

### EVC/Bioregion Benchmark for Vegetation Quality Assessment

Greater Grampians 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).

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| **Large trees:** |  | |
| **Species**  Eucalyptus spp. | **DBH(cm)**  70 cm | **#/ha**  15 / ha |

Tree Canopy Cover:

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| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 15% | r Eucalyptus sabulosa  Eucalyptus obliqua | Wimmera Scentbark  Messmate Stringybark |
|  | Eucalyptus ovata | Swamp Gum |

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

Ecological Vegetation Class bioregion benchmark

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| --- | --- |
| EVC 3: Damp Sands Herb-rich Woodland - Greater Grampians bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  T Acacia mearnsii Black Wattle  T Acacia melanoxylon Blackwood  T Acacia retinodes var. retinodes Wirilda  MS Leptospermum continentale Prickly Tea-tree  MS Banksia marginata Silver Banksia  MS Coprosma quadrifida Prickly Coprosma  MS Leptospermum scoparium Manuka  SS Astroloma conostephioides Flame Heath  SS Hibbertia riparia Erect Guinea-flower  SS Amperea xiphoclada var. xiphoclada Broom Spurge  PS Acrotriche serrulata Honey-pots  PS Astroloma humifusum Cranberry Heath  MH Lagenophora stipitata Common Lagenifera  MH Viola hederacea sensu Willis (1972) Ivy-leaf Violet  MH Hypericum gramineum Small St John’s Wort  MH Poranthera microphylla Small Poranthera  SH Dichondra repens Kidney-weed  SH Asperula conferta Common Woodruff  SH Hydrocotyle foveolata Yellow Pennywort  LTG Gahnia sieberiana Red-fruit Saw-sedge  LTG Carex appressa Tall Sedge  MTG Luzula meridionalis var. flaccida Common Woodrush  MTG Lomandra longifolia Spiny-headed Mat-rush  MNG Microlaena stipoides var. stipoides Weeping Grass  GF Pteridium esculentum Austral Bracken  GF Asplenium flabellifolium Necklace Fern  **Recruitment:**  Continuous  **Organic Litter:**  40 % cover  **Logs:**  15 m/0.1 ha.  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  MH Hypochoeris radicata Cat's Ear high low  MH Anagallis arvensis Pimpernel high low  MTG Briza minor Lesser Quaking-grass high low  MNG Aira elegantissima Delicate Hair-grass high low  MNG Aira caryophyllea Silvery 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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 6: Sand Heathland

Description:

A generally treeless heath occurring on deep infertile sands with occasional scattered emergent eucalypts. Consists of a diverse, low, dense heathy shrub layer. Herbs and grasses are notably absent or of low frequency in the ground layer but a number of restionaceous species are often present.

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| **Life forms: Life form** | **#Spp** | **%Cover** | **LF code** |
| Medium Shrub | 9 | 45% | MS |
| Small Shrub | 9 | 20% | SS |
| Prostrate Shrub | 2 | 1% | PS |
| Large Herb | 1 | 1% | LH |
| Medium Herb | 5 | 10% | MH |
| Small or Prostrate Herb | 2 | 1% | SH |
| Large Tufted Graminoid | 2 | 10% | LTG |
| Large Non-tufted Graminoid | 1 | 5% | LNG |
| Medium to Small Tufted Graminoid | 5 | 15% | MTG |
| Medium to Tiny Non-tufted Graminoid | 3 | 15% | MNG |
| Scrambler or Climber | 1 | 1% | SC |
| Bryophytes/Lichens | na | 10% | BL |
| Soil Crust | na | 10% | S/C |

|  |  |  |
| --- | --- | --- |
| **LF Code**  MS | **Species typical of at least part of EVC range**  Leptospermum myrsinoides | **Common Name**  Heath Tea-tree |
| MS | Banksia marginata | Silver Banksia |
| MS | Epacris impressa | Common Heath |
| MS | Leptospermum continentale | Prickly Tea-tree |
| SS | Dillwynia glaberrima | Smooth Parrot-pea |
| SS | Leucopogon virgatus | Common Beard-heath |
| SS | Pimelea humilis | Common Rice-flower |
| SS | Astroloma conostephioides | Flame Heath |
| PS | Styphelia adscendens | Golden Heath |
| MH | Gonocarpus tetragynus | Common Raspwort |
| MH | Goodenia geniculata | Bent Goodenia |
| MH | Drosera peltata ssp. peltata | Pale Sundew |
| LTG | Xanthorrhoea australis | Austral Grass-tree |
| LTG | Austrostipa mollis | Supple Spear-grass |
| LNG | Gahnia radula | Thatch Saw-sedge |
| MTG | Lepidosperma carphoides | Black Rapier-sedge |
| MTG | Amphipogon strictus var. setifer | Grey-beard Grass |
| MTG | Lomandra sororia | Small Mat-rush |
| MTG | Austrodanthonia setacea | Bristly Wallaby-grass |
| MNG | Hypolaena fastigiata | Tassel Rope-rush |
| MNG | Leptocarpus tenax | Slender Twine-rush |
| MNG | Lepyrodia muelleri | Common Scale-rush |
| TTG | Schoenus breviculmis | Matted Bog-sedge |
| SC | Cassytha glabella | Slender Dodder-laurel |
| SC | Grevillea aquifolium | Variable Prickly Grevillea |

Recruitment:

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

Organic Litter:

20% cover

Weediness:

There are no consistent weeds in this EVC.

Ecological Vegetation Class bioregion benchmark

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| EVC 6: Sand Heathland - Greater Grampians bioregion | |
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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 8: Wet Heathland

Description:

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

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| **Life forms: Life form** | **#Spp** | **%Cover** | **LF code** |
| Medium Shrub | 8 | 35% | MS |
| Small Shrub | 5 | 10% | SS |
| Prostrate Shrub | 1 | 1% | PS |
| Large Herb | 2 | 5% | LH |
| Medium Herb | 5 | 10% | MH |
| Small or Prostrate Herb | 2 | 1% | SH |
| Large Tufted Graminoid | 3 | 15% | LTG |
| Large Non-tufted Graminoid | 1 | 5% | LNG |
| Medium to Small Tufted Graminoid | 5 | 10% | MTG |
| Medium to Tiny Non-tufted Graminoid | 5 | 15% | MNG |
| Tiny Tufted Graminoid | 1 | 1% | TTG |
| Ground Fern | 2 | 5% | GF |
| Scrambler or Climber | 1 | 1% | SC |
| Bryophytes/Lichens | na | 20% | BL |

|  |  |  |  |
| --- | --- | --- | --- |
| **LF Code**  MS |  | **Species typical of at least part of EVC range**  Leptospermum continentale | **Common Name**  Prickly Tea-tree |
| MS |  | Melaleuca squarrosa | Scented Paperbark |
| MS |  | Banksia marginata | Silver Banksia |
| MS |  | Sprengelia incarnata | Pink Swamp-heath |
| SS |  | Dillwynia glaberrima | Smooth Parrot-pea |
| SS |  | Dillwynia sericea s.l. | Showy Parrot-pea |
| SS | R r | Pultenaea luehmannii | Thready Bush-pea |
| SS |  | Tetratheca ciliata | Pink-bells |
| LH |  | Xyris operculata | Tall Yellow-eye |
| MH |  | Selaginella uliginosa | Swamp Selaginella |
| MH |  | Gonocarpus tetragynus | Common Raspwort |
| MH |  | Drosera peltata ssp. peltata | Pale Sundew |
| MH |  | Drosera binata | Forked Sundew |
| SH |  | Drosera whittakeri ssp. aberrans | Scented Sundew |
| SH |  | Drosera pygmaea | Tiny Sundew |
| LTG |  | Xanthorrhoea australis | Austral Grass-tree |
| LTG |  | Gymnoschoenus sphaerocephalus | Button Grass |
| LTG |  | Xanthorrhoea minor ssp. lutea | Small Grass-tree |
| LNG |  | Gahnia radula | Thatch Saw-sedge |
| MTG |  | Eurychorda complanata | Flat Cord-rush |
| MTG |  | Patersonia occidentalis | Long Purple-flag |
| MTG |  | Stylidium graminifolium s.l. | Grass Trigger-plant |
| MTG |  | Tetraria capillaris | Hair Sedge |
| MNG |  | Leptocarpus tenax | Slender Twine-rush |
| MNG |  | Empodisma minus | Spreading Rope-rush |
| MNG |  | Sporadanthus tasmanicus | Branching Scale-rush |
| MNG |  | Lepyrodia muelleri | Common Scale-rush |
| GF |  | Lindsaea linearis | Screw Fern |
| SC |  | Cassytha glabella | Slender Dodder-laurel |

Ecological Vegetation Class bioregion benchmark

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| EVC 8: Wet Heathland - Greater Grampians bioregion | |
|  | **Recruitment:**  Episodic/Fire. Desirable period between disturbances is 30 years.  **Organic Litter:**  20% cover  **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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians 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.

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| **Large trees:** |  | |
| **Species**  Eucalyptus spp. | **DBH(cm)**  70 cm | **#/ha**  20 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 30% | Eucalyptus baxteri s.l.  Eucalyptus obliqua  r Eucalyptus alaticaulis | Brown Stringybark  Messmate Stringybark Grampians Grey-gum |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form**  Immature Canopy Tree | **#Spp** | **%Cover**  5% | **LF code**  IT |
| Understorey Tree or Large Shrub | 2 | 10% | T |
| Medium Shrub | 14 | 30% | MS |
| Small Shrub | 6 | 10% | SS |
| Prostrate Shrub | 2 | 5% | PS |
| Large Herb | 1 | 1% | LH |
| Medium Herb | 8 | 15% | MH |
| Small or Prostrate Herb | 2 | 5% | SH |
| Large Tufted Graminoid | 2 | 5% | LTG |
| Large Non-tufted Graminoid | 1 | 5% | LNG |
| Medium to Small Tufted Graminoid | 5 | 10% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 5% | MNG |
| Ground Fern | 2 | 5% | GF |
| Scrambler or Climber | 3 | 5% | SC |
| Bryophytes/Lichens | na | 10% | BL |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 16: Lowland Forest - Greater Grampians bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  T Acacia melanoxylon Blackwood  MS Epacris impressa Common Heath  MS Banksia marginata Silver Banksia  MS Correa reflexa Common Correa  MS Pultenaea scabra Rough Bush-pea  SS Tetratheca ciliata Pink-bells  SS Hovea heterophylla Common Hovea  SS Pimelea humilis Common Rice-flower  SS Platylobium obtusangulum Common Flat-pea  PS Acrotriche serrulata Honey-pots  PS Styphelia adscendens Golden Heath  MH Viola hederacea sensu Entwisle (1996) Ivy-leaf Violet  MH Platysace heterophylla Slender Platysace  MH Drosera peltata ssp. auriculata Tall Sundew  MH Helichrysum scorpioides Button Everlasting  SH Chiloglottis gunnii s.l. Common Bird-orchid  SH Opercularia varia Variable Stinkweed  LTG Xanthorrhoea australis Austral Grass-tree  LTG Lomandra longifolia Spiny-headed Mat-rush  LTG Gahnia sieberiana Red-fruit Saw-sedge  MTG Lomandra filiformis Wattle Mat-rush  MTG Dianella revoluta s.l. Black-anther Flax-lily  MTG Lepidosperma semiteres Wire Rapier-sedge  MTG Lepidosperma laterale Variable Sword-sedge  MNG Microlaena stipoides var. stipoides Weeping Grass  GF Pteridium esculentum Austral Bracken  SC Cassytha pubescens s.s. Downy Dodder-laurel  SC Comesperma volubile Love Creeper  SC Clematis aristata Mountain Clematis  SC Billardiera scandens Common Apple-berry  SC r Billardiera bignoniacea Orange Bell-climber  **Recruitment:**  Continuous  **Organic Litter:**  40 % 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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 18: Riparian Forest

Description:

A tall forest along 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 to 30 m tall, but also has an open to sparse secondary tree layer of wattles and scattered dense patches of shrubs, ferns, grasses and herbs.

