medium Shrub	6	20%	MS
Small Shrub	1	1%	SS
Large Herb	2	1%	LH
Medium Herb	5	10%	MH
Small or Prostrate Herb	2	1%	SH
Large Tufted Graminoid	1	1%	LTG
Large Non-tufted Graminoid	1	10%	LNG
Medium to Small Tufted Graminoid	1	5%	MTG
Ground Fern	4	20%	GF
Tree Fern	2	10%	TRF
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 dealbata</i>	Silver Wattle
T	<i>Pomaderris aspera</i>	Hazel Pomaderris
T	<i>Olearia argophylla</i>	Musk Daisy-bush
MS	<i>Coprosma quadrifida</i>	Prickly Currant-bush
MS	<i>Olearia phlogopappa</i>	Dusty Daisy-bush
MS	<i>Cassinia aculeata</i>	Common Cassinia
MS	<i>Correa lawrenceana</i>	Mountain Correa
MH	<i>Viola hederacea sensu Willis (1972)</i>	Ivy-leaf Violet
MH	<i>Hydrocotyle hirta</i>	Hairy Pennywort
MH	<i>Sambucus gaudichaudiana</i>	White Elderberry
MH	<i>Geranium potentilloides</i>	Cinquefoil Cranesbill
SH	<i>Leptostigma reptans</i>	Dwarf Nertera
LTG	<i>Lepidosperma elatius</i>	Tall Sword-sedge
LNG	<i>Tetrarrhena juncea</i>	Forest Wire-grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Polystichum proliferum</i>	Mother Shield-fern
GF	<i>Histiopteris incisa</i>	Bat's Wing Fern
GF	<i>Blechnum wattsii</i>	Hard Water-fern
TRF	<i>Dicksonia antarctica</i>	Soft Tree-fern
TRF	<i>Cyathea australis</i>	Rough Tree-fern
SC	<i>Clematis aristata</i>	Mountain Clematis
SC	<i>Billardiera longiflora</i> var. <i>longiflora</i>	Purple Apple-berry



# EVC 30: Wet Forest Highlands – Northern Fall 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>Hypochoeris radicata</i>	Cat's Ear	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

## Highlands – Northern Fall bioregion

### EVC 31: Cool Temperate Rainforest

#### Description:

Closed non-eucalypt forest to 25 m tall. Occurs in high rainfall areas protected from fire within Wet Forest. The understorey characterised by tree ferns and a rich epiphytic flora. The ground layer is dominated by a diversity of ground ferns.

#### Large trees:

Species	DBH(cm)	#/ha
<i>Nothofagus/Atherosperma</i>	70 cm	20 / ha

#### Tree Canopy Cover:

%cover	Character Species	Common Name
50%	<i>Nothofagus cunninghamii</i>	Myrtle Beech
	<i>Atherosperma moschatum</i>	Southern Sassafras

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	2	10%	T
Medium Shrub	4	10%	MS
Medium Herb	3	5%	MH
Large Tufted Graminoid	1	1%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	1	1%	MTG
Ground Fern	6	25%	GF
Tree Fern	2	25%	TRF
Epiphyte	3	5%	EP
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>Pittosporum bicolor</i>	Banyalla
MS	<i>Tasmannia lanceolata</i>	Mountain Pepper
MS	<i>Hedycarya angustifolia</i>	Austral Mulberry
MS	<i>Coprosma quadrifida</i>	Prickly Currant-bush
MS	<i>Prostanthera lasianthos</i>	Victorian Christmas-bush
MH	<i>Viola hederacea sensu Willis (1972)</i>	Ivy-leaf Violet
MH	<i>Australina pusilla ssp. muelleri</i>	Shade Nettle
MH	<i>Sambucus gaudichaudiana</i>	White Elderberry
MH	<i>Hydrocotyle hirta</i>	Hairy Pennywort
LTG	<i>Carex appressa</i>	Tall Sedge
LNG	<i>Tetrarrhena juncea</i>	Forest Wire-grass
MTG	<i>Libertia pulchella</i>	Pretty Grass-flag
MNG	<i>Uncinia tenella</i>	Delicate Hook-sedge
GF	<i>Blechnum wattsii</i>	Hard Water-fern
GF	<i>Grammitis billardiarei</i>	Common Finger-fern
GF	<i>Polystichum proliferum</i>	Mother Shield-fern
GF	<i>Asplenium bulbiferum ssp. gracillimum</i>	Mother Spleenwort
TRF	<i>Dicksonia antarctica</i>	Soft Tree-fern
TRF	<i>Cyathea australis</i>	Rough Tree-fern
EP	<i>Crepidomanes venosum</i>	Veined Bristle-fern
EP	<i>Microsorium pustulatum ssp. pustulatum</i>	Kangaroo Fern
EP	<i>Hymenophyllum australe</i>	Austral Filmy Fern
EP	<i>Hymenophyllum flabellatum</i>	Shiny Filmy Fern
SC	<i>Clematis aristata</i>	Mountain Clematis
SC	<i>Parsonsia brownii</i>	Twining Silkpod

# EVC 31: Cool Temperate Rainforest Highlands – Northern Fall bioregion

**Recruitment:**

Continuous

**Organic Litter:**

50 % 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 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

## Highlands – Northern Fall bioregion

### EVC 35: Tableland Damp Forest

#### Description:

Tall eucalypt forest to 30 m tall with an understorey dominated by a tall, diverse shrub layer of broad-leaved shrubs and heaths with sometimes a scattering of tree-ferns. The ground layer is dominated by a variety of herbs and graminoids. Occurs on topographically protected south-facing slopes and occasionally in gully heads on northern or western slopes in low relief montane areas.

#### Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	90 cm	20 / ha

#### Tree Canopy Cover:

%cover	Character Species	Common Name
40%	<i>Eucalyptus delegatensis</i> ssp. <i>delegatensis</i>	Alpine Ash

#### Understorey:

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

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia dealbata</i>	Silver Wattle
T	<i>Acacia obliquinervia</i>	Mountain Hickory Wattle
MS	<i>Polyscias sambucifolia</i>	Elderberry Panax
MS	<i>Coprosma hirtella</i>	Rough Coprosma
MS	<i>Olearia phlogopappa</i>	Dusty Daisy-bush
MS	<i>Cassinia aculeata</i>	Common Cassinia
SS	<i>Leucopogon hookeri</i>	Mountain Beard-heath
LH	<i>Derwentia derwentiana</i>	Derwent Speedwell
LH	<i>Senecio linearifolius</i>	Fireweed Groundsel
MH	<i>Viola hederacea</i> sensu Willis (1972)	Ivy-leaf Violet
MH	<i>Lagenophora stipitata</i>	Common Bottle-daisy
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
SH	<i>Leptinella filicula</i>	Mountain Cotula
MTG	<i>Dianella tasmanica</i>	Tasman Flax-lily
MTG	<i>Stylidium graminifolium</i> s.l.	Grass Trigger-plant
MTG	<i>Poa ensiformis</i>	Sword Tussock-grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Polystichum proliferum</i>	Mother Shield-fern

# EVC 35: Tableland Damp Forest Highlands - Northern Fall bioregion

**Recruitment:**

Continuous

**Organic Litter:**

50 % cover

**Logs:**

30 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

## Highlands – Northern Fall bioregion

### EVC 36: Montane Dry Woodland

#### Description:

Occurs on dry and exposed mid to upper slopes at montane elevations, often extending onto ridges in high rainfall areas. Effective rainfall may be enhanced by cold air drainage, low cloud cover and in some cases, persistent snow cover. Open forest to open woodland to 15 m tall, according to altitude, precipitation and frequency of fire. The shrubby understorey is an unusual combination of species, which tolerate exposed montane conditions and species that enjoy the increased moisture available from cloud and fog drip

#### Large trees:

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

#### Tree Canopy Cover:

%cover	Character Species	Common Name
20%	<i>Eucalyptus dives</i>	Broad-leaved Peppermint
	<i>Eucalyptus rubida</i>	Candlebark
	<i>Eucalyptus radiata</i>	Narrow-leaved Peppermint

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	2	20%	T
Medium Shrub	5	20%	MS
Small Shrub	2	5%	SS
Prostrate Shrub	2	5%	PS
Large Herb	3	5%	LH
Medium Herb	9	15%	MH
Large Tufted Graminoid	2	5%	LTG
Medium to Small Tufted Graminoid	6	15%	MTG
Ground Fern	1	5%	GF
Scrambler or Climber	2	1%	SC
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C

# EVC 36: Montane Dry Woodland Highlands – Northern Fall bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia dealbata</i>	Silver Wattle
T	<i>Acacia obliquinervia</i>	Mountain Hickory Wattle
MS	<i>Coprosma hirtella</i>	Rough Coprosma
MS	<i>Polyscias sambucifolia</i>	Elderberry Panax
MS	<i>Pultenaea juniperina</i> s.l.	Prickly Bush-pea
MS	<i>Cassinia aculeata</i>	Common Cassinia
SS	<i>Olearia erubescens</i>	Moth Daisy-bush
SS	<i>Hibbertia obtusifolia</i>	Grey Guinea-flower
SS	<i>Tetratheca ciliata</i>	Pink-bells
PS	<i>Platylobium formosum</i>	Handsome Flat-pea
PS	<i>Persoonia chamaepeuce</i>	Dwarf Geebung
PS	<i>Acrotriche serrulata</i>	Honey-pots
LH	<i>Derwentia derwentiana</i>	Derwent Speedwell
LH	<i>Senecio tenuiflorus</i>	Slender Fireweed
LH	<i>Wahlenbergia stricta</i>	Tall Bluebell
LH	<i>Arthropodium milleflorum</i> s.l.	Pale Vanilla-lily
MH	<i>Stellaria pungens</i>	Prickly Starwort
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Asperula scoparia</i>	Prickly Woodruff
MH	<i>Viola betonicifolia</i> ssp. <i>betonicifolia</i>	Showy Violet
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
MTG	<i>Stylidium graminifolium</i> s.l.	Grass Trigger-plant
MTG	<i>Dianella tasmanica</i>	Tasman Flax-lily
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
MTG	<i>Poa labillardierei</i>	Common Tussock-grass
MNG	<i>Luzula campestris</i> spp. agg.	Field Woodrush
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Polystichum proliferum</i>	Mother Shield-fern
SC	<i>Clematis aristata</i>	Mountain Clematis

**Recruitment:**  
Continuous

**Organic Litter:**  
20 % cover

**Logs:**  
15 m/0.1 ha.

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

## Highlands – Northern Fall bioregion

### EVC 37: Montane Grassy Woodland

#### Description:

Occurs in montane elevations on moderately fertile soils on all aspects. An open eucalypt woodland to 10 m tall, sometimes with a secondary tree layer. The understorey often consists of a sparse shrub layer which can be variable in height. The EVC is characterised by its grassy ground cover together with a variety of other graminoids and herbs.