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| **Large trees:** |  | |
| **Species**  Eucalyptus spp. | **DBH(cm)**  80 cm | **#/ha**  20 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 40% | Eucalyptus obliqua  Eucalyptus cypellocarpa Eucalyptus baxteri s.l. | Messmate Stringybark  Mountain Grey-gum Brown Stringybark |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form**  Immature Canopy Tree | **#Spp** | **%Cover**  5% | **LF code**  IT |
| Understorey Tree or Large Shrub | 2 | 10% | T |
| Medium Shrub | 8 | 20% | MS |
| Small Shrub | 2 | 1% | SS |
| Medium Herb | 3 | 5% | MH |
| Small or Prostrate Herb | 1 | 1% | SH |
| Large Tufted Graminoid | 4 | 20% | LTG |
| Medium to Small Tufted Graminoid | 3 | 5% | MTG |
| Medium to Tiny Non-tufted Graminoid | 3 | 5% | MNG |
| Ground Fern | 5 | 25% | GF |
| Tree Fern | 1 | 5% | TRF |
| Scrambler or Climber | 1 | 1% | SC |
| Bryophytes/Lichens | na | 20% | BL |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 18: Riparian Forest - Greater Grampians bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  T Acacia melanoxylon Blackwood  MS Melaleuca squarrosa Scented Paperbark  MS Coprosma hirtella Rough Coprosma  MS Leptospermum lanigerum Woolly Tea-tree  MS Pultenaea juniperina s.l. Prickly Bush-pea  SS Olearia erubescens Moth Daisy-bush  SS Tetratheca ciliata Pink-bells  SS Daviesia brevifolia Leafless Bitter-pea  SS k Olearia speciosa Netted Daisy-bush  LH Ixodia achillaeoides Ixodia  MH Gonocarpus humilis Shade Raspwort  MH Euchiton involucratus s.s. Star Cudweed  MH Viola hederacea sensu Willis (1972) Ivy-leaf Violet  MH Viola hederacea sensu Entwisle (1996) Ivy-leaf Violet  SH Lobelia pedunculata s.l. Matted Pratia  SH Mitrasacme pilosa Hairy Mitrewort  LTG Gahnia sieberiana Red-fruit Saw-sedge  LTG Lepidosperma elatius Tall Sword-sedge  LTG Juncus vaginatus Clustered Rush  LTG Lepidosperma laterale var. majus Variable Sword-sedge  MTG Tetraria capillaris Hair Sedge  MTG Poa clelandii Noah's Ark  MTG Isolepis inundata Swamp Club-sedge  MNG Microlaena stipoides var. stipoides Weeping Grass  MNG Empodisma minus Spreading Rope-rush  MNG Schoenus lepidosperma Slender Bog-sedge  MNG Eleocharis pusilla Small Spike-sedge  GF Pteridium esculentum Austral Bracken  GF Blechnum wattsii Hard Water-fern  GF Sticherus tener s.l. Silky Fan-fern  GF Blechnum nudum Fishbone Water-fern  TRF Todea barbara Austral King-fern  SC Grevillea aquifolium Variable Prickly Grevillea  SC Clematis aristata Mountain Clematis  SC r Billardiera bignoniacea Orange Bell-climber  **Recruitment:**  Continuous  **Organic Litter:**  50 % cover  **Logs:**  30 m/0.1 ha.  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  MH Hypochoeris radicata Cat's Ear high low  LNG Holcus lanatus Yorkshire Fog high high  MTG Juncus bulbosus Bulbous Rush 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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 19: Riparian Shrubland

Description:

Diverse, medium to tall shrubland to 5 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 native species which survive on the bare sands or in rock crevices.

|  |  |  |  |
| --- | --- | --- | --- |
| **Life forms: Life form** | **#Spp** | **%Cover** | **LF code** |
| Medium Shrub | 6 | 40% | MS |
| Large Herb | 2 | 5% | LH |
| Medium Herb | 6 | 10% | MH |
| Small or Prostrate Herb | 2 | 5% | SH |
| Large Tufted Graminoid | 3 | 10% | LTG |
| Medium to Small Tufted Graminoid | 3 | 10% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 1% | MNG |
| Ground Fern | 2 | 5% | GF |
| Scrambler or Climber | 2 | 5% | SC |
| Bryophytes/Lichens | na | 10% | BL |

|  |  |  |
| --- | --- | --- |
| **LF Code**  MS | **Species typical of at least part of EVC range**  Leptospermum lanigerum | **Common Name**  Woolly Tea-tree |
| MS | Hymenanthera dentata s.l. | Tree Violet |
| LH | Persicaria decipiens | Slender Knotweed |
| MH | Hydrocotyle hirta | Hairy Pennywort |
| MH | Poranthera microphylla | Small Poranthera |
| MH | Oxalis perennans | Grassland Wood-sorrel |
| SH | Dichondra repens | Kidney-weed |
| LTG | Carex appressa | Tall Sedge |
| LTG | Poa labillardierei | Common Tussock-grass |
| LTG | Lomandra longifolia | Spiny-headed Mat-rush |
| MTG | Lepidosperma laterale | Variable Sword-sedge |
| MTG | Dianella revoluta s.l. | Black-anther Flax-lily |
| MNG | Microlaena stipoides var. stipoides | Weeping Grass |
| GF | Blechnum nudum | Fishbone Water-fern |
| SC | Clematis microphylla | Small-leaved Clematis |

Recruitment:

Episodic/flood – desirable period between flood events is 5 years.

Organic Litter:

20% cover

Logs:

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

Ecological Vegetation Class bioregion benchmark

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| --- | --- |
| EVC 19: Riparian Shrubland – Greater Grampians bioregion | |
|  | **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  MS Rosa rubiginosa Sweet Briar low high MS Rubus fruticosus spp. agg. Blackberry high high LH Conium maculatum Hemlock high high  LH Conyza bonariensis Flaxleaf Fleabane high low  LH Carduus tenuiflorus Winged Thistle high high  LH Sonchus asper s.l. Rough Sow-thistle high low  LH Plantago lanceolata Ribwort high low  LH Rumex crispus Curled Dock high low  MH Hypochoeris radicata Cat's Ear high low  MH Prunella vulgaris Self-heal high low MH Trifolium arvense var. arvense Hare's-foot Clover high low MH Anagallis arvensis Pimpernel high low  MH Euphorbia peplus Petty Spurge high low  MH Silene gallica French Catchfly high low  MH Petrorhagia nanteuilii Childling Pink high low MH Gamochaeta purpurea s.l. Purple Cudweed high low MH Centaurium erythraea Common Centaury high low  SH Modiola caroliniana Red-flower Mallow high low  LNG Holcus lanatus Yorkshire Fog high high  MTG Cyperus eragrostis Drain Flat-sedge high high  MTG Bromus catharticus Prairie Grass high low  MTG Vulpia bromoides Squirrel-tail Fescue high low MTG Bromus hordeaceus ssp. hordeaceus Soft Brome high low MTG Bromus diandrus Great Brome high low  MNG Aira caryophyllea Silvery Hair-grass high low  SC Vinca major Blue Periwinkle high high  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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians 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**  Eucalyptus spp. | **DBH(cm)**  60 cm | **#/ha**  20 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 30% | Eucalyptus baxteri s.l.  Eucalyptus obliqua | Brown Stringybark  Messmate Stringybark |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form**  Immature Canopy Tree | **#Spp** | **%Cover**  5% | **LF code**  IT |
| Understorey Tree or Large Shrub | 1 | 5% | T |
| Medium Shrub | 13 | 25% | MS |
| Small Shrub | 12 | 20% | SS |
| Prostrate Shrub | 3 | 5% | PS |
| Large Herb | 1 | 1% | LH |
| Medium Herb | 10 | 20% | MH |
| Small or Prostrate Herb | 3 | 5% | SH |
| Large Tufted Graminoid | 1 | 5% | LTG |
| Large Non-tufted Graminoid | 2 | 5% | LNG |
| Medium to Small Tufted Graminoid | 7 | 10% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 5% | MNG |
| Ground Fern | 1 | 1% | GF |
| Scrambler or Climber | 2 | 5% | SC |
| Bryophytes/Lichens | na | 10% | BL |
| Soil Crust | na | 10% | S/C |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 20: Heathy Dry Forest - Greater Grampians bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  T Exocarpos cupressiformis Cherry Ballart  MS Epacris impressa Common Heath  MS Correa reflexa Common Correa  MS Banksia marginata Silver Banksia  MS Leptospermum myrsinoides Heath Tea-tree  SS Tetratheca ciliata Pink-bells  SS Platylobium obtusangulum Common Flat-pea  SS Leucopogon virgatus Common Beard-heath  SS Hovea heterophylla Common Hovea  PS Acrotriche serrulata Honey-pots  PS Astroloma humifusum Cranberry Heath  PS Styphelia adscendens Golden Heath  PS Xanthosia pusilla spp. agg. Heath Xanthosia  MH Gonocarpus tetragynus Common Raspwort  MH Helichrysum scorpioides Button Everlasting  MH Drosera peltata ssp. auriculata Tall Sundew  MH Craspedia glauca spp. agg. Common Billy-buttons  SH Drosera whittakeri ssp. aberrans Scented Sundew  SH Opercularia varia Variable Stinkweed  SH Viola cleistogamoides Hidden Violet  LTG Xanthorrhoea australis Austral Grass-tree  LNG Gahnia radula Thatch Saw-sedge  LNG Austrostipa muelleri Wiry Spear-grass  MTG Dianella revoluta s.l. Black-anther Flax-lily  MTG Lepidosperma semiteres Wire Rapier-sedge  MTG Lomandra filiformis Wattle Mat-rush  MTG Lomandra micrantha s.l. Small-flower Mat-rush  MNG Microlaena stipoides var. stipoides Weeping Grass  MNG Hypolaena fastigiata Tassel Rope-rush  GF Pteridium esculentum Austral Bracken  SC Cassytha pubescens s.s. Downy Dodder-laurel  SC Cassytha glabella Slender Dodder-laurel  SC Grevillea aquifolium Variable Prickly Grevillea  SC Comesperma volubile Love Creeper  SC Billardiera scandens Common Apple-berry  **Recruitment:**  Episodic/Fire. Desirable period between disturbances is 20 years.  **Organic Litter:**  20 % cover  **Logs:**  20 m/0.1 ha.  **Weediness:**  There are no consistent weeds in this EVC.  Published by the Victorian Government Department of Sustainability and Environment 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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 22: Grassy Dry Forest

Description:

Occurs on the upper scree and scarp slopes of the Grampians range. 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.

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species**  Eucalyptus spp. | **DBH(cm)**  60 cm | **#/ha**  20 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 30% | Eucalyptus macrorhyncha  Eucalyptus obliqua | Red Stringybark  Messmate Stringybark |

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

**Recruitment:**

Continuous

Organic Litter:

20 % cover

Logs:

20 m/0.1 ha.

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 22: Grassy Dry Forest - Greater Grampians bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  T Acacia mearnsii Black Wattle  T Acacia melanoxylon Blackwood  MS Monotoca scoparia Prickly Broom-heath  MS Epacris impressa Common Heath  MS Ozothamnus obcordatus Grey Everlasting  MS Grevillea alpina Cat's Claw Grevillea  SS Pimelea humilis Common Rice-flower  SS Tetratheca ciliata Pink-bells  SS Hovea heterophylla Common Hovea  SS Dillwynia sericea s.l. Showy Parrot-pea  PS Astroloma humifusum Cranberry Heath  PS Acrotriche serrulata Honey-pots  PS Bossiaea prostrata Creeping Bossiaea  PS Styphelia adscendens Golden Heath  LH Wahlenbergia stricta Tall Bluebell  LH Arthropodium strictum s.l. Chocolate Lily  LH Thelymitra ixioides s.l. Spotted Sun-orchid  LH Gastrodia sesamoides s.l. Cinnamon Bells  MH Gonocarpus tetragynus Common Raspwort  MH Drosera peltata ssp. auriculata Tall Sundew  MH Burchardia umbellata Milkmaids  MH Hypericum gramineum Small St John's Wort  SH Hydrocotyle laxiflora Stinking Pennywort  SH Viola cleistogamoides Hidden Violet  SH Opercularia varia Variable Stinkweed  SH Oxalis exilis Shady Wood-sorrel  LTG Xanthorrhoea australis Austral Grass-tree  LTG Deyeuxia quadriseta Reed Bent-grass  LTG Austrostipa mollis Supple Spear-grass  LTG Gahnia sieberiana Red-fruit Saw-sedge  MTG Poa sieberiana var. sieberiana Grey Tussock-grass  MTG Lomandra filiformis Wattle Mat-rush  MTG Dichelachne rara Common Plume-grass  MTG Lomandra nana Dwarf Mat-rush  MNG Microlaena stipoides var. stipoides Weeping Grass  MNG Caustis flexuosa Curly Wig  GF Cheilanthes austrotenuifolia Green Rock-fern  GF Pteridium esculentum Austral Bracken  SC Thysanotus patersonii Twining Fringe-lily  SC Billardiera scandens Common Apple-berry  SC Comesperma volubile Love Creeper  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  LH Centaurium tenuiflorum Slender Centaury high low MH Hypochoeris radicata Cat's Ear high low MH Hypochoeris glabra Smooth Cat's-ear high low  MTG Vulpia bromoides Squirrel-tail Fescue high low  MNG Aira elegantissima Delicate Hair-grass high low  Published by the Victorian Government Department of Sustainability and Environment May 2004  © The State of Victoria Department of Sustainability and Environment 2004  This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:   * the copyright owner is acknowledged; * no official connection is claimed; * the material is made available without charge or at cost; and * the material is not subject to inaccurate, misleading or derogatory treatment.   Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.  For more information contact: Customer Service Centre, 136 186  This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians 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**  Eucalyptus spp. | **DBH(cm)**  70 cm | **#/ha**  20 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 40% | Eucalyptus obliqua  Eucalyptus cypellocarpa Eucalyptus ovata | Messmate Stringybark  Mountain Grey-gum Swamp Gum |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form**  Immature Canopy Tree | **#Spp** | **%Cover**  5% | **LF code**  IT |
| Understorey Tree or Large Shrub | 2 | 10% | T |
| Medium Shrub | 7 | 25% | MS |
| Small Shrub | 2 | 1% | SS |
| Large Herb | 4 | 5% | LH |
| Medium Herb | 10 | 15% | MH |
| Small or Prostrate Herb | 3 | 5% | SH |
| Large Tufted Graminoid | 2 | 5% | LTG |
| Large Non-tufted Graminoid | 1 | 5% | 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 | 2 | 5% | SC |
| Bryophytes/Lichens | na | 20% | BL |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 23: Herb-rich Foothill Forest - Greater Grampians bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  T Acacia melanoxylon Blackwood  MS Coprosma hirtella Rough Coprosma  MS Leptospermum scoparium Manuka  MS Epacris impressa Common Heath  MS r Correa aemula Hairy Correa  SS Tetratheca ciliata Pink-bells  SS Pimelea curviflora s.l. Curved Rice-flower  SS Olearia myrsinoides Silky Daisy-bush  PS Styphelia adscendens Golden Heath  PS Bossiaea prostrata Creeping Bossiaea  LH Mentha laxiflora Forest Mint  LH Senecio quadridentatus Cotton Fireweed  LH Wahlenbergia stricta Tall Bluebell  LH Senecio tenuiflorus Slender Fireweed  MH Stellaria pungens Prickly Starwort  MH Geranium potentilloides Cinquefoil Cranesbill  MH Viola hederacea sensu Willis (1972) Ivy-leaf Violet  SH Dichondra repens Kidney-weed  SH Hydrocotyle sibthorpioides Shining Pennywort  SH v Swainsona brachycarpa Slender Swainson-pea  SH Chiloglottis gunnii s.l. Common Bird-orchid  LTG Poa labillardierei Common Tussock-grass  LTG Lomandra longifolia Spiny-headed Mat-rush  LNG Gahnia radula Thatch Saw-sedge  MTG Lomandra filiformis ssp. coriacea Wattle Mat-rush  MTG Stylidium graminifolium s.l. Grass Trigger-plant  MTG Luzula meridionalis var. flaccida Common Woodrush  MNG Microlaena stipoides var. stipoides Weeping Grass  MNG Poa tenera Slender Tussock-grass  GF Pteridium esculentum Austral Bracken  GF Polystichum proliferum Mother Shield-fern  GF Asplenium flabellifolium Necklace Fern  GF Adiantum aethiopicum Common Maidenhair  SC Cassytha melantha Coarse Dodder-laurel  SC Clematis aristata Mountain Clematis  SC Comesperma volubile Love Creeper  SC Billardiera scandens Common Apple-berry  **Recruitment:**  Continuous  **Organic Litter:**  40 % cover  **Logs:**  20 m/0.1 ha.  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  LH Cirsium vulgare Spear Thistle high high MH Hypochoeris radicata Cat's Ear high low  MH Hypochoeris glabra Smooth 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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians 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 4 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** Medium Shrub | **#Spp**  13 | **%Cover**  55% | **LF code**  MS |
| Small Shrub | 7 | 15% | SS |
| Prostrate Shrub | 2 | 5% | PS |
| Large Herb | 1 | 1% | LH |
| Medium Herb | 4 | 5% | MH |
| Small or Prostrate Herb | 2 | 1% | SH |
| Large Tufted Graminoid | 2 | 5% | LTG |
| Medium to Small Tufted Graminoid | 6 | 10% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 5% | MNG |
| Scrambler or Climber | 1 | 1% | SC |
| Bryophytes/Lichens | na | 20% | BL |
| Soil Crust | na | 10% | S/C |

|  |  |  |  |
| --- | --- | --- | --- |
| **LF Code**  MS |  | **Species typical of at least part of EVC range**  Callitris rhomboidea | **Common Name**  Oyster Bay Pine |
| MS |  | Correa reflexa | Common Correa |
| MS |  | Leptospermum myrsinoides | Heath Tea-tree |
| MS |  | Grevillea alpina | Cat's Claw Grevillea |
| SS |  | Tetratheca ciliata | Pink-bells |
| SS | r | Hibbertia cistiflora ssp. rostrata | Rock Rose Guinea-flower |
| SS |  | Leucopogon glacialis | Twisted Beard-heath |
| SS |  | Leucopogon virgatus | Common Beard-heath |
| PS |  | Astroloma pinifolium | Pine Heath |
| PS |  | Styphelia adscendens | Golden Heath |
| PS |  | Astroloma humifusum | Cranberry Heath |
| MH |  | Drosera peltata ssp. auriculata | Tall Sundew |
| MH |  | Gonocarpus teucrioides s.l. | Germander Raspwort |
| MH |  | Gonocarpus tetragynus | Common Raspwort |
| MH |  | Burchardia umbellata | Milkmaids |
| SH | r | Stylidium soboliferum | Grampians Trigger-plant |
| LTG |  | Xanthorrhoea australis | Austral Grass-tree |
| LTG |  | Gahnia sieberiana | Red-fruit Saw-sedge |
| MTG |  | Dianella revoluta s.l. | Black-anther Flax-lily |
| MTG |  | Lepidosperma semiteres | Wire Rapier-sedge |
| MTG |  | Lepidosperma laterale | Variable Sword-sedge |
| MTG |  | Lomandra sororia | Small Mat-rush |
| MNG |  | Caustis flexuosa | Curly Wig |
| MNG |  | Tetrarrhena distichophylla | Hairy Rice-grass |
| MNG |  | Hypolaena fastigiata | Tassel Rope-rush |
| SC |  | Grevillea aquifolium | Variable Prickly Grevillea |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 28: Rocky Outcrop Shrubland - Greater Grampians bioregion | |
|  | **Recruitment:**  Continuous  **Organic Litter:**  40 % cover  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  MH Hypochoeris radicata Cat's Ear high low  MH Hypochoeris glabra Smooth Cat's-ear high low  MNG Aira elegantissima 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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians 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**  Eucalyptus spp. | **DBH(cm)**  90 cm | **#/ha**  20 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 40% | Eucalyptus baxteri s.l.  Eucalyptus obliqua Eucalyptus cypellocarpa | Brown Stringybark  Messmate Stringybark Mountain Grey-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 |
| Large Herb | 1 | 5% | LH |
| Medium Herb | 3 | 10% | MH |
| Large Non-tufted Graminoid | 1 | 5% | LNG |
| Medium to Small Tufted Graminoid | 1 | 5% | MTG |
| Medium to Tiny Non-tufted Graminoid | 1 | 10% | MNG |
| Ground Fern | 2 | 20% | GF |
| Tree Fern | 1 | 5% | TRF |
| Scrambler or Climber | 1 | 5% | SC |
| Bryophytes/Lichens | na | 20% | BL |

|  |  |  |  |
| --- | --- | --- | --- |
| **LF Code**  T |  | **Species typical of at least part of EVC range**  Acacia melanoxylon | **Common Name**  Blackwood |
| MS |  | Acacia verticillata | Prickly Moses |
| MS |  | Pultenaea juniperina s.l. | Prickly Bush-pea |
| MS | R r | Hovea corrickiae | Glossy Hovea |
| MS |  | Coprosma hirtella | Rough Coprosma |
| LH |  | Senecio linearifolius | Fireweed Groundsel |
| LH |  | Mentha laxiflora | Forest Mint |
| MH |  | Lagenophora stipitata | Common Bottle-daisy |
| MH |  | Poranthera microphylla | Small Poranthera |
| MH |  | Viola hederacea sensu Willis (1972) | Ivy-leaf Violet |
| MH |  | Oxalis perennans | Grassland Wood-sorrel |
| LNG |  | Tetrarrhena juncea | Forest Wire-grass |
| MTG |  | Dianella tasmanica | Tasman Flax-lily |
| MNG |  | Poa tenera | Slender Tussock-grass |
| GF |  | Pteridium esculentum | Austral Bracken |
| GF |  | Polystichum proliferum | Mother Shield-fern |
| TRF |  | Cyathea australis | Rough Tree-fern |
| SC |  | Clematis aristata | Mountain Clematis |
| SC | r | Billardiera bignoniacea | Orange Bell-climber |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 29: Damp Forest - Greater Grampians 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 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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 30: Wet Forest

Description:

Restricted to south-facing, steep narrow gullies that are sometimes spring fed and supplemented by relatively high annual rainfall. Characterised by a tall eucalypt overstorey to 30 m tall with scattered understorey trees and shrubs over a moist, shaded, fern-rich ground layer dominated by tree-ferns.