#### Large trees:

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

#### Tree Canopy Cover:

%cover	Character Species	Common Name
20%	<i>Eucalyptus pauciflora</i>	Snow Gum
	<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	6	20%	MS
Small Shrub	3	10%	SS
Prostrate Shrub	2	5%	PS
Large Herb	4	10%	LH
Medium Herb	15	20%	MH
Small or Prostrate Herb	3	10%	SH
Large Tufted Graminoid	2	5%	LTG
Medium to Small Tufted Graminoid	7	20%	MTG
Medium to Tiny Non-tufted Graminoid	1	1%	MNG
Ground Fern	1	1%	GF
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C

# EVC 37: Montane Grassy Woodland Highlands – Northern Fall bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia dealbata</i>	Silver Wattle
MS	<i>Cassinia aculeata</i>	Common Cassinia
MS	<i>Pultenaea juniperina</i> s.l.	Prickly Bush-pea
MS	<i>Pimelea linifolia</i>	Slender Rice-flower
MS	<i>Brachyloma daphnoides</i>	Daphne Heath
SS	<i>Hibbertia obtusifolia</i>	Grey Guinea-flower
SS	<i>Olearia erubescens</i>	Moth Daisy-bush
SS	<i>Leucopogon hookeri</i>	Mountain Beard-heath
PS	<i>Platylobium formosum</i>	Handsome Flat-pea
PS	<i>Acrotriche serrulata</i>	Honey-pots
LH	<i>Arthropodium milleflorum</i> s.l.	Pale Vanilla-lily
LH	<i>Wahlenbergia stricta</i>	Tall Bluebell
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Viola betonicifolia</i> ssp. <i>betonicifolia</i>	Showy Violet
MH	<i>Stellaria pungens</i>	Prickly Starwort
SH	<i>Chiloglottis gunnii</i> s.l.	Common Bird-orchid
SH	<i>Galium ciliare</i>	Hairy Bedstraw
SH	<i>Leptinella filicula</i>	Mountain Cotula
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
LTG	<i>Deyeuxia quadriseta</i>	Reed Bent-grass
MTG	<i>Dianella tasmanica</i>	Tasman Flax-lily
MTG	<i>Stylidium graminifolium</i> s.l.	Grass Trigger-plant
MTG	<i>Themeda triandra</i>	Kangaroo Grass
MTG	<i>Luzula meridionalis</i> var. <i>flaccida</i>	Common Woodrush
GF	<i>Polystichum proliferum</i>	Mother Shield-fern
GF	<i>Pteridium esculentum</i>	Austral Bracken
SC	<i>Glycine clandestina</i>	Twining Glycine

**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
MH	<i>Cerastium glomeratum</i> s.l.	Common Mouse-ear Chickweed	high	low
MH	<i>Centaurea erythraea</i>	Common Centaury	high	low
MH	<i>Prunella vulgaris</i>	Self-heal	high	high
MH	<i>Taraxacum officinale</i> spp. agg.	Garden Dandelion	high	low
SH	<i>Trifolium repens</i> var. <i>repens</i>	White Clover	high	high

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

## Highlands – Northern Fall bioregion

### EVC 38: Montane Damp Forest

#### Description:

Grows on a wide range of geologies on well-developed generally colluvial soils on a variety of aspects at montane elevations. Dominated by a tall eucalypt tree layer to 30 m tall over a medium to tall dense shrub layer of broad-leaved species typical of wet forest mixed with elements from dry forest types. The ground layer includes herbs and grasses as well as a variety of moisture-dependent ferns.

#### Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	90 cm	20 / ha

#### Tree Canopy Cover:

%cover	Character Species	Common Name
40%	<i>Eucalyptus delegatensis</i> ssp. <i>delegatensis</i>	Alpine Ash
	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
	<i>Eucalyptus rubida</i>	Candlebark

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	3	15%	T
Medium Shrub	7	20%	MS
Small Shrub	2	1%	SS
Prostrate Shrub	1	5%	PS
Large Herb	4	5%	LH
Medium Herb	12	20%	MH
Small or Prostrate Herb	2	5%	SH
Large Tufted Graminoid	1	1%	LTG
Medium to Small Tufted Graminoid	6	20%	MTG
Medium to Tiny Non-tufted Graminoid	1	5%	MNG
Ground Fern	2	15%	GF
Scrambler or Climber	2	5%	SC
Bryophytes/Lichens	na	20%	BL



# EVC 38: Montane Damp Forest Highlands – Northern Fall bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia dealbata</i>	Silver Wattle
MS	<i>Cassinia aculeata</i>	Common Cassinia
MS	<i>Coprosma hirtella</i>	Rough Coprosma
MS	<i>Coprosma quadrifida</i>	Prickly Currant-bush
MS	<i>Polyscias sambucifolia</i>	Elderberry Panax
SS	<i>Olearia erubescens</i>	Moth Daisy-bush
PS	<i>Platylobium formosum</i>	Handsome Flat-pea
LH	<i>Derwentia derwentiana</i>	Derwent Speedwell
LH	<i>Senecio linearifolius</i>	Fireweed Groundsel
LH	<i>Picris angustifolia</i>	Native Picris
MH	<i>Viola hederacea sensu Willis (1972)</i>	Ivy-leaf Violet
MH	<i>Stellaria pungens</i>	Prickly Starwort
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
MH	<i>Lagenophora stipitata</i>	Common Bottle-daisy
SH	<i>Chiloglottis gunnii s.l.</i>	Common Bird-orchid
SH	<i>Leptinella filicula</i>	Mountain Cotula
SH	<i>Hydrocotyle laxiflora</i>	Stinking Pennywort
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
MTG	<i>Dianella tasmanica</i>	Tasman Flax-lily
MTG	<i>Poa ensiformis</i>	Sword Tussock-grass
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
MTG	<i>Stylidium graminifolium s.l.</i>	Grass Trigger-plant
MNG	<i>Microlaena stipoides var. stipoides</i>	Weeping Grass
MNG	<i>Deyeuxia rodwayi</i>	Tasman Bent-grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Polystichum proliferum</i>	Mother Shield-fern
SC	<i>Clematis aristata</i>	Mountain Clematis

## Recruitment:

Continuous.

## Organic Litter:

80 % cover

## Logs:

30 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

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

## Highlands – Northern Fall bioregion

### EVC 39: Montane Wet Forest

#### Description:

Grows on the most sheltered wet sites such as gully heads and south facing slopes at montane elevations in high rainfall areas. Soils are deep, fertile, well-drained and structureless and although well-drained, may remain saturated for long periods. The overstorey forms a tall open eucalypt forest to 30 m tall over a secondary tree layer with occasional tall shrubs which provide shade and protection for a fern-rich ground layer. Scattered herbs occur in gaps in the ground layer.

#### Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	90 cm	20 / ha

#### Tree Canopy Cover:

%cover	Character Species	Common Name
40%	<i>Eucalyptus regnans</i>	Mountain Ash
	<i>Eucalyptus nitens</i>	Shining Gum

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	5	30%	T
Medium Shrub	5	15%	MS
Large Herb	2	1%	LH
Medium Herb	6	10%	MH
Small or Prostrate Herb	1	1%	SH
Large Non-tufted Graminoid	1	15%	LNG
Medium to Small Tufted Graminoid	2	5%	MTG
Ground Fern	3	20%	GF
Tree Fern	2	5%	TRF
Scrambler or Climber	2	1%	SC
Bryophytes/Lichens	na	20%	BL

# EVC 39: Montane Wet Forest Highlands – Northern Fall bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia dealbata</i>	Silver Wattle
T	<i>Lomatia fraseri</i>	Tree Lomatia
MS	<i>Cassinia aculeata</i>	Common Cassinia
MS	<i>Polyscias sambucifolia</i>	Elderberry Panax
MS	<i>Olearia phlogopappa</i>	Dusty Daisy-bush
MS	<i>Prostanthera lasianthos</i>	Victorian Christmas-bush
LH	<i>Mentha laxiflora</i>	Forest Mint
LH	<i>Senecio velleioides</i>	Forest Groundsel
MH	<i>Stellaria flaccida</i>	Forest Starwort
MH	<i>Hydrocotyle hirta</i>	Hairy Pennywort
MH	<i>Geranium potentilloides</i>	Cinquefoil Cranesbill
MH	<i>Viola hederacea</i> sensu Willis (1972)	Ivy-leaf Violet
SH	<i>Leptinella filicula</i>	Mountain Cotula
SH	<i>Oxalis exilis</i>	Shady Wood-sorrel
SH	<i>Asperula euryphylla</i> var. <i>euryphylla</i>	Broad-leaf Woodruff
SH	<i>Oxalis corniculata</i> s.l.	Yellow Wood-sorrel
LTG	<i>Dryopoa dives</i>	Giant Mountain-grass
LNG	<i>Tetrarrhena juncea</i>	Forest Wire-grass
MTG	<i>Dianella tasmanica</i>	Tasman Flax-lily
MTG	<i>Poa ensiformis</i>	Sword Tussock-grass
MTG	<i>Poa australis</i> spp. agg.	Tussock Grass
GF	<i>Polystichum proliferum</i>	Mother Shield-fern
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Histiopteris incisa</i>	Bat's Wing Fern
TRF	<i>Dicksonia antarctica</i>	Soft Tree-fern
TRF	<i>Cyathea australis</i>	Rough Tree-fern
SC	<i>Clematis aristata</i>	Mountain Clematis

**Recruitment:**  
Continuous

**Organic Litter:**  
50 % cover

**Logs:**  
30 m/0.1 ha.

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 September 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

## Highlands – Northern Fall bioregion

### EVC 40: Montane Riparian Woodland

#### Description:

Associated with the peat-rich flats of perennial, meandering streams which flow through Montane Dry Woodland at montane elevations. Characterised by a low open woodland to 10 m tall with a dense riparian shrub layer lining the smaller creeks but on the larger streams may be largely non-treed. The ground layer contains a dense sward of grasses, herbs and sedges often associated with creeks or river margins.

#### 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 rubida</i>	Candlebark
	<i>Eucalyptus camphora</i> ssp. <i>humeana</i>	Mountain Swamp-gum
	<i>Eucalyptus stellulata</i>	Black Sallee

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	1	10%	T
Medium Shrub	3	10%	MS
Small Shrub	3	5%	SS
Large Herb	4	10%	LH
Medium Herb	12	20%	MH
Small or Prostrate Herb	4	10%	SH
Large Tufted Graminoid	3	5%	LTG
Large Non-tufted Graminoid	1	1%	LNG
Medium to Small Tufted Graminoid	6	30%	MTG
Medium to Tiny Non-tufted Graminoid	3	5%	MNG
Ground Fern	2	5%	GF
Bryophytes/Lichens	na	20%	BL

#### Recruitment:

Continuous

#### Organic Litter:

40 % cover

#### Logs:

15 m/0.1 ha.

# EVC 40: Montane Riparian Woodland Highlands – Northern Fall bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Leptospermum grandifolium</i>	Mountain Tea-tree
MS	<i>Baeckea gunniana</i>	Alpine Baeckea
MS	<i>Leptospermum myrtifolium</i>	Myrtle Tea-tree
MS	<i>Pimelea axiflora</i>	Bootlace Bush
SS	<i>Rubus parvifolius</i>	Small-leaf Bramble
SS	<i>Hovea heterophylla</i>	Common Hovea
SS	<i>Leucopogon hookeri</i>	Mountain Beard-heath
SS	<i>Epacris microphylla</i> s.l.	Coral Heath
LH	<i>Villarsia reniformis</i>	Running Marsh-flower
LH	<i>Veronica gracilis</i>	Slender Speedwell
LH	<i>Senecio hispidulus</i>	Rough Fireweed
MH	<i>Asperula pusilla</i>	Alpine Woodruff
MH	<i>Asperula gunnii</i>	Mountain Woodruff
MH	<i>Geranium potentilloides</i>	Cinquefoil Cranesbill
SH	<i>Dichondra repens</i>	Kidney-weed
SH	<i>Ranunculus amphitrichus</i>	Small River Buttercup
SH	r <i>Gratiola nana</i>	Matted Brooklime
SH	<i>Scleranthus biflorus</i> s.l.	Twin-flower Knawel
LTG	<i>Deyeuxia quadriseta</i>	Reed Bent-grass
LTG	r <i>Scirpus polystachyus</i>	Large-head Club-sedge
LTG	<i>Juncus gregiflorus</i>	Green Rush
LTG	<i>Carex longibrachiata</i>	Bergalia Tussock
MTG	<i>Carex gaudichaudiana</i>	Fen Sedge
MTG	<i>Lachnagrostis filiformis</i>	Common Blown-grass
MTG	<i>Lachnagrostis aemula</i> s.l.	Leafy Blown-grass
MTG	<i>Carex blakei</i>	Alpine Sedge
MNG	<i>Isolepis crassiuscula</i>	Alpine Club-sedge
MNG	<i>Baumea gunnii</i>	Slender Twig-sedge
MNG	<i>Baloskion australe</i>	Mountain Cord-rush
MNG	<i>Luzula campestris</i> spp. agg.	Field Woodrush
GF	<i>Polystichum proliferum</i>	Mother Shield-fern
GF	<i>Blechnum minus</i>	Soft Water-fern

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MS	<i>Rosa rubiginosa</i>	Sweet Briar	low	high
LH	<i>Cirsium vulgare</i>	Spear Thistle	high	high
LH	<i>Rumex crispus</i>	Curled Dock	high	high
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Prunella vulgaris</i>	Self-heal	high	high
MH	<i>Trifolium dubium</i>	Suckling Clover	high	low
MH	<i>Cerastium glomeratum</i> s.l.	Common Mouse-ear Chickweed	high	low
MH	<i>Taraxacum officinale</i> spp. agg.	Garden Dandelion	high	low
MH	<i>Batrachium trichophyllum</i>	Water Fennel	high	high
MH	<i>Acetosella vulgaris</i>	Sheep Sorrel	high	high
SH	<i>Trifolium repens</i> var. <i>repens</i>	White Clover	high	high
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
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 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

## Highlands – Northern Fall bioregion

### EVC 41: Montane Riparian Thicket

#### Description:

Closed shrubland to 8 m tall, often occurring as a narrow, linear strip along montane streams. The overstorey tree stratum is usually absent (although emergents may occur), often occurring only as overhang from adjacent Montane Damp Forest. Occurs in montane and sub-alpine areas, often within Montane Damp Forest along drainage lines, streams with gentle gradients and in soaks at the heads of gullies on south-facing aspects. The waterlogged soils are colluviums or alluviums rich in organic matter. The understorey consists of shade-tolerant shrubs and ferns. Sedges, grasses and herbs form a sparse but diverse ground layer.