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species**  Eucalyptus spp. | **DBH(cm)**  90 cm | **#/ha**  20 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 40% | Eucalyptus obliqua  Eucalyptus cypellocarpa Eucalyptus ovata | Messmate  Mountain Grey-gum Swamp Gum |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** | **#Spp** | **%Cover** | **LF code** |
| Immature Canopy Tree |  | 5% | IT |
| Understorey Tree or Large Shrub | 2 | 20% | T |
| Medium Shrub | 4 | 15% | MS |
| Small Shrub | 1 | 1% | SS |
| Large Herb | 2 | 5% | LH |
| Medium Herb | 3 | 5% | MH |
| Large Tufted Graminoid | 2 | 5% | LTG |
| Large Non-tufted Graminoid | 1 | 5% | LNG |
| Medium Tufted Graminoid | 2 | 5% | MTG |
| Medium Non-tufted Graminoid | 2 | 5% | MNG |
| Ground Fern | 6 | 20% | GF |
| Tree Fern | 2 | 20% | TRF |
| Epiphyte | 2 | 1% | EP |
| Scrambler or Climber | 1 | 1% | SC |
| Bryophytes/Lichens | na | 20% | BL |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 30: Wet Forest – Greater Grampians bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  T Pomaderris apetala ssp. apetala Grampians Pomaderris  T Acacia melanoxylon Blackwood  MS Coprosma quadrifida Prickly Currant-bush  MS Acacia mucronata ssp. longifolia Narrow-leaf Wattle  MS Coprosma hirtella Rough Coprosma  MS Hovea corricikae Glossy Hovea  SS Rubus parvifolius Small-leaf Bramble  LH Sambucus gaudichaudiana White Elderberry  LH Sigesbeckia orientalis ssp. orientalis Indian Weed  MH Stellaria flaccida Forest Starwort  MH Acaena novae-zelandiae Bidgee-widgee  MH Euchiton involucratus s.l. Common Cudweed  MH Hydrocotyle hirta Hairy Pennywort  LTG Carex appressa Tall Sedge  LNG Tetrarrhena juncea Forest Wire-grass  MTG Poa labillardierei Common Tussock-grass  MNG Poa tenera Slender Tussock-grass  MNG Microlaena stipoides var. stipoides Weeping Grass  GF Blechnum nudum Fishbone Water-fern  GF Polystichum proliferum Mother Shield-fern  GF Blechnum wattsii Hard Water-fern  GF Histiopteris incisa Bat’s Wing Fern  TRF Dicksonia antarctica Soft Tree-fern  TRF Todea barbara Austral King-fern  EP Microsorum pustulatum ssp. pustulatum Kangaroo Fern  SC Clematis aristata Mountain Clematis  **Recruitment:**  Continuous.  **Organic Litter:**  50 % cover  **Logs:**  30 m/0.1 ha.  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  SC Galium aparine Cleavers 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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 37: Montane Grassy Woodland

Description:

Occurs in montane elevations on moderately fertile soils. An open and sparse eucalypt mallee woodland to 5 m tall with the understorey consisting of a small, sparse shrub layer. The EVC is characterised by its grassy ground cover together with a variety of other graminoids and herbs.

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 20% | Eucalyptus pauciflora ssp. parvifructa  Eucalyptus baxteri s.l. | Grampians Sally  Brown Stringybark |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** | **#Spp** | **%Cover** | **LF code** |
| Medium Shrub | 6 | 20% | MS |
| Small Shrub | 3 | 10% | SS |
| Prostrate Shrub | 2 | 5% | PS |
| Large Herb | 2 | 5% | 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 |
| Bryophytes/Lichens | na | 10% | BL |
| Soil Crust | na | 10% | S/C |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 37: Montane Grassy Woodland – Greater Grampians bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  MS Acacia melanoxylon Blackwood  MS Acacia paradoxa Hedge Wattle  MS Epacris impressa Common Heath  MS Leptospermum scoparium Manuka  SS Acacia aculeatissima Thin-leaf Wattle  SS Dillwynia sericea s.l. Showy Parrot-pea  SS Pimelea humilis Common Rice-flower  PS Acrotriche serrulata Honey-pots  PS Astroloma pinifolium Pine Heath  LH Chrysocephalum apiculatum s.l. Common Everlasting  MH Brunonia australis Blue Pincushion  MH Daucus glochidiatus Austral Carrot  MH Drosera peltata Pale Sundew  MH Hydrocotyle hirta Hairy Pennywort  SH Dichondra repens Kidney-weed  SH Drosera whittakerii ssp. aberrans Scented Sundew  LTG Lomandra longifolia Spiny-headed Mat-rush  MTG Poa labillardierei Common Tussock-grass  MTG Lomadra filiformis Wattle Mat-rush  MTG Themeda triandra Kangaroo Grass  MTG Dianella revoluta Black-anther Flax-lily  MNG Microlaena stipoides var. stipoides Weeping Grass  TTG Centrolepis strigosa ssp. strigosa Hairy Centrolepis  **Recruitment:**  Continuous  **Organic Litter:**  20 % cover  **Logs:**  15 m/0.1 ha. (note: large log class does not apply)  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  MH Hypochoeris radicata Cat's Ear high low MH Hypochoeris glabra Smooth Cat’s-ear high low MNG Aira elegantissima Delicate Hair-grass high low MNG Juncus capitatus Capitate Rush high low  Published by the Victorian Government Department of Sustainability and Environment December 2004  © The State of Victoria Department of Sustainability and Environment 2004  This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:   * the copyright owner is acknowledged; * no official connection is claimed; * the material is made available without charge or at cost; and * the material is not subject to inaccurate, misleading or derogatory treatment.   Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be  directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.  For more information contact: Customer Service Centre, 136 186  This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 45: Shrubby Foothill Forest

Description:

Occurs on ridges 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**  Eucalyptus spp. | **DBH(cm)**  70 cm | **#/ha**  20 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 40% | Eucalyptus obliqua  Eucalyptus baxteri s.l. r Eucalyptus alaticaulis | Messmate Stringybark  Brown Stringybark Grampians Grey-gum |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** | **#Spp** | **%Cover** | **LF code** |
| Immature Canopy Tree |  | 5% | IT |
| Understorey Tree or Large Shrub | 1 | 10% | T |
| Understorey Tree or Large Shrub | 1 | 1% | MT |
| Medium Shrub | 13 | 40% | MS |
| Small Shrub | 5 | 10% | SS |
| Prostrate Shrub | 3 | 5% | PS |
| Large Herb | 1 | 1% | LH |
| Medium Herb | 5 | 10% | MH |
| Large Tufted Graminoid | 2 | 5% | LTG |
| Large Non-tufted Graminoid | 1 | 10% | LNG |
| Medium to Small Tufted Graminoid | 6 | 15% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 5% | MNG |
| Ground Fern | 2 | 5% | GF |
| Scrambler or Climber | 2 | 5% | SC |
| Bryophytes/Lichens | na | 10% | BL |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 45: Shrubby Foothill Forest - Greater Grampians Bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  T r Banksia saxicola Rock Banksia  MS Epacris impressa Common Heath  MS Pultenaea scabra Rough Bush-pea  MS Coprosma hirtella Rough Coprosma  MS Acacia oxycedrus Spike Wattle  SS Tetratheca ciliata Pink-bells  SS Amperea xiphoclada var. xiphoclada Broom Spurge  SS Pimelea humilis Common Rice-flower  SS Olearia erubescens Moth Daisy-bush  PS Acrotriche serrulata Honey-pots  PS Styphelia adscendens Golden Heath  PS r Boronia nana var. pubescens Dwarf Boronia  MH Platysace heterophylla Slender Platysace  MH Viola hederacea sensu Entwisle (1996) Ivy-leaf Violet  MH Gonocarpus humilis Shade Raspwort  MH Drosera peltata ssp. auriculata Tall Sundew  LTG Xanthorrhoea australis Austral Grass-tree  LTG Lomandra longifolia ssp. exilis Cluster-headed Mat-rush  LTG Gahnia sieberiana Red-fruit Saw-sedge  MTG Lomandra filiformis Wattle Mat-rush  MTG Stylidium graminifolium s.l. Grass Trigger-plant  MTG Poa clelandii Noah's Ark  MTG Deyeuxia densa Heath Bent-grass  MNG Tetrarrhena distichophylla Hairy Rice-grass  GF Pteridium esculentum Austral Bracken  SC Cassytha pubescens s.s. Downy Dodder-laurel  SC r Billardiera bignoniacea Orange Bell-climber  **Recruitment:**  Episodic/Fire. Desirable period between disturbances is 30 years.  **Organic Litter:**  40 % cover  **Logs:**  20 m/0.1 ha.  **Weediness:**  There are no consistent weeds in this EVC.  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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians 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** | **Character Species** | **Common Name** |
| 20% | Eucalyptus obliqua  Eucalyptus baxteri s.l.  r Eucalyptus alaticaulis | Messmate Stringybark  Brown Stringybark Grampians Grey-gum |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** | **#Spp** | **%Cover** | **LF code** |
| Immature Canopy Tree |  | 5% | IT |
| Understorey Tree or Large Shrub | 3 | 10% | T |
| Medium Shrub | 10 | 20% | MS |
| Small Shrub | 5 | 5% | SS |
| Prostrate Shrub | 2 | 5% | PS |
| Large Herb | 3 | 5% | LH |
| Medium Herb | 16 | 20% | MH |
| Small or Prostrate Herb | 5 | 5% | SH |
| Large Tufted Graminoid | 3 | 5% | LTG |
| Large Non-tufted Graminoid | 1 | 1% | LNG |
| Medium to Small Tufted Graminoid | 8 | 15% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 10% | MNG |
| Ground Fern | 2 | 5% | GF |
| Scrambler or Climber | 3 | 5% | SC |
| Bryophytes/Lichens | na | 20% | BL |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 47: Valley Grassy Forest - Greater Grampians bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  T Acacia melanoxylon Blackwood  T Exocarpos cupressiformis Cherry Ballart  MS Epacris impressa Common Heath  MS Leptospermum scoparium Manuka  MS Banksia marginata Silver Banksia  MS Coprosma hirtella Rough Coprosma  SS Tetratheca ciliata Pink-bells  SS Pimelea humilis Common Rice-flower  SS Hovea heterophylla Common Hovea  SS Leucopogon virgatus Common Beard-heath  PS Acrotriche serrulata Honey-pots  PS Bossiaea prostrata Creeping Bossiaea  PS Astroloma humifusum Cranberry Heath  LH Senecio tenuiflorus Slender Fireweed  LH Wahlenbergia stricta Tall Bluebell  MH Drosera peltata ssp. auriculata Tall Sundew  MH Viola hederacea sensu Entwisle (1996) Ivy-leaf Violet  MH Veronica calycina Hairy Speedwell  MH Helichrysum scorpioides Button Everlasting  SH r Asperula minima Mossy Woodruff  SH Opercularia varia Variable Stinkweed  SH Drosera whittakeri ssp. aberrans Scented Sundew  SH Dichondra repens Kidney-weed  LTG Xanthorrhoea australis Austral Grass-tree  LTG Lomandra longifolia Spiny-headed Mat-rush  LTG Deyeuxia quadriseta Reed Bent-grass  LNG Gahnia radula Thatch Saw-sedge  MTG Lomandra filiformis Wattle Mat-rush  MTG Dianella revoluta s.l. Black-anther Flax-lily  MTG Carex breviculmis Common Grass-sedge  MTG Schoenus apogon Common Bog-sedge  MNG Microlaena stipoides var. stipoides Weeping Grass  MNG Poa tenera Slender Tussock-grass  GF Pteridium esculentum Austral Bracken  EP Amyema pendula Drooping Mistletoe  SC Comesperma volubile Love Creeper  SC Billardiera scandens Common Apple-berry  SC Clematis aristata Mountain Clematis  SC Thysanotus patersonii Twining Fringe-lily  **Recruitment:**  Continuous  **Organic Litter:**  40 % cover  **Logs:**  20 m/0.1 ha.  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  MH Hypochoeris radicata Cat's Ear high low  MH Hypochoeris glabra Smooth 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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians 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**  Eucalyptus spp. | **DBH(cm)**  60 cm | **#/ha**  15 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 15% | Eucalyptus obliqua  Eucalyptus baxteri s.l. | Messmate Stringybark  Brown Stringybark |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form**  Immature Canopy Tree | **#Spp** | **%Cover**  5% | **LF code**  IT |
| Medium Shrub | 10 | 40% | MS |
| Small Shrub | 10 | 20% | SS |
| Prostrate Shrub | 3 | 5% | PS |
| Large Herb | 1 | 1% | LH |
| Medium Herb | 6 | 10% | MH |
| Small or Prostrate Herb | 2 | 1% | SH |
| Large Tufted Graminoid | 2 | 5% | LTG |
| Large Non-tufted Graminoid | 1 | 5% | LNG |
| Medium to Small Tufted Graminoid | 6 | 10% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 10% | MNG |
| Scrambler or Climber | 2 | 5% | SC |
| Bryophytes/Lichens | na | 10% | BL |
| Soil Crust | na | 10% | S/C |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 48: Heathy Woodland - Greater Grampians bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  MS Leptospermum myrsinoides Heath Tea-tree  MS Banksia marginata Silver Banksia  MS Correa reflexa Common Correa  MS Epacris impressa Common Heath  SS Tetratheca ciliata Pink-bells  SS Astroloma conostephioides Flame Heath  SS Leucopogon virgatus Common Beard-heath  SS Isopogon ceratophyllus Horny Cone-bush  PS Acrotriche serrulata Honey-pots  PS Styphelia adscendens Golden Heath  PS Astroloma humifusum Cranberry Heath  MH Gonocarpus tetragynus Common Raspwort  MH Burchardia umbellata Milkmaids  MH Goodenia geniculata Bent Goodenia  MH Drosera peltata ssp. auriculata Tall Sundew  SH Drosera whittakeri ssp. aberrans Scented Sundew  SH Opercularia varia Variable Stinkweed  LTG Xanthorrhoea australis Austral Grass-tree  LTG Austrostipa mollis Supple Spear-grass  LNG Gahnia radula Thatch Saw-sedge  MTG Lomandra sororia Small Mat-rush  MTG Lepidosperma semiteres Wire Rapier-sedge  MTG Dianella revoluta s.l. Black-anther Flax-lily  MTG Lomandra nana Dwarf Mat-rush  MNG Hypolaena fastigiata Tassel Rope-rush  SC Cassytha pubescens s.s. Downy Dodder-laurel  SC Cassytha glabella Slender Dodder-laurel  SC Grevillea aquifolium Variable Prickly Grevillea  **Recruitment:**  Episodic/Fire. Desirable period between disturbances is 20 years.  **Organic Litter:**  40 % cover  **Logs:**  15 m/0.1 ha.  **Weediness:**  There are no consistent weeds in this EVC.  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. |

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Greater Grampians bioregion

EVC 53: Swamp Scrub

###### Description:

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

###### Canopy Cover:

|  |  |  |
| --- | --- | --- |
| %cover | Character Species | Common Name |
| 50% | Leptospermum lanigerum  Melaleuca squarrosa Acacia melanoxylon  Acacia mearnsii | Woolly Tea-tree  Scented Paperbark Blackwood  Black Wattle |

|  |  |  |  |
| --- | --- | --- | --- |
| Understorey: Life form | #Spp | %Cover | LF code |
| Medium Shrub | 2 | 10% | MS |
| Small Shrub | 1 | 1% | SS |
| Large Herb | 5 | 5% | LH |
| Medium Herb | 9 | 15% | MH |
| Small or Prostrate Herb | 3 | 10% | SH |
| Large Tufted Graminoid | 2 | 15% | LTG |
| Large Non-tufted Graminoid | 2 | 5% | LNG |
| Medium to Small Tufted Graminoid | 4 | 15% | MTG |
| Medium to Tiny Non-tufted Graminoid | 3 | 15% | MNG |
| Ground Fern | 2 | 5% | GF |
| Scrambler or Climber | 1 | 5% | SC |
| Bryophytes/Lichens | na | 20% | BL |

|  |  |  |
| --- | --- | --- |
| LF Code | Species typical of at least part of EVC range | Common Name |
| MS | Ozothamnus ferrugineus | Tree Everlasting |
| MS | Leptospermum continentale | Prickly Tea-tree |
| SS | Rubus parvifolius | Small-leaf Bramble |
| MH | Oxalis perennans | Grassland Wood-sorrel |
| MH | Lagenophora stipitata | Common Bottle-daisy |
| MH | Viola hederacea sensu Willis (1972) | Ivy-leaf Violet |
| SH | Lobelia pedunculata s.l. | Matted Pratia |
| SH | Hydrocotyle sibthorpioides | Shining Pennywort |
| SH | Dichondra repens | Kidney-weed |
| LTG | Gahnia clarkei | Tall Saw-sedge |
| LTG | Juncus pallidus | Pale Rush |
| LTG | Carex appressa | Tall Sedge |
| MTG | Juncus pauciflorus | Loose-flower Rush |
| MNG | Poa tenera | Slender Tussock-grass |
| MNG | Microlaena stipoides var. stipoides | Weeping Grass |
| GF | Pteridium esculentum | Austral Bracken |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 53: Swamp Scrub – Greater Grampians bioregion | |
|  | Recruitment:  Continuous  Organic Litter:  40 % cover  Weediness:  LF Code Typical Weed Species Common Name Invasive Impact  LH Cirsium vulgare Spear Thistle high high  LH Sonchus oleraceus Common Sow-thistle high low  MH Hypochoeris radicata Cat's Ear high low MH Leontodon taraxacoides ssp. taraxacoides Hairy Hawkbit high low  MH Centaurium erythraea Common Centaury high low  MH Prunella vulgaris Self-heal high low  MH Anagallis arvensis Pimpernel high low  LNG Holcus lanatus Yorkshire Fog high high  Published by the Victorian Government Department of Sustainability and Environment November 2007  © The State of Victoria Department of Sustainability and Environment 2007  This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:   * the copyright owner is acknowledged; * no official connection is claimed; * the material is made available without charge or at cost; and * the material is not subject to inaccurate, misleading or derogatory treatment.   Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.  For more information contact: Customer Service Centre, 136 186  This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 55: Plains Grassy Woodland

Description:

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

Large trees:

**Species DBH(cm) #/ha**

Eucalyptus spp. 80 cm 15 / ha

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 15% | Eucalyptus camaldulensis | River Red Gum |

|  |  |  |  |
| --- | --- | --- | --- |
| **Life Forms: Life form** | **#Spp** | **%Cover** | **LF code** |
| Immature Tree |  | 5% | IT |
| Understorey Tree or Large Shrub | 1 | 1% | T |
| Medium Shrub | 1 | 5% | MS |
| Small Shrub | 2 | 5% | SS |
| Prostrate Shrub | 1 | 1% | PS |
| Large Herb | 1 | 1% | LH |
| Medium Herb | 18 | 25% | MH |
| Small or Prostrate Herb | 4 | 10% | SH |
| Large Tufted Graminoid | 3 | 5% | LTG |
| Medium to Small Tufted Graminoid | 15 | 40% | MTG |
| Medium to Tiny Non-tufted Graminoid | 4 | 5% | MNG |
| Bryophytes/Lichens | na | 10% | BL |

|  |  |  |
| --- | --- | --- |
| **LF Code**  SS | **Species typical of at least part of EVC range**  Pimelea curviflora s.l. | **Common Name**  Curved Rice-flower |
| PS | Pultenaea pedunculata | Matted Bush-pea |
| PS | Bossiaea prostrata | Creeping Bossiaea |
| MH | Oxalis perennans | Grassland Wood-sorrel |
| MH | Pelargonium rodneyanum | Magenta Stork’s-bill |
| MH | Eryngium ovinum | Blue Devil |
| MH | Calocephalus citreus | Lemon Beauty-heads |
| SH | Drosera whittakeri ssp. aberrans | Scented Sundew |
| SH | Dichondra repens | Kidneyweed |
| SH | Solenogyne dominii | Smooth Solenogyne |
| LTG | Poa labillardierei | Common Tussock-grass |
| LTG | Austrostipa mollis | Supple Spear-grass |
| MTG | Themeda triandra | Kangaroo Grass |
| MTG | Austrodanthonia caespitosa | Common Wallaby-grass |
| MTG | Elymus scaber var. scaber | Common Wheat-grass |
| MTG | Poa sieberiana | Grey Tussock-grass |
| MNG | Microtis unifolia | Common Onion-orchid |
| MNG | Microlaena stipoides var. stipoides | Weeping Grass |
| TTG | Centrolepis aristata | Pointed Centrolepis |
| SC | Convolvulus erubescens spp. agg. | Pink Bindweed |
| SC | Thysanotus patersonii | Twining Fringe-lily |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 55: Plains Grassy Woodland - Greater Grampians bioregion | |
|  | **Recruitment:**  Continuous  **Organic Litter:**  10 % cover  **Logs:**  10 m/0.1 ha.  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  MH Hypochoeris radicata Cat's Ear high low MH Trifolium campestre var. campestre Hop Clover high low MH Trifolium subterraneum Subterranean Clover high low MH Centaurium erythraea Common Centaury high low  MH Anagallis arvensis Pimpernel high low  MH Hypochoeris glabra Smooth Cat's-ear high low  MH Trifolium dubium Suckling Clover high low  LNG Holcus lanatus Yorkshire Fog high high  MTG Briza minor Lesser Quaking-grass high low  MTG Romulea rosea Onion Grass high low  MTG Briza maxima Large Quaking-grass high low  MTG Vulpia bromoides Squirrel-tail Fescue high low MTG Anthoxanthum odoratum Sweet Vernal-grass high high  MNG Juncus capitatus Capitate Rush high low  MNG Aira elegantissima Delicate Hair-grass high low  MNG Cynosurus echinatus Rough Dog's-tail high low  MNG Aira spp. Hair Grass high low  TTG Cyperus tenellus Tiny Flat-sedge 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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 67: Alluvial Terraces Herb-rich Woodland

Description:

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

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species**  Eucalyptus spp. | **DBH(cm)**  70 cm | **#/ha**  10 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 15% | Eucalyptus camaldulensis  Eucalyptus melliodora | River Red-gum  Yellow Box |

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

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 67: Alluvial Terraces Herb-rich Woodland - Greater Grampians bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  T Acacia mearnsii Black Wattle  MS Banksia marginata Silver Banksia  MS Leptospermum continentale Prickly Tea-tree  MS Brachyloma daphnoides Daphne Heath  MS Leptospermum scoparium Manuka  SS Hibbertia fasciculata var. prostrata Bundled Guinea-flower  SS Hibbertia riparia Erect Guinea-flower  SS Hibbertia stricta s.l. Upright Guinea-flower  PS Astroloma humifusum Cranberry Heath  PS Acrotriche serrulata Honey-pots  LH Wahlenbergia stricta Tall Bluebell  MH Hypericum gramineum Small St John's Wort  MH Drosera peltata ssp. peltata Pale Sundew  MH Poranthera microphylla Small Poranthera  SH Viola cleistogamoides Hidden Violet  SH Siloxerus multiflorus Small Wrinklewort  SH Drosera pygmaea Tiny Sundew  SH Solenogyne dominii Smooth Solenogyne  LTG Deyeuxia quadriseta Reed Bent-grass  LTG Austrostipa mollis Supple Spear-grass  MTG Luzula meridionalis Common Woodrush  MTG Schoenus apogon Common Bog-sedge  MTG Juncus subsecundus Finger Rush  MTG Austrodanthonia setacea Bristly Wallaby-grass  MNG Microlaena stipoides var. stipoides Weeping Grass  MNG Triglochin nanum Dwarf Arrowgrass  TTG Centrolepis strigosa ssp. strigosa Hairy Centrolepis  TTG Centrolepis aristata Pointed Centrolepis  TTG Aphelia pumilio Dwarf Aphelia  SC Thysanotus patersonii Twining Fringe-lily  **Recruitment:**  Continuous  **Organic Litter:**  10 % cover  **Logs:**  15 m/0.1 ha.  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  LH Cirsium vulgare Spear Thistle high high  MH Hypochoeris radicata Cat's Ear high low  MH Hypochoeris glabra Smooth Cat's-ear high low  MH Cicendia filiformis Slender Cicendia high low  MH Anagallis arvensis Pimpernel high low  MH Centaurium erythraea Common Centaury high low  MH Moenchia erecta Erect Chickweed high low  MH Parentucellia latifolia Red Bartsia high low MH Leontodon taraxacoides ssp. taraxacoides Hairy Hawkbit high low  MTG Briza minor Lesser Quaking-grass high low  MTG Vulpia bromoides Squirrel-tail Fescue high low  MNG Juncus capitatus Capitate Rush high low  MNG Aira elegantissima Delicate Hair-grass high low  TTG Cyperus tenellus Tiny Flat-sedge high low  TTG Isolepis hystrix Awned Club-sedge high low  Published by the Victorian Government Department of Sustainability and Environment May 2004  © The State of Victoria Department of Sustainability and Environment 2004  This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:   * the copyright owner is acknowledged; * no official connection is claimed; * the material is made available without charge or at cost; and * the material is not subject to inaccurate, misleading or derogatory treatment.   Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.  For more information contact: Customer Service Centre, 136 186  This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians 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**  Eucalyptus spp. | **DBH(cm)**  80 cm | **#/ha**  15 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 15% | Eucalyptus camaldulensis | River Red-gum |