#### Canopy Cover:

%cover	Character Species	Common Name
50%	<i>Leptospermum grandifolium</i>	Mountain Tea-tree
	<i>Acacia melanoxylon</i>	Blackwood
	<i>Acacia dealbata</i>	Silver Wattle

#### Understorey:

Life form	#Spp	%Cover	LF code
Medium Shrub	4	10%	MS
Medium Herb	4	5%	MH
Small or Prostrate Herb	2	1%	SH
Large Tufted Graminoid	2	5%	LTG
Medium to Small Tufted Graminoid	3	5%	MTG
Ground Fern	5	35%	GF
Tree Fern	1	1%	TRF
Bryophytes/Lichens	na	20%	BL
<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>Coprosma quadrifida</i>	Prickly Currant-bush
MS	<i>Tasmannia lanceolata</i>	Mountain Pepper
MS	<i>Prostanthera lasianthos</i>	Victorian Christmas-bush
MS	<i>Epacris breviflora</i>	Drumstick Heath
LH	<i>Epilobium gunnianum</i>	Gunn's Willow-herb
MH	<i>Viola hederacea sensu Willis (1972)</i>	Ivy-leaf Violet
MH	<i>Hydrocotyle hirta</i>	Hairy Pennywort
MH	<i>Gratiola peruviana</i>	Austral Brooklime
MH	<i>Australina pusilla ssp. muelleri</i>	Shade Nettle
SH	<i>Leptinella filicula</i>	Mountain Cotula
LTG	<i>Carex appressa</i>	Tall Sedge
LTG	<i>Deyeuxia brachyathera</i>	Short Bent-grass
MTG	<i>Dianella tasmanica</i>	Tasman Flax-lily
MTG	<i>Poa labillardierei var. labillardierei</i>	Common Tussock-grass
GF	<i>Blechnum nudum</i>	Fishbone Water-fern
GF	<i>Polystichum proliferum</i>	Mother Shield-fern
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Blechnum wattsi</i>	Hard Water-fern
TRF	<i>Todea barbara</i>	Austral King-fern
SC	<i>Clematis aristata</i>	Mountain Clematis

# EVC 41: Montane Riparian Thicket Highlands – Northern Fall 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
MH	<i>Prunella vulgaris</i>	Self-heal	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

## Highlands – Northern Fall bioregion

### EVC 43: Sub-alpine Woodland

#### Description:

Grows on a wide range of geologies and aspects, in the higher altitudinal levels above 1200 m. Rainfall is relatively high and snow may persist for long periods over winter. Soils are generally skeletal sandy clay loams with a rich humus topsoil layer. A low, open woodland to 10 m tall dominated by Snow Gum *Eucalyptus pauciflora*, with the understorey variously consisting of a rich suite of grasses and herbs, or a dense layer of woody shrubs, depending on soil fertility.

#### Large trees:

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

#### Tree Canopy Cover:

%cover	Character Species	Common Name
15%	<i>Eucalyptus pauciflora</i>	Snow Gum
	<i>Eucalyptus pauciflora</i> ssp. <i>niphophila</i>	Alpine Sally

#### Understorey:

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

#### LF Code

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

#### Common Name

T	<i>Acacia dealbata</i>	Silver Wattle
MS	<i>Coprosma hirtella</i>	Rough Coprosma
MS	<i>Lomatia myricoides</i>	River Lomatia
MS	<i>Polyscias sambucifolia</i>	Elderberry Panax
MS	<i>Pultenaea juniperina</i> s.l.	Prickly Bush-pea
PS	<i>Platylobium formosum</i>	Handsome Flat-pea
LH	<i>Lobelia gibbosa</i> s.s.	Tall Lobelia
LH	<i>Derwentia derwentiana</i>	Derwent Speedwell
MH	<i>Lagenophora stipitata</i>	Common Bottle-daisy
MH	<i>Viola betonicifolia</i> ssp. <i>betonicifolia</i>	Showy Violet
MH	<i>Stellaria pungens</i>	Prickly Starwort
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
SH	<i>Gonocarpus montanus</i>	Mat Raspwort
SH	<i>Leptinella filicula</i>	Mountain Cotula
LTG	<i>Lomandra longifolia</i> ssp. <i>exilis</i>	Cluster-headed Mat-rush
LTG	<i>Deyeuxia frigida</i>	Forest Bent-grass
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
MTG	<i>Luzula meridionalis</i> var. <i>flaccida</i>	Common Woodrush
MTG	<i>Poa hothamensis</i> var. <i>hothamensis</i>	Ledge Grass
MTG	<i>Poa sieberiana</i> var. <i>sieberiana</i>	Grey Tussock-grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
SC	<i>Clematis aristata</i>	Mountain Clematis

# EVC 43: Sub-alpine Woodland Highlands – Northern Fall bioregion

**Recruitment:**

Continuous

**Organic Litter:**

20 % cover

**Logs:**

10 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>Anthoxanthum odoratum</i>	Sweet Vernal-grass	high	high

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

## Highlands – Northern Fall bioregion

### EVC 45: Shrubby Foothill Forest

#### Description:

Occurs on ridges and exposed slopes in association moister forests 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
30%	<i>Eucalyptus macrorhyncha</i>	Red Stringybark
	<i>Eucalyptus ovata</i>	Swamp Gum
	<i>Eucalyptus obliqua</i>	Messmate Stringybark
	<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	1	5%	T
Medium Shrub	5	20%	MS
Small Shrub	1	5%	SS
Prostrate Shrub	2	5%	PS
Medium Herb	8	15%	MH
Large Tufted Graminoid	1	1%	LTG
Large Non-tufted Graminoid	1	15%	LNG
Medium to Small Tufted Graminoid	1	10%	MTG
Medium to Tiny Non-tufted Graminoid	2	10%	MNG
Ground Fern	3	15%	GF
Scrambler or Climber	2	5%	SC
Bryophytes/Lichens	na	10%	BL

#### LF Code

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

#### Common Name

MS	<i>Leptospermum scoparium</i>	Manuka
MS	<i>Coprosma quadrifida</i>	Prickly Currant-bush
MS	<i>Pultenaea juniperina</i> s.l.	Prickly Bush-pea
MS	<i>Epacris impressa</i>	Common Heath
SS	<i>Tetratheca ciliata</i>	Pink-bells
PS	<i>Acrotriche serrulata</i>	Honey-pots
PS	<i>Acrotriche prostrata</i>	Trailing Ground-berry
MH	<i>Oxalis perennans</i>	Grassland Wood-sorrel
MH	<i>Hydrocotyle hirta</i>	Hairy Pennywort
MH	<i>Viola hederacea</i> sensu Entwisle (1996)	Ivy-leaf Violet
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
LTG	<i>Gahnia sieberiana</i>	Red-fruit Saw-sedge
LNG	<i>Tetrarrhena juncea</i>	Forest Wire-grass
MTG	<i>Poa ensiformis</i>	Sword Tussock-grass
MNG	<i>Poa tenera</i>	Slender Tussock-grass
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Calochlaena dubia</i>	Common Ground-fern
GF	<i>Blechnum nudum</i>	Fishbone Water-fern
SC	<i>Clematis aristata</i>	Mountain Clematis



# EVC 45: Shrubby Foothill Forest Highlands – Northern Fall bioregion

**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
SS	<i>Rubus sp. aff. armeniacus</i>	Blackberry	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

## Highlands – Northern Fall 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. Open forest 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

*Eucalyptus* spp.

##### DBH(cm)

70 cm

##### #/ha

20 / ha

#### Tree Canopy Cover:

##### %cover

20%

##### Character Species

*Eucalyptus rubida*

*Eucalyptus radiata* s.l.

*Eucalyptus melliodora*

*Eucalyptus obliqua*

##### Common Name

Candlebark

Narrow-leaf Peppermint

Yellow Box

Messmate Stringybark

#### Understorey:

##### Life form

Immature Canopy Tree

Understorey Tree or Large Shrub

Medium Shrub

Small Shrub

Prostrate Shrub

Large Herb

Medium Herb

Small or Prostrate Herb

Large Tufted Graminoid

Medium to Small Tufted Graminoid

Medium to Tiny Non-tufted Graminoid

Ground Fern

Scrambler or Climber

Bryophytes/Lichens

##### #Spp

2

6

5

3

3

16

4

3

12

3

1

2

na

##### %Cover

5%

10%

10%

5%

5%

1%

20%

5%

5%

25%

10%

5%

5%

20%

##### LF code

IT

T

MS

SS

PS

LH

MH

SH

LTG

MTG

MNG

GF

SC

BL

#### Recruitment:

Continuous

#### Organic Litter:

40 % cover

#### Logs:

20 m/0.1 ha.

# EVC 47: Valley Grassy Forest Highlands – Northern Fall bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia dealbata</i>	Silver Wattle
T	<i>Acacia melanoxylon</i>	Blackwood
MS	<i>Cassinia aculeata</i>	Common Cassinia
MS	<i>Coprosma quadrifida</i>	Prickly Currant-bush
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
SS	<i>Hovea heterophylla</i>	Common Hovea
SS	<i>Hibbertia obtusifolia</i>	Grey Guinea-flower
SS	<i>Tetratheca pilosa</i>	Hairy Pink-bells
SS	<i>Tetratheca ciliata</i>	Pink-bells
PS	<i>Acrotriche serrulata</i>	Honey-pots
PS	<i>Platylobium formosum</i>	Handsome Flat-pea
PS	<i>Acrotriche prostrata</i>	Trailing Ground-berry
PS	<i>Boronia nana</i> var. <i>hyssopifolia</i>	Dwarf Boronia
LH	<i>Senecio quadridentatus</i>	Cotton Fireweed
LH	<i>Senecio tenuiflorus</i>	Slender Fireweed
MH	<i>Ajuga australis</i>	Austral Bugle
MH	<i>Euchiton collinus</i> s.s.	Creeping Cudweed
MH	<i>Viola hederacea</i> sensu Willis (1972)	Ivy-leaf Violet
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
SH	<i>Hydrocotyle laxiflora</i>	Stinking Pennywort
SH	<i>Dichondra repens</i>	Kidney-weed
SH	<i>Desmodium gunnii</i>	Southern Tick-trefoil
SH	<i>Galium propinquum</i>	Maori Bedstraw
LTG	<i>Deyeuxia quadriseta</i>	Reed Bent-grass
LTG	<i>Lomandra longifolia</i> ssp. <i>exilis</i>	Cluster-headed Mat-rush
LTG	<i>Poa labillardierei</i>	Common Tussock-grass
MTG	<i>Themeda triandra</i>	Kangaroo Grass
MTG	<i>Poa sieberiana</i> var. <i>sieberiana</i>	Grey Tussock-grass
MTG	<i>Luzula meridionalis</i> var. <i>flaccida</i>	Common Woodrush
MTG	<i>Stylidium graminifolium</i> s.l.	Grass Trigger-plant
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
MNG	<i>Echinopogon ovatus</i>	Common Hedgehog-grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
SC	<i>Glycine clandestina</i>	Twining Glycine
SC	<i>Hardenbergia violacea</i>	Purple Coral-pea

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MS	<i>Rosa rubiginosa</i>	Sweet Briar	high	high
MS	<i>Rubus</i> sp. aff. <i>armeniacus</i>	Blackberry	high	high
LH	<i>Hypericum perforatum</i>	St John's Wort	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 dubium</i>	Suckling Clover	high	low
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MTG	<i>Briza minor</i>	Lesser Quaking-grass	high	low
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MNG	<i>Aira elegantissima</i>	Delicate 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

## Highlands – Northern Fall bioregion

### EVC 48: Heathy Woodland

#### Description:

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

#### Large trees:

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

#### Tree Canopy Cover:

%cover	Character Species	Common Name
15%	<i>Eucalyptus dives</i>	Broad-leaved Peppermint

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Medium Shrub	7	40%	MS
Small Shrub	6	20%	SS
Prostrate Shrub	1	1%	PS
Medium Herb	4	5%	MH
Large Tufted Graminoid	2	10%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	4	10%	MTG
Ground Fern	1	1%	GF
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C

# EVC 48: Heathy Woodland Highlands - Northern Fall bioregion

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Monotoca scoparia</i>	Prickly Broom-heath
MS	<i>Epacris impressa</i>	Common Heath
MS	<i>Banksia marginata</i>	Silver Banksia
SS	<i>Leucopogon virgatus</i>	Common Beard-heath
SS	<i>Hovea heterophylla</i>	Common Hovea
SS	<i>Dillwynia sericea</i> s.l.	Showy Parrot-pea
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Drosera peltata</i> ssp. <i>auriculata</i>	Tall Sundew
MH	<i>Hydrocotyle hirta</i>	Hairy Pennywort
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
LNG	<i>Tetrarrhena juncea</i>	Forest Wire-grass
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
SC	<i>Cassytha glabella</i>	Slender Dodder-laurel

## Recruitment:

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

## Organic Litter:

40 % cover

## Logs:

15 m/0.1 ha.