|  |  |  |  |
| --- | --- | --- | --- |
| **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 | 2 | 5% | LH |
| Medium Herb | 6 | 10% | MH |
| Small or Prostrate Herb | 3 | 5% | SH |
| Large Tufted Graminoid | 2 | 10% | LTG |
| Large Non-tufted Graminoid | 1 | 5% | LNG |
| Medium to Small Tufted Graminoid | 10 | 30% | MTG |
| Medium to Tiny Non-tufted Graminoid | 3 | 10% | MNG |
| Scrambler or Climber | 3 | 10% | SC |
| Bryophytes/Lichens | na | 10% | BL |

|  |  |  |
| --- | --- | --- |
| **LF Code**  T | **Species typical of at least part of EVC range**  Acacia melanoxylon | **Common Name**  Blackwood |
| T | Acacia retinodes | Wirilda |
| MS | Hymenanthera dentata s.l. | Tree Violet |
| SS | Rubus parvifolius | Small-leaf Bramble |
| SS | Enchylaena tomentosa var. tomentosa | Ruby Saltbush |
| MH | Oxalis perennans | Grassland Wood-sorrel |
| SH | Azolla filiculoides | Pacific Azolla |
| SH | Lemna disperma | Common Duckweed |
| LTG | Austrostipa bigeniculata | Kneed Spear-grass |
| LTG | Poa labillardierei | Common Tussock-garss |
| LNG | Phragmites australis | Common Reed |
| MTG | Austrodanthonia racemosa var. racemosa | Stiped Wallaby-grass |
| MTG | Austrodanthonia caespitosa | Common Wallaby-grass |
| MNG | Microlaena stipoides var. stipoides | Weeping Grass |
| SC | Glycine clandestina | Twining Glycine |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 68: Creekline Grassy Woodland - Greater Grampians bioregion | |
|  | **Recruitment:**  Continuous  **Organic Litter:**  40 % cover  **Logs:**  20 m/0.1 ha.  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  T Salix fragilis Crack Willow high high  MS Lycium ferocissimum African Box-thorn high high MS Genista monspessulana Montpellier Broom high high  MS Rosa rubiginosa Sweet Briar high high  MS Rubus sp. aff. armeniacus Blackberry high high  LH Plantago lanceolata Ribwort high low  LH Sonchus oleraceus Common Sow-thistle high low  LH Hirschfeldia incana Buchan Weed high high LH Verbena bonariensis s.l. Purple-top Verbena high high  LH Rumex crispus Curled Dock high low  LH Rumex conglomeratus Clustered Dock high low  LH Conium maculatum Hemlock high high  LH Helminthotheca echioides Ox-tongue high low  LH Aster subulatus Aster-weed high low  LH Sonchus asper s.l. Rough Sow-thistle high low LH Solanum nigrum sensu Willis (1972) Black Nightshade high low  MH Brassica fruticulosa Twiggy Turnip high high  MH Hypochoeris radicata Cat's Ear high low  MH Foeniculum vulgare Fennel high high  SH Modiola caroliniana Red-flower Mallow high low  LTG Phalaris aquatica Toowoomba Canary-grass high high LTG Piptatherum miliaceum Rice Millet high high  MTG Ehrharta erecta var. erecta Panic Veldt-grass high high MTG Paspalum dilatatum Paspalum high high  MTG Bromus catharticus Prairie Grass high low  MTG Romulea rosea Onion Grass high low  MTG Bromus diandrus Great Brome high low  MTG Briza maxima Large Quaking-grass high low  MTG Agrostis capillaris s.l. Brown-top Bent high high  MNG Dactylis glomerata Cocksfoot high high  MNG Paspalum distichum Water Couch high high SC Tradescantia fluminensis Wandering Jew 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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 71: Hills Herb-rich Woodland

Description:

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

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species**  Eucalyptus spp. | **DBH(cm)**  70 cm | **#/ha**  15 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 15% | Eucalyptus obliqua  Eucalyptus melliodora  r Eucalyptus sabulosa | Messmate Stringybark  Yellow Box Wimmera Scentbark |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** | **#Spp** | **%Cover** | **LF code** |
| Immature Canopy Tree |  | 5% | IT |
| Understorey Tree or Large Shrub | 1 | 5% | T |
| Medium Shrub | 6 | 10% | MS |
| Small Shrub | 6 | 10% | SS |
| Prostrate Shrub | 3 | 5% | PS |
| Large Herb | 4 | 5% | LH |
| Medium Herb | 15 | 25% | MH |
| Small or Prostrate Herb | 5 | 10% | SH |
| Large Tufted Graminoid | 2 | 5% | LTG |
| Medium to Small Tufted Graminoid | 8 | 15% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 5% | MNG |
| Bryophytes/Lichens | na | 10% | BL |
| Soil Crust | na | 10% | S/C |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 71: Hills Herb-rich Woodland - Greater Grampians bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  T Acacia mearnsii Black Wattle  MS Brachyloma daphnoides Daphne Heath  MS Leptospermum myrsinoides Heath Tea-tree  MS Banksia marginata Silver Banksia  MS Grevillea alpina Cat's Claw Grevillea  SS Astroloma conostephioides Flame Heath  SS Pimelea humilis Common Rice-flower  SS Leucopogon virgatus Common Beard-heath  SS Hibbertia stricta s.l. Upright Guinea-flower  PS Astroloma humifusum Cranberry Heath  PS Acrotriche serrulata Honey-pots  PS Bossiaea prostrata Creeping Bossiaea  PS Astroloma pinifolium Pine Heath  LH Wahlenbergia stricta Tall Bluebell  LH Senecio quadridentatus Cotton Fireweed  LH Senecio tenuiflorus Slender Fireweed  MH Gonocarpus tetragynus Common Raspwort  MH Hypericum gramineum Small St John's Wort  SH Hydrocotyle laxiflora Stinking Pennywort  SH Viola cleistogamoides Hidden Violet  SH Phyllangium divergens Wiry Mitrewort  SH Drosera whittakeri ssp. aberrans Scented Sundew  LTG Xanthorrhoea australis Austral Grass-tree  LTG Deyeuxia quadriseta Reed Bent-grass  MTG Schoenus apogon Common Bog-sedge  MTG Lomandra sororia Small Mat-rush  MTG Dianella revoluta s.l. Black-anther Flax-lily  MTG Lomandra nana Dwarf Mat-rush  MNG Microlaena stipoides var. stipoides Weeping Grass  TTG Centrolepis strigosa ssp. strigosa Hairy Centrolepis  TTG Centrolepis aristata Pointed Centrolepis  TTG Aphelia pumilio Dwarf Aphelia  SC Cassytha pubescens s.s. Downy Dodder-laurel  SC Thysanotus patersonii Twining Fringe-lily  SC Comesperma volubile Love Creeper  SC Drosera macrantha Climbing Sundew  **Recruitment:**  Continuous  **Organic Litter:**  20 % cover  **Logs:**  15 m/0.1 ha.  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  MH Hypochoeris radicata Cat's Ear high low  MH Hypochoeris glabra Smooth Cat's-ear high low  MH Anagallis arvensis Pimpernel high low  MTG Briza minor Lesser Quaking-grass high low  MNG Aira elegantissima Delicate Hair-grass high low  MNG Aira cupaniana Quicksilver 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. |

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Greater Grampians bioregion

EVC 125: Plains Grassy Wetland

###### Description:

This EVC is usually treeless, but in some instances can include sparse River Red Gum Eucalyptus camaldulensis. A sparse shrub component may also be present. The characteristic ground cover is dominated by grasses and small sedges and herbs. The

vegetation is typically species-rich on the outer verges but is usually species-poor in the wetter central areas.

|  |  |  |  |
| --- | --- | --- | --- |
| Life forms: Life form | #Spp | %Cover | LF code |
| Large Herb | 6 | 10% | LH |
| Medium Herb | 11 | 20% | MH |
| Small or Prostrate Herb | 4 | 10% | SH |
| Large Tufted Graminoid | 2 | 10% | LTG |
| Medium to Small Tufted Graminoid | 11 | 30% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 10% | MNG |
| Tiny Tufted Graminoid\* | 2 | 1% | TTG |
| Bryophytes/Lichens | na | 10% | BL |
| \*Largely seasonal life form |  |  |  |

|  |  |  |
| --- | --- | --- |
| LF Code  LH | Species typical of at least part of EVC range  Calocephalus lacteus | Common Name  Milky Beauty-heads |
| LH | Calocephalus citreus | Lemon Beauty-heads |
| LH | Microtis unifolia | Common Onion-orchid |
| MH | Microseris scapigera spp. agg. | Yam Daisy |
| MH | Lythrum hyssopifolia | Small Loosestrife |
| MH | Potamogeton tricarinatus s.l. | Floating Pondweed |
| SH | Lobelia pratioides | Poison Lobelia |
| SH | Eryngium vesiculosum | Prickfoot |
| SH | Ranunculus amphitrichus | Small River Buttercup |
| SH | Solenogyne dominii | Smooth Solenogyne |
| LTG | Amphibromus nervosus | Common Swamp Wallaby-grass |
| LTG | Deyeuxia quadriseta | Reed Bent-grass |
| MTG | Juncus holoschoenus | Joint-leaf Rush |
| MTG | Poa labillardierei | Common Tussock-grass |
| MNG | Eleocharis pusilla | Small Spike-sedge |
| MNG | Eleocharis atricha | Tuber Spike-sedge |
| MNG | Eleocharis acuta | Common Spike-sedge |
| TTG | Aphelia gracilis | Slender Aphelia |

###### Recruitment:

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

###### Organic Litter:

10% cover

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 125: Plains Grassy Wetland – Greater Grampians bioregion | |
|  | Logs:  5 m/0.1 ha.(where trees are overhanging the wetland)  Weediness:  LF Code Typical Weed Species Common Name Invasive Impact  SS Marrubium vulgare Horehound high high  LH Parentucellia viscosa Yellow Bartsia high low  LH Cirsium vulgare Spear Thistle high low  MH Trifolium dubium Suckling Clover high low MH Leontodon taraxacoides ssp. taraxacoides Hairy Hawkbit high low  MH Hypochoeris radicata Cat's Ear high low  MH Trifolium campestre var. campestre Hop Clover high low MH Mentha pulegium Pennyroyal high high  MH Cicendia filiformis Slender Cicendia high low  MH Cotula coronopifolia Water Buttons high high MH Cicendia quadrangularis Square Cicendia high low MH Trifolium subterraneum Subterranean Clover high low  MH Trifolium scabrum Rough Clover high low  MH Arctotheca calendula Cape Weed high low  LTG Phalaris aquatica Toowoomba Canary-grass high high  LNG Holcus lanatus Yorkshire Fog high high  MTG Briza minor Lesser Quaking-grass high low  MTG Vulpia bromoides Squirrel-tail Fescue high low  MTG Romulea rosea Onion Grass high low  MTG Lolium perenne Perennial Rye-grass high high  MTG Critesion marinum Sea Barley-grass high low  MTG Poa annua Annual Meadow-grass high low MTG Bromus hordeaceus ssp. hordeaceus Soft Brome high low MNG Juncus capitatus Capitate Rush high low  TTG Cyperus tenellus Tiny Flat-sedge high low  TTG Isolepis hystrix Awned Club-sedge 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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 134: Sand Forest

Description:

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

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species**  Eucalyptus spp. | **DBH(cm)**  70 cm | **#/ha**  15 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 30% | Eucalyptus viminalis ssp. cygnetensis | Rough-barked Manna-gum |

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

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

**Recruitment:**

Continuous

Organic Litter:

40 % cover

Logs:

15 m/0.1 ha.