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MTG	<i>Briza maxima</i>	Large Quaking-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

## Highlands – Northern Fall bioregion

### EVC 55: Plains Grassy Woodland

#### Description:

An open, eucalypt woodland to 15 m tall. Occupies on well drained, fertile soils on flat or gently undulating plains at low elevations in areas with >600 mm annual rainfall. The understorey consists of a few sparse shrubs over a species-rich grassy and herbaceous ground layer characterised by summer-growing grasses.

#### 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 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
MS	<i>Acacia acinacea</i> s.l.	Gold-dust Wattle
MS	<i>Bursaria spinosa</i>	Sweet Bursaria
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>Chrysocephalum apiculatum</i> s.l.	Common Everlasting
MH	<i>Acaena echinata</i>	Sheep's Burr
MH	<i>Eryngium ovinum</i>	Blue Devil
SH	<i>Dichondra repens</i>	Kidney-weed
LTG	<i>Austrostipa</i> spp.	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>	Striped Wallaby-grass
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass

# EVC 55: Plains Grassy Woodland Highlands – Northern Fall 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	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	high
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 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

## Highlands – Northern Fall bioregion

### EVC 56: Floodplain Riparian Woodland

#### Description:

An open woodland to 20 m tall usually dominated by Red Gum *Eucalyptus* spp. 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
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	6	15%	MS
Small Shrub	1	1%	SS
Large Herb	4	10%	LH
Medium Herb	4	10%	MH
Small or Prostrate Herb	1	1%	SH
Large Tufted Graminoid	3	10%	LTG
Large Non-tufted Graminoid	2	10%	LNG
Medium to Small Tufted Graminoid	3	10%	MTG
Medium to Tiny Non-tufted Graminoid	3	10%	MNG
Ground Fern	1	5%	GF
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 dealbata</i>	Silver Wattle
MS	<i>Hymenanthera dentata</i> s.l.	Tree Violet
MS	<i>Cassinia aculeata</i>	Common Cassinia
MS	<i>Kunzea ericoides</i>	Burgan
SS	<i>Rubus parvifolius</i>	Small-leaf Bramble
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
SH	<i>Hydrocotyle laxiflora</i>	Stinking Pennywort
LTG	<i>Carex appressa</i>	Tall Sedge
LTG	<i>Poa labillardierei</i>	Common Tussock-grass
LNG	<i>Phragmites australis</i>	Common Reed
MTG	<i>Juncus amabilis</i>	Hollow Rush
MTG	<i>Cyperus lhotskyanus</i>	Creeping Flat-sedge
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
MNG	<i>Distichlis distichophylla</i>	Australian Salt-grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
EP	<i>Muellerina eucalyptoides</i>	Creeping Mistletoe

#### Recruitment:

Episodic/Flood. Desirable period between disturbances is 10 years.

#### Organic Litter:

40 % cover

# EVC 56: Floodplain Riparian Woodland Highlands – Northern Fall bioregion

## Logs:

30 m/0.1 ha.

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
T	<i>Pinus radiata</i>	Radiata Pine	low	high
T	<i>Crataegus monogyna</i>	Hawthorn	low	high
MS	<i>Rosa rubiginosa</i>	Sweet Briar	low	high
MS	<i>Ulex europaeus</i>	Gorse	low	high
MS	<i>Rubus fruticosus</i> spp. agg.	Blackberry	high	high
LH	<i>Foeniculum vulgare</i>	Fennel	high	high
LH	<i>Verbena bonariensis</i> s.l.	Purple-top Verbena	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
LH	<i>Rumex crispus</i>	Curled Dock	high	low
LH	<i>Sonchus asper</i> s.l.	Rough Sow-thistle	high	low
LH	<i>Solanum nigrum</i> sensu Willis (1972)	Black Nightshade	high	low
LH	<i>Silybum marianum</i>	Variegated Thistle	high	high
LH	<i>Rorippa palustris</i>	Marsh Yellow-cress	high	high
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Acetosella vulgaris</i>	Sheep Sorrel	high	high
MH	<i>Trifolium dubium</i>	Suckling Clover	high	low
MH	<i>Trifolium subterraneum</i>	Subterranean Clover	high	low
MH	<i>Cerastium glomeratum</i> s.l.	Common Mouse-ear Chickweed	high	low
MH	<i>Prunella vulgaris</i>	Self-heal	high	low
MH	<i>Anagallis arvensis</i>	Pimpernel	high	low
SH	<i>Trifolium repens</i> var. <i>repens</i>	White Clover	high	low
SH	<i>Polygonum aviculare</i> s.l.	Prostrate Knotweed	high	low
SH	<i>Callitriche stagnalis</i>	Common Starwort	high	high
LTG	<i>Phalaris aquatica</i>	Toowoomba Canary-grass	high	high
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MTG	<i>Lolium multiflorum</i>	Italian Rye-grass	high	low
MTG	<i>Cyperus eragrostis</i>	Drain Flat-sedge	high	high
MTG	<i>Bromus hordeaceus</i> ssp. <i>hordeaceus</i>	Soft Brome	high	low
MTG	<i>Lolium perenne</i>	Perennial Rye-grass	high	high
MTG	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	high	low
MTG	<i>Critesion murinum</i>	Barley-grass	high	low
MTG	<i>Poa annua</i>	Annual Meadow-grass	high	low
MTG	<i>Bromus diandrus</i>	Great Brome	high	low
MTG	<i>Bromus catharticus</i>	Prairie Grass	high	low
MTG	<i>Dactylis glomerata</i>	Cocksfoot	high	high
MNG	<i>Paspalum distichum</i>	Water Couch	high	high
SC	<i>Galium aparine</i>	Cleavers	high	low
SC	<i>Vicia sativa</i>	Common Vetch	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

## Highlands – Northern Fall bioregion

### EVC 59: Riparian Thicket

#### Description:

Dense thickets of Woolly Tea-tree *Leptospermum lanigerum* to 6 m tall with occasional emergent eucalypts that occur on broad beds of small streams or on regular flooded terraces of large streams and rivers. Ground layer is dominated by a number of ferns, tree-ferns and sedges.

#### Canopy Cover:

%cover	Character Species	Common Name
50%	<i>Leptospermum lanigerum</i>	Woolly Tea-tree

#### Understorey:

Life form	#Spp	%Cover	LF code
Medium Shrub	8	30%	MS
Small Shrub	3	5%	SS
Prostrate Shrub	1	1%	PS
Large Herb	2	5%	LH
Medium Herb	5	10%	MH
Small or Prostrate Herb	1	5%	SH
Large Tufted Graminoid	3	10%	LTG
Large Non-tufted Graminoid	2	5%	LNG
Medium to Small Tufted Graminoid	2	5%	MTG
Medium to Tiny Non-tufted Graminoid	3	15%	MNG
Ground Fern	3	10%	GF
Tree Fern	1	5%	TRF
Scrambler or Climber	2	5%	SC
Bryophytes/Lichens	na	20%	BL

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Epacris impressa</i>	Common Heath
MS	<i>Cassinia aculeata</i>	Common Cassinia
MS	<i>Ozothamnus rosmarinifolius</i>	Rosemary Everlasting
MS	<i>Kunzea ericoides</i>	Burgan
SS	<i>Dampiera stricta</i>	Blue Dampiera
SS	<i>Amperea xiphoclada</i> var. <i>xiphoclada</i>	Broom Spurge
SS	<i>Acacia brownii</i>	Heath Wattle
PS	<i>Acrotriche prostrata</i>	Trailing Ground-berry
LH	<i>Senecio minimus</i>	Shrubby Fireweed
LH	<i>Epilobium pallidiflorum</i>	Showy Willow-herb
MH	<i>Viola hederacea</i> sensu Willis (1972)	Ivy-leaf Violet
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
LTG	<i>Cyperus lucidus</i>	Leafy Flat-sedge
LTG	<i>Carex appressa</i>	Tall Sedge
LNG	<i>Tetrarrhena juncea</i>	Forest Wire-grass
LNG	<i>Gahnia radula</i>	Thatch Saw-sedge
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MTG	<i>Lepidosperma filiforme</i>	Common Rapier-sedge
MNG	<i>Poa tenera</i>	Slender Tussock-grass
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
MNG	<i>Baumea tetragona</i>	Square Twig-sedge
GF	<i>Gleichenia dicarpa</i>	Pouched Coral-fern
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Blechnum minus</i>	Soft Water-fern
TRF	<i>Cyathea australis</i>	Rough Tree-fern
SC	<i>Billardiera scandens</i>	Common Apple-berry



# EVC 59: Riparian Thicket Highlands – Northern Fall bioregion

**Recruitment:**

Continuous

**Organic Litter:**

40 % cover

**Weediness:**

LF Code	Typical Weed Species	Common Name	Invasive	Impact
T	<i>Salix cinerea</i>	Grey Sallow	high	high
T	<i>Pinus radiata</i>	Radiata Pine	high	high
MS	<i>Prunus cerasifera</i>	Cherry Plum	high	high
MS	<i>Cotoneaster pannosus</i>	Velvet Cotoneaster	high	high
MS	<i>Erica lusitanica</i>	Spanish Heath	high	high
SS	<i>Rubus</i> sp. aff. <i>armeniacus</i>	Blackberry	high	high
LH	<i>Solanum nigrum</i> sensu Willis (1972)	Black Nightshade	high	low
MH	<i>Lotus suaveolens</i>	Hairy Bird's-foot Trefoil	high	high
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Prunella vulgaris</i>	Self-heal	high	low
SH	<i>Callitriche stagnalis</i>	Common Starwort	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

## Highlands Northern Fall 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	1	5%	T
Medium Shrub	4	10%	MS
Small Shrub	3	5%	SS
Large Herb	2	5%	LH
Medium Herb	9	15%	MH
Small Herb	3	5%	SH
Large Tufted Graminoid	3	15%	LTG
Large Non-tufted Graminoid	1	5%	LNG
Medium to Small Tufted Graminoid	15	30%	MTG
Medium to Tiny Non-tufted Graminoid	3	5%	MNG
Bryophytes/Lichens	na	10%	BL

## EVC 68: Creekline Grassy Woodland – Highlands Northern Fall bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia dealbata</i>	Silver Wattle
T	<i>Acacia melanoxylon</i>	Blackwood
MS	<i>Acacia pycnantha</i>	Golden Wattle
MS	<i>Melaleuca parvistaminea</i>	Rough-barked Haoney-myrtle
MS	<i>Acacia retinodes</i> var. <i>retinodes</i>	Wilrilda
SS	<i>Pimelea humilis</i>	Common Rice-flower
PS	<i>Astroloma humifusum</i>	Cranberry Heath
LH	<i>Senecio tenuiflorus</i>	Slender Fireweed
LH	<i>Senecio quadridentatus</i>	Cottony Fireweed
MH	<i>Centipeda cunninghamii</i>	Common Sneezeweed
MH	<i>Hypericum gramineum</i>	Small St John's Wort
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>Elymus scaber</i> var. <i>scaber</i>	Common Wheat-grass
MTG	<i>Juncus</i> spp.	Rush
MTG	<i>Cyperus</i> spp.	Flat-sedge
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass

### Recruitment:

Continuous

### Organic Litter:

40 % cover

### Logs:

30 m/0.1 ha.

### Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
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>Anagallis arvensis</i>	Pimpernel	high	low
MH	<i>Hypochoeris glabra</i>	Smooth Cat's-ear	high	low
MH	<i>Galium murale</i>	Small Goosegrass	high	low
MH	<i>Oxalis pes-caprae</i>	Soursob	high	high
LTG	<i>Juncus acutus</i>	Spiny Rush	high	high
LTG	<i>Phalaris aquatica</i>	Toowoomba Canary-grass	high	high
MTG	<i>Briza maxima</i>	Large Quaking-grass	high	low
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>Bromus hordeaceus</i> ssp. <i>hordeaceus</i>	Soft Brome	high	low
MNG	<i>Aira elegantissima</i>	Delicate Hair-grass	high	low
MNG	<i>Vulpia muralis</i>	Wall Fescue	high	low
MNG	<i>Bromus madritensis</i>	Madrid Brome	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

## Highlands – Northern Fall 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 nortonii</i>	Silver Bundy
	<i>Eucalyptus macrorhyncha</i>	Red Stringybark
	<i>Eucalyptus goniocalyx</i> s.l.	Bundy

#### Understorey:

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	20%	SS
Large Herb	2	5%	LH
Medium Herb	11	20%	MH
Medium to Small Tufted Graminoid	4	5%	MTG
Medium to Tiny Non-tufted Graminoid	3	5%	MNG
Ground Fern	1	1%	GF
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
T	<i>Allocasuarina verticillata</i>	Drooping Sheoak
MS	<i>Calytrix tetragona</i>	Common Fringe-myrtle
MS	<i>Cassinia longifolia</i>	Shiny Cassinia
MS	<i>Grevillea jephcottii</i>	Green Grevillea
MS	<i>Acacia verniciflua</i>	Varnish Wattle
SS	<i>Micromyrtus ciliata</i>	Heath-myrtle
SS	<i>Tetradlea ciliata</i>	Pink-bells
SS	<i>Dillwynia sericea</i> s.l.	Showy Parrot-pea
LH	<i>Stackhousia viminea</i>	Slender Stackhousia
LH	<i>Derwentia perfoliata</i>	Digger's Speedwell
MH	<i>Euchiton collinus</i> s.s.	Creeping Cudweed
MH	<i>Drosera peltata</i>	Pale Sundew
MH	<i>Daucus glochidiatus</i>	Australian Carrot
MH	<i>Gonocarpus elatus</i>	Tall Raspwort
MTG	<i>Dichelachne sieberiana</i>	Rough Plume-grass
MTG	<i>Poa sieberiana</i> var. <i>cyanophylla</i>	Blue-leaf Tussock-grass
MTG	<i>Juncus bufonius</i>	Toad 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>Cheilanthes sieberi</i> ssp. <i>sieberi</i>	Narrow Rock-fern

# EVC 72: Granitic Hills Woodland Highlands – Northern Fall 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
MH	<i>Centaureum erythraea</i>	Common Centaury	high	low
MNG	<i>Aira</i> spp.	Hair Grass	high	low
Und	<i>Vulpia</i> spp.	Fescue	high	low

Published by the Victorian Government Department of Sustainability and Environment September 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

## Highlands – Northern Fall bioregion

### EVC 82: Riverine Escarpment Scrub

#### Description:

Shrubland to 10 m tall with occasional emergent eucalypts. Occurs on shallow colluvial soils along rocky cliffs and slopes associated with rivers and creeks and may extend onto alluvial terraces. Characterised by a dense medium to tall shrub layer over a ground layer which can range from low to high diversity and consist of a variety of graminoids and herbs. Ferns can often be a major component of the ground stratum.

#### Canopy Cover:

%cover	Character Species	Common Name
30%	<i>Acacia melanoxylon</i>	Blackwood
	<i>Pomaderris aspera</i>	Hazel Pomaderris
	<i>Acacia dealbata</i>	Silver Wattle

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Shrub		5%	IT
Medium Shrub	8	30%	MS
Small Shrub	1	1%	SS
Prostrate Shrub	2	1%	PS
Large Herb	2	5%	LH
Medium Herb	12	20%	MH
Small or Prostrate Herb	3	5%	SH
Large Tufted Graminoid	4	15%	LTG
Medium to Small Tufted Graminoid	3	10%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Ground Fern	3	10%	GF
Scrambler or Climber	1	5%	SC
Bryophytes/Lichens	na	10%	BL

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Coprosma quadrifida</i>	Prickly Currant-bush
MS	<i>Lomatia myricoides</i>	River Lomatia
MS	<i>Leptospermum brevipes</i>	Slender Tea-tree
MS	<i>Kunzea ericoides</i>	Burgan
SS	<i>Leucopogon hookeri</i>	Mountain Beard-heath
PS	<i>Platylobium formosum</i>	Handsome Flat-pea
PS	<i>Acrotriche serrulata</i>	Honey-pots
LH	<i>Epilobium billardierianum</i> ssp. <i>hydrophilum</i>	Robust Willow-herb
LH	<i>Senecio tenuiflorus</i>	Slender Fireweed
MH	<i>Ajuga australis</i>	Austral Bugle
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
MH	<i>Lagenophora stipitata</i>	Common Bottle-daisy
MH	<i>Viola hederacea</i> sensu Willis (1972)	Ivy-leaf Violet
SH	<i>Dichondra repens</i>	Kidney-weed
SH	<i>Hydrocotyle laxiflora</i>	Stinking Pennywort
LTG	<i>Cyperus lucidus</i>	Leafy Flat-sedge
LTG	<i>Carex appressa</i>	Tall Sedge
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
LTG	<i>Poa labillardierei</i> var. <i>labillardierei</i>	Common Tussock-grass
MTG	<i>Poa sieberiana</i> var. <i>sieberiana</i>	Grey Tussock-grass
MTG	<i>Dianella tasmanica</i>	Tasman Flax-lily
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Polystichum proliferum</i>	Mother Shield-fern
GF	<i>Adiantum aethiopicum</i>	Common Maidenhair
GF	<i>Blechnum nudum</i>	Fishbone Water-fern

# EVC 82: Riverine Escarpment Scrub Highlands – Northern Fall 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>Rosa rubiginosa</i>	Sweet Briar	high	high
MS	<i>Rubus</i> sp. aff. <i>armeniacus</i>	Blackberry	high	high
MS	<i>Rubus fruticosus</i> spp. agg.	Blackberry	high	high
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Centaureum erythraea</i>	Common Centaury	high	low
MH	<i>Prunella vulgaris</i>	Self-heal	high	high
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high

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

## Highlands – Northern Fall 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 camphora</i> ssp. <i>humeana</i> <i>Eucalyptus radiata</i> s.l.	Mountain Swamp-gum Narrow-leaf Peppermint

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	2	15%	T
Medium Shrub	5	10%	MS
Small Shrub	1	1%	SS
Large Herb	3	5%	LH
Medium Herb	8	15%	MH
Small or Prostrate Herb	4	5%	SH
Large Tufted Graminoid	5	30%	LTG
Large Non-tufted Graminoid	2	5%	LNG
Medium to Small Tufted Graminoid	3	5%	MTG
Medium to Tiny Non-tufted Graminoid	3	5%	MNG
Ground Fern	4	10%	GF
Scrambler or Climber	1	1%	SC
Bryophytes/Lichens	na	20%	BL

# EVC 83: Swampy Riparian Woodland Highlands – Northern Fall bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia melanoxylon</i>	Blackwood
T	<i>Acacia dealbata</i>	Silver Wattle
MS	<i>Coprosma quadrifida</i>	Prickly Currant-bush
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Epacris breviflora</i>	Drumstick Heath
SS	<i>Rubus parvifolius</i>	Small-leaf Bramble
LH	<i>Mentha laxiflora</i>	Forest Mint
LH	<i>Epilobium gunnianum</i>	Gunn's Willow-herb
LH	<i>Urtica incisa</i>	Scrub Nettle
LH	<i>Senecio minimus</i>	Shrubby Fireweed
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
MH	<i>Geranium potentilloides</i>	Cinquefoil Cranesbill
MH	<i>Asperula scoparia</i>	Prickly Woodruff
SH	<i>Hydrocotyle hirta</i>	Hairy Pennywort
SH	<i>Dichondra repens</i>	Kidney-weed
SH	<i>Hypericum japonicum</i>	Matted St John's Wort
SH	<i>Gonocarpus micranthus ssp. micranthus</i>	Creeping Raspwort
SH	<i>Hydrocotyle tripartita</i>	Slender Pennywort
LTG	<i>Cyperus lucidus</i>	Leafy Flat-sedge
LTG	<i>Carex appressa</i>	Tall Sedge
LTG	<i>Gahnia sieberiana</i>	Red-fruit Saw-sedge
LTG	<i>Poa labillardierei</i>	Common Tussock-grass
LNG	<i>Phragmites australis</i>	Common Reed
MTG	<i>Poa ensiformis</i>	Sword Tussock-grass
MNG	<i>Microlaena stipoides var. stipoides</i>	Weeping Grass
MNG	<i>Eleocharis gracilis</i>	Slender Spike-sedge
MNG	<i>Echinopogon ovatus</i>	Common Hedgehog-grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Blechnum nudum</i>	Fishbone Water-fern
GF	<i>Polystichum proliferum</i>	Mother Shield-fern
GF	<i>Blechnum minus</i>	Soft Water-fern
TRF	<i>Dicksonia antarctica</i>	Soft Tree-fern

**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 fruticosus ssp. agg.</i>	Blackberry	high	high
LH	<i>Cirsium vulgare</i>	Spear Thistle	high	high
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Prunella vulgaris</i>	Self-heal	high	low
MH	<i>Mimulus moschatus</i>	Musk Monkey-flower	high	low
MH	<i>Lotus corniculatus</i>	Bird's-foot Trefoil	high	high
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

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

## Highlands – Northern Fall bioregion

### EVC 127: Valley Heathy Forest

#### Description:

A low, open forest to 15 m tall with a sedgy/grassy understorey with a component of small ericoid shrubs and grass-trees. Soil and moisture factors are critical in delimiting the vegetation.

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

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	2	10%	T
Medium Shrub	7	15%	MS
Small Shrub	5	5%	SS
Prostrate Shrub	2	1%	PS
Medium Herb	6	10%	MH
Small or Prostrate Herb	3	5%	SH
Large Tufted Graminoid	3	5%	LTG
Large Non-tufted Graminoid	2	20%	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



# EVC 127: Valley Heathy Forest Highlands - Northern Fall 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>Cassinia aculeata</i>	Common Cassinia
MS	<i>Daviesia leptophylla</i>	Narrow-leaf Bitter-pea
MS	<i>Cassinia arcuata</i>	Drooping Cassinia
SS	<i>Platylobium obtusangulum</i>	Common Flat-pea
SS	<i>Dillwynia cinerascens</i> s.l.	Grey Parrot-pea
SS	<i>Hovea heterophylla</i>	Common Hovea
SS	<i>Pimelea humilis</i>	Common Rice-flower
PS	<i>Acrotriche serrulata</i>	Honey-pots
PS	<i>Bossiaea prostrata</i>	Creeping Bossiaea
MH	<i>Leptorhynchos tenuifolius</i>	Wiry Buttons
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Helichrysum scorpioides</i>	Button Everlasting
SH	<i>Opercularia varia</i>	Variable Stinkweed
SH	<i>Drosera whittakeri</i> ssp. <i>aberrans</i>	Scented Sundew
SH	<i>Oxalis corniculata</i> s.l.	Yellow Wood-sorrel
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 filiformis</i>	Wattle Mat-rush
MTG	<i>Joycea pallida</i>	Silvertop Wallaby-grass
MTG	<i>Poa morrisii</i>	Soft Tussock-grass
MTG	<i>Dianella revoluta</i> s.l.	Black-anther Flax-lily
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
GF	<i>Lindsaea linearis</i>	Screw Fern
SC	<i>Billardiera scandens</i>	Common Apple-berry
SC	<i>Hardenbergia violacea</i>	Purple Coral-pea

## 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
T	<i>Pinus radiata</i>	Radiata Pine	low	high
MS	<i>Rubus fruticosus</i> spp. agg.	Blackberry	high	high
LH	<i>Plantago lanceolata</i>	Ribwort	high	low
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MTG	<i>Briza maxima</i>	Large 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

## Highlands – Northern Fall bioregion

### EVC 169: Dry Valley Forest

#### Description:

Open eucalypt forest to 20 m tall occurring along minor gullies, ephemeral streams and river flats. The overstorey may contain a range of eucalypts typical of drier environments over an understorey of scattered shrubs and a notably mossy herb-rich groundcover.

#### Large trees:

##### Species

*Eucalyptus* spp.

##### DBH(cm)

70 cm

##### #/ha

20 / ha

#### Tree Canopy Cover:

##### %cover

30%

##### Character Species

*Eucalyptus macrorhyncha*

*Eucalyptus cypellocarpa*

##### Common Name

Red Stringybark

Mountain Grey-gum

#### Understorey:

##### Life form

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

##### #Spp

4  
9  
3  
1  
4  
11  
3  
3  
4  
1  
3  
1  
2  
na

##### %Cover

5%  
15%  
30%  
10%  
1%  
5%  
15%  
5%  
5%  
15%  
1%  
10%  
5%  
5%  
10%

##### LF code

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

# EVC 169: Dry Valley Forest Highlands – Northern Fall bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Olearia argophylla</i>	Musk Daisy-bush
T	<i>Acacia dealbata</i>	Silver Wattle
MS	<i>Pimelea axiflora</i>	Bootlace Bush
MS	<i>Olearia phlogopappa</i>	Dusty Daisy-bush
MS	<i>Coprosma quadrifida</i>	Prickly Currant-bush
MS	<i>Goodia lotifolia</i>	Golden Tip
SS	<i>Tetradlea pilosa</i>	Hairy Pink-bells
SS	<i>Hibbertia obtusifolia</i>	Grey Guinea-flower
SS	<i>Olearia megalophylla</i>	Large-leaf Daisy-bush
LH	<i>Stypandra glauca</i>	Nodding Blue-lily
LH	<i>Chrysocephalum semipapposum</i>	Clustered Everlasting
MH	<i>Stellaria pungens</i>	Prickly Starwort
MH	<i>Hydrocotyle hirta</i>	Hairy Pennywort
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
SH	<i>Leptinella filicula</i>	Mountain Cotula
SH	<i>Chiloglottis gunnii s.l.</i>	Common Bird-orchid
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
LTG	<i>Gahnia sieberiana</i>	Red-fruit Saw-sedge
LTG	<i>Deyeuxia frigida</i>	Forest Bent-grass
MTG	<i>Poa australis spp. agg.</i>	Tussock Grass
MTG	<i>Libertia pulchella</i>	Pretty Grass-flag
MTG	<i>Dianella revoluta s.l.</i>	Black-anther Flax-lily
MNG	<i>Microlaena stipoides var. stipoides</i>	Weeping Grass
GF	<i>Blechnum wattsii</i>	Hard Water-fern
GF	<i>Polystichum proliferum</i>	Mother Shield-fern
SC	<i>Hardenbergia violacea</i>	Purple Coral-pea

**Recruitment:**  
Continuous

**Organic Litter:**  
40 % cover

**Logs:**  
20 m/0.1 ha.

<b>Weediness:</b>				
LF Code	Typical Weed Species	Common Name	Invasive	Impact
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Cerastium glomeratum s.l.</i>	Common Mouse-ear Chickweed	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

## Highlands – Northern Fall bioregion

### EVC 175: Grassy Woodland

#### Description:

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

#### Large trees:

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

#### Tree Canopy Cover:

%cover	Character Species	Common Name
20%	<i>Eucalyptus dives</i>	Broad-leaved Peppermint
	<i>Eucalyptus rubida</i>	Candlebark
	<i>Eucalyptus mannifera</i> ssp. <i>mannifera</i>	Brittle 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	3	20%	MS
Small Shrub	1	1%	SS
Large Herb	5	10%	LH
Medium Herb	4	10%	MH
Large Tufted Graminoid	2	1%	LTG
Medium to Small Tufted Graminoid	8	30%	MTG
Medium to Tiny Non-tufted Graminoid	1	1%	MNG
Ground Fern	2	1%	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

T	<i>Acacia dealbata</i>	Silver Wattle
MS	<i>Pultenaea juniperina</i> s.l.	Prickly Bush-pea
MS	<i>Pomaderris velutina</i>	Velvet Pomaderris
MS	<i>Brachyloma daphnoides</i>	Daphne Heath
SS	<i>Platylobium formosum</i>	Handsome Flat-pea
LH	<i>Derwentia perfoliata</i>	Digger's Speedwell
LH	<i>Senecio quadridentatus</i>	Cotton Fireweed
LH	<i>Wahlenbergia gracilis</i> s.l.	Sprawling Bluebell
LH	<i>Chrysocephalum semipapposum</i>	Clustered Everlasting
MH	<i>Geranium solanderi</i> s.l.	Austral Cranesbill
MH	<i>Crassula sieberiana</i> ssp. <i>sieberiana</i>	Sieber Crassula
MH	<i>Stellaria pungens</i>	Prickly Starwort
MH	<i>Daucus glochidiatus</i>	Australian Carrot
SH	<i>Crassula sieberiana</i>	Sieber Crassula
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
MTG	<i>Dianella revoluta</i> s.l.	Black-anther Flax-lily
MTG	<i>Luzula meridionalis</i> var. <i>flaccida</i>	Common Woodrush
MTG	<i>Lepidosperma laterale</i> var. <i>laterale</i>	Variable Sword-sedge
MTG	<i>Poa sieberiana</i> var. <i>sieberiana</i>	Grey Tussock-grass
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
GF	<i>Cheilanthes sieberi</i> ssp. <i>sieberi</i>	Narrow Rock-fern
GF	<i>Asplenium flabellifolium</i>	Necklace Fern
SC	<i>Hardenbergia violacea</i>	Purple Coral-pea

# EVC 175: Grassy Woodland Highlands – Northern Fall 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>Verbascum virgatum</i>	Twiggy Mullein	high	high
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Acetosella vulgaris</i>	Sheep Sorrel	high	high
MH	<i>Centaureum erythraea</i>	Common Centaury	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

## Highlands – Northern Fall bioregion

### EVC 185: Perched Boggy Shrubland

#### Description:

Dense shrubland to 3 m tall over a ground layer of herbs, sedges and often abundant *Sphagnum* moss occupying valleys on granitic massif plateaus at 400-600 m asl in areas with more than 900 mm annual rainfall. It occurs on all aspects of very gentle slopes above drainage lines or across hillsides between drainage lines. Soils are extremely saturated sandy clay, which may be associated with an impermeable clay layer or an hydrological phenomenon creating a soak or spring effect.

#### Life forms:

Life form	#Spp	%Cover	LF code
Medium Shrub	6	50%	MS
Large Herb	2	1%	LH
Medium Herb	6	10%	MH
Small or Prostrate Herb	2	5%	SH
Large Tufted Graminoid	4	10%	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	2	10%	GF
Bryophytes/Lichens	na	30%	BL

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Acacia pravissima</i>	Ovens Wattle
MS	<i>Baeckea utilis</i> s.s.	Mountain Baeckea
MS	<i>Goodenia ovata</i>	Hop Goodenia
PS	<i>Acrotriche prostrata</i>	Trailing Ground-berry
LH	<i>Senecio quadridentatus</i>	Cotton Fireweed
MH	<i>Lobelia anceps</i>	Angled Lobelia
MH	<i>Centella cordifolia</i>	Centella
MH	<i>Hydrocotyle hirta</i>	Hairy Pennywort
SH	<i>Gonocarpus micranthus</i> ssp. <i>micranthus</i>	Creeping Raspwort
LTG	<i>Gahnia sieberiana</i>	Red-fruit Saw-sedge
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
LTG	<i>Juncus procerus</i>	Tall Rush
LNG	<i>Tetrarrhena juncea</i>	Forest Wire-grass
MTG	<i>Juncus pauciflorus</i>	Loose-flower Rush
MTG	<i>Luzula meridionalis</i>	Common Woodrush
MTG	<i>Poa australis</i> spp. agg.	Tussock Grass
MTG	<i>Lepidosperma laterale</i>	Variable Sword-sedge
MNG	<i>Poa tenera</i>	Slender Tussock-grass
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
GF	<i>Calochlaena dubia</i>	Common Ground-fern

#### Recruitment:

Continuous

#### Organic Litter:

20 % cover

#### Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
SS	<i>Rubus ulmifolius</i>	Blackberry	high	high
LH	<i>Sonchus oleraceus</i>	Common Sow-thistle	high	low

# EVC 185: Perched Boggy Shrubland Highlands – Northern Fall 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

## Highlands – Northern Fall 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.

#### 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	10%	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
Scrambler/Climber	1	5%	SC

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Coprosma quadrifida</i>	Prickly Currant-bush
MS	<i>Acacia verticillata</i>	Prickly Moses
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
LNG	<i>Lepidosperma longitudinale</i>	Pithy Sword-sedge
MTG	<i>Triglochin procerum</i> s.l.	Water Ribbons
MNG	<i>Empodisma minus</i>	Spreading Rope-rush
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
SC	<i>Gleichenia microphylla</i>	Scrambling Coral-fern

#### Recruitment:

Continuous

#### Organic Litter:

40 % cover

# EVC 191: Riparian Scrub

## Highlands - Northern Fall bioregion

### Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LH	<i>Rumex conglomeratus</i>	Clustered Dock	high	low
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 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

## Highlands – Northern Fall bioregion

### EVC 201: Shrubby Wet Forest

#### Description:

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

#### Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	90 cm	20 / ha

#### Tree Canopy Cover:

%cover	Character Species	Common Name
40%	<i>Eucalyptus delegatensis</i> ssp. <i>delegatensis</i>	Alpine Ash
	<i>Eucalyptus obliqua</i>	Messmate Stringybark

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	2	20%	T
Medium Shrub	7	25%	MS
Small Shrub	3	10%	SS
Large Herb	2	1%	LH
Medium Herb	8	15%	MH
Small or Prostrate Herb	2	1%	SH
Large Tufted Graminoid	1	1%	LTG
Medium to Small Tufted Graminoid	6	15%	MTG
Medium to Tiny Non-tufted Graminoid	1	1%	MNG
Ground Fern	2	5%	GF
Bryophytes/Lichens	na	20%	BL

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia dealbata</i>	Silver Wattle
MS	<i>Polyscias sambucifolia</i>	Elderberry Panax
MS	<i>Coprosma hirtella</i>	Rough Coprosma
MS	<i>Daviesia ulicifolia</i>	Gorse Bitter-pea
MS	<i>Olearia phlogopappa</i>	Dusty Daisy-bush
SS	<i>Leucopogon hookeri</i>	Mountain Beard-heath
SS	<i>Ozothamnus thyrsoides</i>	Sticky Everlasting
SS	<i>Olearia megalophylla</i>	Large-leaf Daisy-bush
SS	<i>Olearia erubescens</i>	Moth Daisy-bush
LH	<i>Senecio linearifolius</i>	Fireweed Groundsel
LH	<i>Derwentia derwentiana</i>	Derwent Speedwell
LH	<i>Arthropodium milleflorum</i> s.l.	Pale Vanilla-lily
MH	<i>Lagenophora stipitata</i>	Common Bottle-daisy
MH	<i>Poranthera microphylla</i>	Small Poranthera
MH	<i>Stellaria pungens</i>	Prickly Starwort
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
SH	<i>Leptinella filicula</i>	Mountain Cotula
SH	<i>Oxalis exilis</i>	Shady Wood-sorrel
LTG	<i>Lomandra longifolia</i> ssp. <i>exilis</i>	Cluster-headed Mat-rush
LTG	<i>Deyeuxia quadriseta</i>	Reed Bent-grass
MTG	<i>Stylidium graminifolium</i> s.l.	Grass Trigger-plant
MTG	<i>Dianella tasmanica</i>	Tasman Flax-lily
MTG	<i>Luzula meridionalis</i> var. <i>flaccida</i>	Common Woodrush
MTG	<i>Deyeuxia monticola</i> var. <i>monticola</i>	Mountain Bent-grass
MNG	<i>Poa tenera</i>	Slender Tussock-grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Polystichum proliferum</i>	Mother Shield-fern



# EVC 201: Shrubby Wet Forest Highlands – Northern Fall 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>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Prunella vulgaris</i>	Self-heal	high	low

Published by the Victorian Government Department of Sustainability and Environment September 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

## Highlands – Northern Fall bioregion

### EVC 206: Sub-alpine Grassland

#### Description:

Occurs primarily in areas at altitudes of around 1200 m above sea level. Structurally and floristically this EVC is dominated by grasses. Any shrubs present tend to be small and cryptic. The fertile and highly organic soils which are generally derived from granodiorite provide a suitable substrate for a lush cover of grasses and herbs, many specific to montane/sub-alpine environments. Snow persists for several months over winter. Species richness is low, indicative of the harsh environment.

#### Life Forms:

Life form	#Spp	%Cover	LF code
Medium Shrub	1	5%	MS
Small Shrub	3	5%	SS
Prostrate Shrub	1	1%	PS
Large Herb	3	5%	LH
Medium Herb	11	20%	MH
Small or Prostrate Herb	3	10%	SH
Large Tufted Graminoid	1	1%	LTG
Medium to Small Tufted Graminoid	5	20%	MTG
Medium to Tiny Non-tufted Graminoid	2	10%	MNG
Bryophytes/Lichens	na	20%	BL
Soil Crust	na	10%	S/C

#### LF Code

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

#### Common Name

MS	<i>Baeckea gunniana</i>	Alpine Baeckea
SS	<i>Grevillea australis</i>	Alpine Grevillea
SS	<i>Leucopogon hookeri</i>	Mountain Beard-heath
SS	<i>Hovea montana</i>	Alpine Rusty-pods
PS	<i>Pimelea alpina</i>	Alpine Rice-flower
MH	<i>Asperula gunnii</i>	Mountain Woodruff
MH	<i>Celmisia asteliifolia</i> spp. agg.	Silver Daisy
MH	<i>Leptorhynchus squamatus</i>	Scaly Buttons
MH	<i>Craspedia glauca</i> spp. agg.	Common Billy-buttons
SH	<i>Scleranthus biflorus</i> s.l.	Twin-flower Knawel
SH	<i>Gonocarpus micranthus</i> ssp. <i>micranthus</i>	Creeping Raspwort
SH	<i>Cotula alpina</i>	Alpine Cotula
MTG	<i>Carex breviculmis</i>	Common Grass-sedge
MTG	<i>Poa fawcettiae</i>	Horny Snow-grass
MTG	<i>Stylidium graminifolium</i> s.l.	Grass Trigger-plant
MTG	<i>Poa costiniana</i>	Bog Snow-grass
MNG	<i>Empodisma minus</i>	Spreading Rope-rush

#### Recruitment:

Continuous

#### Organic Litter:

10% Cover

#### Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MH	<i>Acetosella vulgaris</i>	Sheep Sorrel	high	high
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
SH	<i>Trifolium repens</i> var. <i>repens</i>	White Clover	high	high

# EVC 206: Sub-alpine Grassland Highlands – Northern Fall 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

## Highlands – Northern Fall bioregion

### EVC 207: Montane Grassy Shrubland

#### Description:

A shrubland, sometimes with emergent eucalypts to 15 m tall over a ground layer dominated by grasses and forbs. It occurs on dry and exposed steep, rocky mid to upper slopes at montane elevations. Soils are shallow, dark brown stony loams to clay loams.

+ 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:

%cover	Character Species	Common Name
10%	<i>Eucalyptus pauciflora</i>	Snow Gum
	<i>Eucalyptus rubida</i>	Candlebark

#### Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree <sup>+</sup>		5%	IT
Understorey Tree or Large Shrub	2	20%	T
Mallee Tree	1	1%	MT
Medium Shrub	6	20%	MS
Small Shrub	2	5%	SS
Large Herb	2	5%	LH
Medium Herb	9	20%	MH
Small or Prostrate Herb	2	5%	SH
Large Tufted Graminoid	2	5%	LTG
Medium to Small Tufted Graminoid	6	15%	MTG
Medium to Tiny Non-tufted Graminoid	1	5%	MNG
Ground Fern	1	5%	GF
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C

# EVC 207: Montane Grassy Shrubland Highlands - Northern Fall bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia dealbata</i>	Silver Wattle
MS	<i>Brachyloma daphnoides</i>	Daphne Heath
MS	<i>Hymenanthera dentata</i>	Tree Violet
MS	<i>Grevillea lanigera</i>	Woolly Grevillea
MS	<i>Daviesia mimosoides</i> ssp. <i>mimosoides</i>	Blunt-leaf Bitter-pea
LH	<i>Chrysocephalum semipapposum</i>	Clustered Everlasting
LH	<i>Senecio linearifolius</i>	Fireweed Groundsel
LH	<i>Wahlenbergia luteola</i>	Bronze Bluebell
MH	<i>Galium gaudichaudii</i>	Rough Bedstraw
MH	<i>Geranium solanderi</i> s.l.	Austral Cranesbill
MH	<i>Stellaria pungens</i>	Prickly Starwort
SH	<i>Crassula sieberiana</i>	Australian Stonecrop
MTG	<i>Themeda triandra</i>	Kangaroo Grass
MTG	<i>Poa phillipsiana</i>	Blue Snow-grass
MTG	<i>Poa costiniana</i>	Bog Snow-grass
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
GF	<i>Adiantum aethiopicum</i>	Common Maidenhair
GF	<i>Asplenium flabellifolium</i>	Necklace Fern

**Recruitment:**  
Continuous

**Organic Litter:**  
20 % cover

**Logs:**  
15 m/0.1 ha.

<b>Weediness:</b>				
LF Code	Typical Weed Species	Common Name	Invasive	Impact
MS	<i>Rosa rubiginosa</i>	Sweet Briar	high	high
SS	<i>Rubus laciniatus</i>	Cut-leaf Bramble	high	high
MH	<i>Hypochaeris radicata</i>	Cat's Ear	high	low
MH	<i>Trifolium arvense</i> var. <i>arvense</i>	Hare's-foot Clover	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

## Highlands – Northern Fall bioregion

### EVC 210: Sub-alpine Wet Heathland

#### Description:

Virtually treeless and characterised by a dense layer of low heathy shrubs to 2 m tall, with a number of sedges and rushes in the understorey. Occurs at elevations above 1000 m, in soaks or along small streams. Rainfall is generally greater than 1000 mm per annum, and during winter, this EVC can tolerate long periods of snow cover and low temperature. Deep, peaty, sodden soils are usually covered by a layer of sphagnum moss.

#### Life forms:

Life form	#Spp	%Cover	LF code
Medium Shrub	6	30%	MS
Small Shrub	2	10%	SS
Large Herb	5	5%	LH
Medium Herb	10	15%	MH
Small or Prostrate Herb	4	10%	SH
Large Tufted Graminoid	1	1%	LTG
Medium to Small Tufted Graminoid	10	20%	MTG
Medium to Tiny Non-tufted Graminoid	4	15%	MNG
Bryophytes/Lichens	na	20%	BL

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Hakea microcarpa</i>	Small-fruit Hakea
MS	<i>Comesperma retusum</i>	Mountain Milkwort
MS	<i>Olearia glandulosa</i>	Swamp Daisy-bush
MS	<i>Leptospermum myrtifolium</i>	Myrtle Tea-tree
SS	r <i>Pultenaea fasciculata</i>	Alpine Bush-pea
SS	<i>Epacris microphylla s.l.</i>	Coral Heath
LH	<i>Senecio hispidulus</i>	Rough Fireweed
LH	<i>Senecio tenuiflorus</i>	Slender Fireweed
LH	<i>Veronica gracilis</i>	Slender Speedwell
LH	<i>Epilobium billardierianum</i>	Variable Willow-herb
MH	<i>Gratiola peruviana</i>	Austral Brooklime
MH	<i>Brachyscome scapigera</i>	Tufted Daisy
MH	<i>Lagenophora gracilis</i>	Slender Bottle-daisy
MH	<i>Craspedia glauca spp. agg.</i>	Common Billy-buttons
SH	<i>Hypericum japonicum</i>	Matted St John's Wort
SH	<i>Hydrocotyle tripartita</i>	Slender Pennywort
SH	<i>Isotoma fluviatilis ssp. australis</i>	Swamp Isotome
SH	<i>Gonocarpus micranthus ssp. micranthus</i>	Creeping Raspwort
LTG	<i>Juncus sarophorus</i>	Broom Rush
LTG	<i>Deyeuxia quadriseta</i>	Reed Bent-grass
MTG	<i>Austrodanthonia laevis</i>	Smooth Wallaby-grass
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
MTG	<i>Luzula meridionalis</i>	Common Woodrush
MTG	<i>Poa sieberiana var. sieberiana</i>	Grey Tussock-grass
MNG	<i>Empodisma minus</i>	Spreading Rope-rush
MNG	<i>Baloskion australe</i>	Mountain Cord-rush
MNG	r <i>Juncus falcatus</i>	Sickle-leaf Rush
MNG	<i>Eleocharis gracilis</i>	Slender Spike-sedge

#### Recruitment:

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

#### Organic Litter:

10% cover

# EVC 210: Sub-alpine Wet Heathland Highlands – Northern Fall bioregion

## 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>Prunella vulgaris</i>	Self-heal	high	high
MH	<i>Cerastium glomeratum s.l.</i>	Common Mouse-ear Chickweed	high	low
SH	<i>Trifolium repens var. repens</i>	White Clover	high	high
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MTG	<i>Festuca rubra</i>	Red Fescue	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

## Highlands – Northern Fall bioregion

### EVC 318: Montane Swamp

#### Description:

Forms in drainage-lines on wet alluviums at montane and sub-montane elevations where annual rainfall is in the order of 650-750 mm. The vegetation is virtually treeless but occasional eucalypt emergents may be present. Characterised by an open shrub layer and a ground layer with a diversity of sedges, grasses, herbs and ferns.

#### Life Forms:

Life form	#Spp	%Cover	LF code
Medium Shrub	5	20%	MS
Small Shrub	2	5%	SS
Large Herb	1	1%	LH
Medium Herb	3	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	4	15%	MNG
Ground Fern	1	1%	GF
Bryophytes/Lichens	na	40%	BL

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Baeckea utilis</i> s.l.	Mountain Baeckea
MS	<i>Leptospermum myrtifolium</i>	Myrtle Tea-tree
MS	<i>Epacris breviflora</i>	Drumstick Heath
MS	<i>Hakea microcarpa</i>	Small-fruit Hakea
SS	<i>Epacris microphylla</i> s.l.	Coral Heath
MH	<i>Asperula conferta</i>	Common Woodruff
SH	<i>Leptinella filicula</i>	Mountain Cotula
LTG	<i>Carex appressa</i>	Tall Sedge
MTG	<i>Schoenus apogon</i>	Common Bog-sedge
MTG	<i>Isolepis subtilissima</i>	Club-sedge
MTG	<i>Festuca asperula</i>	Graceful Fescue
MTG	<i>Poa costiniana</i>	Prickly Snow-grass
MNG	<i>Baloskion australe</i>	Mountain Cord-rush
MNG	<i>Baumea gunnii</i>	Slender Twig-sedge
MNG	<i>Empodisma minus</i>	Spreading Rope-rush
GF	<i>Blechnum penna-marina</i> ssp. <i>alpina</i>	Alpine Water-fern

#### Recruitment:

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

#### Organic Litter:

10% cover

#### Weediness:

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

# EVC 318: Montane Swamp Highlands – Northern Fall 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

## Highlands – Northern Fall bioregion

### EVC 319: Montane Herb-rich Woodland

#### Description:

Occurs on southern and eastern-facing slopes or in protected gullies at elevations of around 1000 m above sea level, and receives a high rainfall of almost 1110 mm per annum. It is subject to cold air drainage, which influences the species mix. A mixture of eucalypts to 25 m tall forms the overstorey, with Silver Wattle abundant below. The shrub layer is neither diverse nor dense. The ground layer carries a diversity of herbs, graminoids and grasses. Climbers are commonly present.

#### Large trees:

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

#### Tree Canopy Cover:

%cover	Character Species	Common Name
40%	<i>Eucalyptus radiata</i> s.l.	Narrow-leaf Peppermint
	<i>Eucalyptus delegatensis</i> ssp. <i>delegatensis</i>	Alpine Ash

#### 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	2	5%	SS
Prostrate Shrub	1	1%	PS
Large Herb	5	10%	LH
Medium Herb	12	20%	MH
Small or Prostrate Herb	3	5%	SH
Large Tufted Graminoid	1	5%	LTG
Medium to Small Tufted Graminoid	8	25%	MTG
Medium to Tiny Non-tufted Graminoid	1	1%	MNG
Ground Fern	3	10%	GF
Scrambler or Climber	2	5%	SC
Bryophytes/Lichens	na	20%	BL



# EVC 319: Montane Herb-rich Woodland Highlands – Northern Fall bioregion

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia dealbata</i>	Silver Wattle
T	<i>Notelaea ligustrina</i>	Privet Mock-olive
MS	<i>Coprosma hirtella</i>	Rough Coprosma
MS	<i>Pultenaea juniperina s.l.</i>	Prickly Bush-pea
MS	<i>Coprosma quadrifida</i>	Prickly Currant-bush
MS	<i>Exocarpos strictus</i>	Pale-fruit Ballart
SS	<i>Olearia erubescens</i>	Moth Daisy-bush
SS	<i>Leucopogon hookeri</i>	Mountain Beard-heath
SS	<i>Tetratheca ciliata</i>	Pink-bells
PS	<i>Platylobium formosum</i>	Handsome Flat-pea
LH	<i>Wahlenbergia stricta</i>	Tall Bluebell
LH	<i>Epilobium billardierianum</i>	Variable Willow-herb
LH	<i>Picris angustifolia</i>	Native Picris
LH	<i>Derwentia derwentiana</i>	Derwent Speedwell
MH	<i>Ranunculus plebeius s.l.</i>	Forest/Hairy Buttercup
MH	<i>Stellaria pungens</i>	Prickly Starwort
MH	<i>Asperula scoparia</i>	Prickly Woodruff
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
SH	<i>Hydrocotyle laxiflora</i>	Stinking Pennywort
SH	<i>Lobelia pedunculata s.l.</i>	Matted Pratia
SH	<i>Leptinella filicula</i>	Mountain Cotula
SH	<i>Oxalis exilis</i>	Shady Wood-sorrel
LTG	<i>Poa helmsii</i>	Tall Mountain Tussock-grass
LTG	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
MTG	<i>Poa sieberiana</i>	Grey Tussock-grass
MTG	<i>Carex breviculmis</i>	Common Grass-sedge
MTG	<i>Poa ensiformis</i>	Sword Tussock-grass
MTG	<i>Dianella tasmanica</i>	Tasman Flax-lily
MNG	<i>Echinopogon ovatus</i>	Common Hedgehog-grass
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Polystichum proliferum</i>	Mother Shield-fern
GF	<i>Asplenium flabellifolium</i>	Necklace Fern
SC	<i>Glycine clandestina</i>	Twining Glycine
SC	<i>Clematis aristata</i>	Mountain Clematis

**Recruitment:**  
Continuous

**Organic Litter:**  
20 % cover

**Logs:**  
15 m/0.1 ha.

<b>Weediness:</b>				
LF Code	Typical Weed Species	Common Name	Invasive	Impact
MH	<i>Hypochaeris radicata</i>	Cat's Ear	high	low
SH	<i>Trifolium repens var. repens</i>	White Clover	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

## Highlands – Northern Fall bioregion

### EVC 702.61: *Limestone Montane Grassland*

#### Description:

Occurs on Silurian limestone at montane elevations around 1000 m above sea level. Structurally and floristically an open grassland with scattered, isolated patches of shrubs over a ground layer dominated by herbs and grasses.

#### Life Forms:

Life form	#Spp	%Cover	LF code
Medium Shrub	2	5%	MS
Small Shrub	1	1%	SS
Prostrate Shrub	1	1%	PS
Large Herb	3	5%	LH
Medium Herb	11	20%	MH
Small or Prostrate Herb	3	10%	SH
Medium to Small Tufted Graminoid	6	20%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Ground Fern	2	5%	GF
Bryophytes/Lichens	na	20%	BL
Soil Crust	na	10%	S/C

LF Code	Species typical of at least part of EVC range	Common Name
MS	<i>Olearia alpicola</i>	Alpine Daisy-bush
MS	Rr <i>Discaria pubescens</i>	Hairy Anchor Plant
MS	<i>Exocarpos strictus</i>	Pale-fruit Ballart
PS	<i>Muehlenbeckia axillaris</i>	Matted Lignum
LH	<i>Senecio quadridentatus</i>	Cotton Fireweed
MH	<i>Geranium solanderi</i> s.l.	Austral Cranesbill
MH	<i>Asperula conferta</i>	Common Woodruff
MH	<i>Daucus glochidiatus</i>	Australian Carrot
MH	Vv <i>Thesium australe</i>	Austral Toad-flax
SH	<i>Scleranthus diander</i>	Tufted Knawel
SH	k <i>Desmodium varians</i>	Slender Tick-trefoil
MTG	<i>Themeda triandra</i>	Kangaroo Grass
MTG	v <i>Poa hookeri</i>	Hooker's Tussock-grass
MTG	<i>Poa sieberiana</i> var. <i>hirtella</i>	Grey Tussock-grass
MTG	<i>Carex breviculmis</i>	Common Grass-sedge
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
GF	<i>Asplenium flabellifolium</i>	Necklace Fern
GF	r <i>Asplenium trichomanes</i> ssp. <i>quadrivalens</i>	Common Spleenwort

#### Recruitment:

Continuous

#### Organic Litter:

10% Cover

#### Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MNG	<i>Aira caryophylla</i>	Silvery Hair-grass	high	high
LH	<i>Verbascum virgatum</i>	Twiggy Mullein	high	high
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

# EVC 702.61: *Limestone* Montane Grassland Highlands - Northern Fall 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

## Highlands – Northern Fall bioregion

### EVC 702.62: Montane Grassland

#### Description:

Occurs primarily in areas at altitudes of around 700 to 1000 m above sea level. Structurally and floristically this EVC is dominated by grasses. The fertile and highly organic soils which are generally derived from Quaternary alluvial flats provide a suitable substrate for a lush cover of grasses and herbs.

#### Life Forms:

Life form	#Spp	%Cover	LF code
Prostrate Shrub	1	1%	PS
Large Herb	3	5%	LH
Medium Herb	11	20%	MH
Small or Prostrate Herb	3	10%	SH
Medium to Small Tufted Graminoid	6	20%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Bryophytes/Lichens	na	20%	BL
Soil Crust	na	10%	S/C
<b>Total understorey projective foliage cover</b>		<b>90%</b>	

LF Code	Species typical of at least part of EVC range	Common Name
PS	<i>Wilsonia rotundifolia</i>	Round-leaf Wilsonia
LH	<i>Chrysocephalum apiculatum</i> s.l.	Common Everlasting
LH	<i>Wahlenbergia luteola</i>	Bronze Bluebell
MH	<i>Acaena agnifolia</i>	Hairy Sheep's Burr
MH	<i>Goodenia pinnatifida</i>	Cut-leaf Goodenia
MH	<i>Leptorhynchus squamatus</i>	Scaly Buttons
MH	<i>Cynoglossum suaveolens</i>	Sweet Hound's-tongue
SH	<i>Desmodium gunnii</i>	Southern Tick-trefoil
MTG	<i>Austrodanthonia penicillata</i>	Slender Wallaby-grass
MTG	<i>Austrostipa scabra</i> ssp. <i>scabra</i>	Rough Spear-grass
MTG	<i>Elymus scaber</i> var. <i>scaber</i>	Common Wheat-grass
MTG	<i>Carex inversa</i>	Knob Sedge

#### Recruitment:

Continuous

#### Organic Litter:

10% Cover

#### Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MH	<i>Acetosella vulgaris</i>	Sheep Sorrel	high	high
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
SH	<i>Trifolium repens</i> var. <i>repens</i>	White Clover	high	high

# EVC 702.62: Montane Grassland Highlands - Northern Fall 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

## Highlands Northern Fall Bioregion

### EVC 937: Swampy Woodland

#### Description:

Open eucalypt woodland to 15 m tall with ground-layer dominated by tussock grasses and/or sedges and often rich in herbs. Occurs on poorly drained, seasonally waterlogged heavy soils, primarily on swamp deposits but extending to suitable substrates within some landscapes of sedimentary origin.

#### Large Trees:

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

#### Tree Canopy Cover:

%cover	Character Species	Common Name
15%	<i>Eucalyptus radiata s.l.</i>	Narrow-leaf Peppermint
	<i>Eucalyptus camphora subsp. humeana</i>	Mountain Swamp-gum
	<i>Eucalyptus ovata</i>	Swamp Gum

#### Understorey:

Lifeform	#Spp	%Cover	LF Code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	1	5%	T
Medium Shrub	4	20%	MS
Small Shrub	2	5%	SS
Large Herb	2	10%	LH
Medium Herb	5	10%	MH
Small or Prostrate Herb	2	5%	SH
Large Tufted Graminoid	2	10%	LTG
Large Non-Tufted Graminoid	1	10%	LNG
Medium to Small Tufted Graminoid	3	10%	MTG
Medium to Tiny Non-Tufted Graminoid	2	5%	MNG
Ground Fern	2	10%	GF
Bryophytes/Lichens		20%	BL

# EVC 937: Swampy Woodland

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia melanoxylon</i>	Blackwood
T	<i>Melaleuca ericifolia</i>	Swamp Paperbark
MS	<i>Coprosma quadrifida</i>	Prickly Currant-bush
MS	<i>Epacris impressa</i>	Common Heath
MS	<i>Leptospermum continentale</i>	Prickly Tea-tree
MS	<i>Ozothamnus ferrugineus</i>	Tree Everlasting
SS	<i>Hibbertia riparia</i>	Erect Guinea-flower
LH	<i>Pterostylis longifolia</i> s.l.	Tall Greenhood
LH	<i>Senecio minimus</i>	Shrubby Fireweed
MH	<i>Centella cordifolia</i>	Centella
MH	<i>Gonocarpus tetragynus</i>	Common Raspwort
MH	<i>Gratiola peruviana</i>	Austral Brooklime
MH	<i>Mazus pumilio</i>	Swamp Mazus
SH	<i>Dichondra repens</i>	Kidney-weed
SH	<i>Opercularia varia</i>	Variable Stinkweed
LTG	<i>Carex appressa</i>	Tall Sedge
LTG	<i>Gahnia sieberiana</i>	Red-fruit Saw-sedge
LNG	<i>Gahnia radula</i>	Thatch Saw-sedge
LNG	<i>Lepidosperma longitudinale</i>	Pithy Sword-sedge
MTG	<i>Lepidosperma laterale</i>	Variable Sword-sedge
MTG	<i>Lomandra filiformis</i>	Wattle Mat-rush
MTG	<i>Schoenus apogon</i>	Common Bog-sedge
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
MNG	<i>Poa tenera</i>	Slender Tussock-grass
GF	<i>Lindsaea linearis</i>	Screw Fern

## Recruitment:

Continuous.

## Organic Litter:

20 % cover

## Logs:

15 m/0.1ha.

## Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
LH	<i>Cirsium vulgare</i>	Spear Thistle	high	high
SC	<i>Rubus fruticosus</i> spp. agg.	Blackberry	high	high
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high	high
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high	low
MH	<i>Allium triquetrum</i>	Three-corner Garlic	high	high
MTG	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	high	high

Published by the Victorian Government Department of Sustainability and Environment November 2009

© 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)