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 134: Sand Forest - Greater Grampians bioregion | |
|  | **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  MH Hypochoeris radicata Cat's Ear high low  MH Hypochoeris glabra Smooth Cat's-ear high low  LNG Holcus lanatus Yorkshire Fog high high  MNG Vulpia bromoides Squirrel-tail Fescue high low  MNG Briza minor Lesser Quaking-grass high low  MNG Briza maxima Large Quaking-grass high low  MNG Aira elegantissima Delicate Hair-grass high low  MNG Holcus setosus Annual Fog high low  MNG Aira praecox Early Hair-grass high low  Published by the Victorian Government Department of Sustainability and Environment April 2004  © The State of Victoria Department of Sustainability and Environment 2004  This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:   * the copyright owner is acknowledged; * no official connection is claimed; * the material is made available without charge or at cost; and * the material is not subject to inaccurate, misleading or derogatory treatment.   Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.  For more information contact: Customer Service Centre, 136 186  This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 136: Sedge Wetland

Description:

Open woodland to 15 m tall. Occurs in small swamps or on seasonally inundated drainage lines. Swamp sites are most often permanent, but can dry in drought years or towards the end of summer. Usually devoid of a shrub layer, possibly due to the scouring action of flooding and lying water. The ground layer consists of sedges in patches and a diversity of aquatic and amphibious herbs and grasses.

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species**  Eucalyptus spp. | **DBH(cm)**  80 cm | **#/ha**  5 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 10% | Eucalyptus camaldulensis | River Red-gum |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form**  Immature Canopy Tree | **#Spp** | **%Cover**  5% | **LF code**  IT |
| Medium Shrub | 1 | 5% | MS |
| Large Herb | 1 | 1% | LH |
| Medium Herb | 1 | 1% | MH |
| Large Tufted Graminoid | 1 | 1% | LTG |
| Large Non-tufted Graminoid | 1 | 10% | LNG |
| Medium to Small Tufted Graminoid | 2 | 15% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 35% | MNG |
| Scrambler or Climber | 1 | 5% | SC |
| **Total understorey projective foliage cover** |  | **70%** |  |

|  |  |  |
| --- | --- | --- |
| **LF Code**  MS | **Character Species**  Leptospermum obovatum | **Common Name**  River Tea-tree |
| LH | Villarsia reniformis | Running Marsh-flower |
| MH | Poranthera microphylla | Small Poranthera |
| MH | Goodenia humilis | Swamp Goodenia |
| LTG | Baloskion tetraphyllum ssp. tetraphyllum | Tassel Cord-rush |
| LTG | Juncus pallidus | Pale Rush |
| LNG | Baumea rubiginosa s.l. | Soft Twig-rush |
| MTG | Juncus amabilis | Hollow Rush |
| MTG | Juncus holoschoenus | Joint-leaf Rush |
| MTG | Schoenus tesquorum | Soft Bog-sedge |
| MTG | Isolepis fluitans | Floating Club-sedge |
| MNG | Triglochin striatum | Streaked Arrowgrass |
| MNG | Eleocharis acuta | Common Spike-sedge |
| MNG | Baumea tetragona | Square Twig-sedge |
| SC | Cassytha pubescens s.s. | Downy Dodder-laurel |

**Recruitment:**

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

Weediness:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **LF Code** | **Typical Weed Species** | **Common Name** | **Invasive** | **Impact** |
| MH  SH | Leontodon taraxacoides ssp. taraxacoides  Callitriche hamulata | Hairy Hawkbit  Thread Water-starwort | high  high | low  high |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 136: Sedge Wetland - Greater Grampians bioregion | |
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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 165: Damp Heath Scrub

Description:

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Life forms: Life form** | **#Spp** | **%Cover** | **LF code** |
| Medium Shrub | 8 | 40% | MS |
| Small Shrub | 5 | 10% | SS |
| Large Herb | 1 | 1% | LH |
| Medium Herb | 2 | 5% | MH |
| Large Tufted Graminoid | 3 | 10% | LTG |
| Large Non-tufted Graminoid | 1 | 5% | LNG |
| Medium to Small Tufted Graminoid | 4 | 10% | MTG |
| Medium to Tiny Non-tufted Graminoid | 3 | 30% | MNG |
| Bryophytes/Lichens | na | 10% | BL |

|  |  |  |
| --- | --- | --- |
| **LF Code**  MS | **Species typical of at least part of EVC range**  Banksia marginata | **Common Name**  Silver Banksia |
| MS | Leptospermum myrsinoides | Heath Tea-tree |
| MS | Leptospermum continentale | Prickly Tea-tree |
| MS | Epacris impressa | Common Heath |
| SS | Dillwynia glaberrima | Smooth Parrot-pea |
| SS | Tetratheca ciliata | Pink-bells |
| SS | Hibbertia riparia | Erect Guinea-flower |
| SS | Leucopogon virgatus | Common Beard-heath |
| PS | Acrotriche serrulata | Honey-pots |
| MH | Gonocarpus tetragynus | Common Raspwort |
| MH | Selaginella uliginosa | Swamp Selaginella |
| MH | Craspedia glauca spp. agg. | Common Billy-buttons |
| SH | Lobelia pedunculata s.l. | Matted Pratia |
| LTG | Xanthorrhoea australis | Austral Grass-tree |
| LTG | Deyeuxia quadriseta | Reed Bent-grass |
| LTG | Gahnia sieberiana | Red-fruit Saw-sedge |
| MTG | Lepidosperma semiteres | Wire Rapier-sedge |
| MTG | Eurychorda complanata | Flat Cord-rush |
| MTG | Lomandra sororia | Small Mat-rush |
| MTG | Lepidosperma filiforme | Common Rapier-sedge |
| MNG | Hypolaena fastigiata | Tassel Rope-rush |
| MNG | Leptocarpus tenax | Slender Twine-rush |
| MNG | Lepyrodia muelleri | Common Scale-rush |
| MNG | Empodisma minus | Spreading Rope-rush |
| TTG | Schoenus breviculmis | Matted Bog-sedge |
| SC | Cassytha glabella | Slender Dodder-laurel |

Recruitment:

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

Organic Litter:

40 % cover

Weediness:

There are no consistent weeds in this EVC.

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 165: Damp Heath Scrub - Greater Grampians bioregion | |
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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians 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**  Eucalyptus spp. | **DBH(cm)**  70 cm | **#/ha**  15 / ha |

##### Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 15% | Eucalyptus ovata  Eucalyptus viminalis | Swamp Gum  Manna Gum |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** | **#Spp** | **%Cover** | **LF code** |
| Immature Canopy Tree |  | 5% | IT |
| Understorey Tree or Large Shrub | 2 | 10% | T |
| Medium Shrub | 2 | 10% | MS |
| Small Shrub | 2 | 1% | SS |
| Prostrate Shrub | 2 | 5% | PS |
| Large Herb | 2 | 5% | LH |
| Medium Herb | 8 | 20% | MH |
| Small or Prostrate Herb | 3 | 5% | SH |
| Large Tufted Graminoid | 1 | 1% | LTG |
| Medium to Small Tufted Graminoid | 8 | 40% | MTG |
| Medium to Tiny Non-tufted Graminoid | 1 | 5% | MNG |
| Scrambler or Climber | 1 | 1% | SC |
| Bryophytes/Lichens | na | 10% | BL |

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

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 175: Grassy Woodland – Greater Grampians bioregion | |
|  | **Recruitment:**  Continuous  **Organic Litter:**  20 % cover  **Logs:**  15 m/0.1 ha.  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  MS Lycium ferocissimum African Box-thorn low high MH Leontodon taraxacoides ssp. taraxacoides Hairy Hawkbit high low MH Hypochoeris radicata Cat's Ear high low  MH Arctotheca calendula Cape Weed high low  MTG Briza maxima Large Quaking-grass high low  MTG Romulea rosea Onion Grass high low MTG Ehrharta erecta var. erecta Panic Veldt-grass high high  MTG Ehrharta longiflora Annual Veldt-grass high low  MTG Nassella neesiana Chilean Needle-grass high high  MTG Nassella trichotoma Serrated Tussock 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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 184: Montane Wet Heathland

Description:

A low, generally treeless heathland although sometimes emergent, stunted eucalypts are present. Occurs in wet soak depressions, narrow gullies or headwaters of creeks in the montane, high rainfall areas of the Major Mitchell Plateau in the Grampians. A dense, heathy shrub layer over a ground layer dominated by sedges and rushes.

|  |  |  |  |
| --- | --- | --- | --- |
| **Life forms: Life form** | **#Spp** | **%Cover** | **LF code** |
| Medium Shrub | 6 | 40% | MS |
| Small Shrub | 2 | 5% | SS |
| Medium Herb | 2 | 1% | MH |
| Large Tufted Graminoid | 1 | 5% | LTG |
| Medium to Small Tufted Graminoid | 4 | 20% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 20% | MNG |
| Bryophytes/Lichens | na | 20% | BL |

|  |  |  |  |
| --- | --- | --- | --- |
| **LF Code**  MS | r | **Species typical of at least part of EVC range**  Leptospermum turbinatum | **Common Name**  Shiny Tea-tree |
| MS |  | Melaleuca squamea | Swamp Honey-myrtle |
| MS |  | Leptospermum continentale | Prickly Tea-tree |
| MS |  | Sprengelia incarnata | Pink Swamp-heath |
| SS |  | Dillwynia sericea s.l. | Showy Parrot-pea |
| SS | R r | Pultenaea subalpina | Rosy Bush-pea |
| SS |  | Boronia pilosa | Hairy Boronia |
| MH |  | Utricularia dichotoma s.l. | Fairies' Aprons |
| LTG |  | Gahnia sieberiana | Red-fruit Saw-sedge |
| MTG |  | Eurychorda complanata | Flat Cord-rush |
| MTG |  | Poa clelandii | Noah's Ark |
| MTG |  | Lepidosperma filiforme | Common Rapier-sedge |
| MTG |  | Amphipogon strictus var. setifer | Grey-beard Grass |
| MNG |  | Sporadanthus tasmanicus | Branching Scale-rush |
| MNG |  | Empodisma minus | Spreading Rope-rush |

Recruitment:

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

Organic Litter:

20% cover

Weediness:

There are no consistent weeds in this EVC.

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 184: Montane Wet Heathland - Greater Grampians bioregion | |
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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians 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 is often species-poor and consists typically of sedges tolerant of seasonal waterlogging and sometime dense areas of Coral Fern. Occurs along creeks and minor stream tributaries of the lowland plains.

Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 50% | Melaleuca squarrosa  Leptospermnum lanigerum | Scented Paperbark  Woolly Tea-tree |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** Medium Shrub | **#Spp**  6 | **%Cover**  20% | **LF code**  MS |
| Small Shrub | 3 | 5% | SS |
| Large Herb | 2 | 1% | LH |
| Medium Herb | 4 | 5% | MH |
| Small or Prostrate Herb | 2 | 1% | SH |
| Large Tufted Graminoid | 2 | 20% | LTG |
| Medium to Small Tufted Graminoid | 3 | 5% | MTG |
| Medium to Tiny Non-tufted Graminoid | 5 | 10% | MNG |
| Ground Fern | 1 | 5% | GF |
| Scrambler or Climber | 3 | 15% | SC |
| Bryophytes/Lichens | na | 20% | BL |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 191: Riparian Scrub - Greater Grampians bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  MS Sprengelia incarnata Pink Swamp-heath  MS Leptospermum continentale Prickly Tea-tree  MS Acacia verticillata Prickly Moses  MS Acacia oxycedrus Spike Wattle  SS Tetratheca ciliata Pink-bells  SS Pultenaea dentata Clustered Bush-pea  LH Xyris operculata Tall Yellow-eye  MH Drosera binata Forked Sundew  MH Utricularia dichotoma s.l. Fairies' Aprons  MH Goodenia geniculata Bent Goodenia  MH Gonocarpus humilis Shade Raspwort  SH Mitrasacme pilosa Hairy Mitrewort  SH Gonocarpus micranthus ssp. micranthus Creeping Raspwort  LTG Gahnia sieberiana Red-fruit Saw-sedge  LTG Gymnoschoenus sphaerocephalus Button Grass  LTG Lepidosperma elatius Tall Sword-sedge  MTG Eurychorda complanata Flat Cord-rush  MTG Tetraria capillaris Hair Sedge  MTG Juncus planifolius Broad-leaf Rush  MNG Empodisma minus Spreading Rope-rush  MNG Baumea tetragona Square Twig-sedge  MNG Leptocarpus tenax Slender Twine-rush  MNG Schoenus lepidosperma Slender Bog-sedge  TTG Centrolepis fascicularis Tufted Centrolepis  GF Pteridium esculentum Austral Bracken  SC Cassytha glabella Slender Dodder-laurel  SC Grevillea aquifolium Variable Prickly Grevillea  SC Comesperma volubile Love Creeper  SC Gleichenia microphylla Scrambling Coral-fern  SC Gleichenia dicarpa Pouched Coral-fern  **Recruitment:**  Continuous  **Organic Litter:**  40 % cover  **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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 192: Montane Rocky Shrubland

Description:

Treeless or sparsely treed shrubland on well-drained skeletal sandy loams of rocky high altitude peaks in the Grampians Ranges. The shrub layer consists of a diversity of ericoid shrubs over a variable ground layer of restionaceous species, sedges and herbs.

|  |  |  |  |
| --- | --- | --- | --- |
| **Life forms: Life form** | **#Spp** | **%Cover** | **LF code** |
| Medium Shrub | 10 | 40% | MS |
| Small Shrub | 4 | 10% | SS |
| Prostrate Shrub | 1 | 1% | PS |
| Medium Herb | 2 | 1% | MH |
| Large Tufted Graminoid | 2 | 5% | LTG |
| Medium to Small Tufted Graminoid | 4 | 5% | MTG |
| Medium to Tiny Non-tufted Graminoid | 1 | 1% | MNG |
| Epiphyte | 1 | 1% | EP |
| Bryophytes/Lichens | na | 20% | BL |
| **Total understorey projective foliage cover** |  | **60%** |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **LF Code**  MS |  | **Species typical of at least part of EVC range**  Banksia saxicola | **Common Name**  Rock Banksia |
| MS | r | Acacia obliquinervia | Mountain Hickory Wattle |
| MS |  | Calytrix alpestris | Snow Myrtle |
| MS |  | Acacia oxycedrus | Spike Wattle |
| SS |  | Tetratheca ciliata | Pink-bells |
| SS | R r | Pultenaea subalpina | Rosy Bush-pea |
| SS |  | Dillwynia sericea s.l. | Showy Parrot-pea |
| SS |  | Boronia pilosa | Hairy Boronia |
| PS |  | Astroloma pinifolium | Pine Heath |
| MH |  | Gonocarpus humilis | Shade Raspwort |
| MH |  | Drosera peltata ssp. auriculata | Tall Sundew |
| LTG |  | Gahnia sieberiana | Red-fruit Saw-sedge |
| MTG |  | Eurychorda complanata | Flat Cord-rush |
| MTG |  | Poa sieberiana var. hirtella | Grey Tussock-grass |
| MTG |  | Poa clelandii | Noah's Ark |
| MTG |  | Stylidium graminifolium s.l. | Grass Trigger-plant |
| EP |  | Cassytha pubescens s.s. | Downy Dodder-laurel |

Recruitment:

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

Organic Litter:

40 % cover

Logs:

10 m/0.1 ha.

Weediness:

There are no consistent weeds in this EVC.

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 192: Montane Rocky Shrubland - Greater Grampians bioregion | |
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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 193: Rocky Outcrop Herbland

Description:

Herbland associated with rock outcrops, generally in mosaic with Rocky Outcrop Shrubland. Subject to microclimatic extremes, being typically damp to wet in winter and dry in summer. Trees are rare although scattered spindly eucalypts can occur. Scattered shrubs may also be present. Most prominent life forms are grasses, herbs and geophytes.

|  |  |  |  |
| --- | --- | --- | --- |
| **Life forms: Life form** | **#Spp** | **%Cover** | **LF code** |
| Large Shrub | 2 | 10% | T |
| Medium Shrub | 4 | 10% | MS |
| Small Shrub | 4 | 5% | SS |
| Prostrate Shrub | 2 | 1% | PS |
| Large Herb | 1 | 1% | LH |
| Medium Herb | 3 | 5% | MH |
| Large Tufted Graminoid | 2 | 5% | LTG |
| Medium to Small Tufted Graminoid | 3 | 5% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 5% | MNG |
| Ground Fern | 1 | 1% | GF |
| Scrambler or Climber | 1 | 1% | SC |
| Bryophytes/Lichens | na | 40% | BL |
| **Total understorey projective foliage cover** |  | **80%** |  |

|  |  |  |
| --- | --- | --- |
| **LF Code**  MS | **Species typical of at least part of EVC range**  Callitris rhomboidea | **Common Name**  Oyster Bay Pine |
| MS | Dodonaea viscosa ssp. cuneata | Wedge-leaf Hop-bush |
| MS | Acacia oxycedrus | Spike Wattle |
| MS | Calytrix tetragona | Common Fringe-myrtle |
| SS | Tetratheca ciliata | Pink-bells |
| SS | Pimelea humilis | Common Rice-flower |
| SS | Dillwynia glaberrima | Smooth Parrot-pea |
| SS | Leucopogon glacialis | Twisted Beard-heath |
| PS | Acrotriche serrulata | Honey-pots |
| MH | Gonocarpus tetragynus | Common Raspwort |
| MH | Platysace heterophylla | Slender Platysace |
| LTG | Gahnia sieberiana | Red-fruit Saw-sedge |
| LTG | Xanthorrhoea australis | Austral Grass-tree |
| MTG | Dianella revoluta s.l. | Black-anther Flax-lily |
| MTG | Lepidosperma laterale | Variable Sword-sedge |
| MTG | Lomandra filiformis | Wattle Mat-rush |
| MTG | Lepidosperma semiteres | Wire Rapier-sedge |
| MNG | Microlaena stipoides var. stipoides | Weeping Grass |
| GF | Pteridium esculentum | Austral Bracken |
| SC | Cassytha pubescens s.s. | Downy Dodder-laurel |
| SC | Grevillea aquifolium | Variable Prickly Grevillea |

Recruitment:

Continuous

Organic Litter:

10% cover

Weediness:

There are no consistent weeds in this EVC.

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 193: Rocky Outcrop Herbland - Greater Grampians bioregion | |
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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 195: Seasonally Inundated Shrubby Woodland

Description:

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

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species**  Eucalyptus spp. | **DBH(cm)**  70 cm | **#/ha**  15 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 15% | Eucalyptus leucoxylon  Eucalyptus melliodora  Eucalyptus viminalis ssp. cygnetensis Eucalyptus camaldulensis | Yellow Gum  Yellow Box Manna Gum River Red Gum |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form**  Immature Canopy Tree | **#Spp** | **%Cover**  5% | **LF code**  T |
| Medium Shrub | 7 | 40% | MS |
| Small Shrub | 6 | 20% | SS |
| Prostrate Shrub | 1 | 1% | PS |
| Medium Herb | 4 | 10% | MH |
| Small or Prostrate Herb | 1 | 1% | SH |
| Medium to Small Tufted Graminoid | 5 | 15% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 10% | MNG |
| Bryophytes/Lichens | na | 10% | BL |
| Soil Crust | na | 10% | S/C |

|  |  |  |
| --- | --- | --- |
| **LF Code**  MS | **Species typical of at least part of EVC range**  Calytrix tetragona | **Common Name**  Common Fringe-myrtle |
| MS | Leptospermum continentale | Prickly Tea-tree |
| MS | Melaleuca decussata | Totem-poles |
| MS | Callistemon rugulosus | Scarlet Bottlebrush |
| SS | Hakea rostrata | Beaked Hakea |
| SS | Hibbertia riparia | Upright Guinea-flower |
| SS | Grevillea alpina | Cat’s Claws Grevillea |
| SS | Astroloma conostephioides | Flame Heath |
| PS | Astroloma humifusum | Cranberry Heath |
| MH | Gonocarpus tetragynus | Common Raspwort |
| MH | Acaena echinata | Sheep’s Burr |
| MH | Hypericum gramineum | Small St. John’s-wort |
| SH | Hydrocotyle laxiflora | Stinking Pennywort |
| MTG | Lomandra sororia | Small Mat-rush |
| MTG | Schoenus apogon | Common Bog-sedge |
| MTG | Lepidosperma congestum | Clustered Sword-sedge |
| MTG | Lepidosperma carphoides | Black Rapier-sedge |
| MNG | Hypolaena fastigiata | Tassel Rope-rush |
| MNG | Chorizandra enodis | Black Bristle-sedge |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 195: Seasonally Inundated Shrubby Woodland - Greater Grampians bioregion | |
|  | **Recruitment:**  Continuous  **Organic Litter:**  20 % cover  **Logs:**  15 m/0.1 ha.  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  MH Hypochoeris radicata Cat's Ear high low  MNG Aira elegantissima 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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 198: Sedgy Riparian Woodland

Description:

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

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species**  Eucalyptus spp. | **DBH(cm)**  70 cm | **#/ha**  15 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 20% | Eucalyptus ovata  Eucalyptus obliqua | Swamp Gum  Messmate Stringybark |

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

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 198: Sedgy Riparian Woodland - Greater Grampians bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  T Acacia melanoxylon Blackwood  T Acacia mearnsii Black Wattle  T Melaleuca squarrosa Scented Paperbark  T Leptospermum lanigerum Woolly Tea-tree  MS Leptospermum continentale Prickly Tea-tree  MS Banksia marginata Silver Banksia  MS Correa reflexa Common Correa  MS Leptospermum lanigerum Woolly Tea-tree  SS Tetratheca ciliata Pink-bells  PS Acrotriche serrulata Honey-pots  MH Gonocarpus tetragynus Common Raspwort  MH Centella cordifolia Centella  MH Gratiola peruviana Austral Brooklime  MH Gonocarpus humilis Shade Raspwort  LTG Gahnia sieberiana Red-fruit Saw-sedge  LTG Carex appressa Tall Sedge  LTG Cyperus lucidus Leafy Flat-sedge  MTG Lepidosperma semiteres Wire Rapier-sedge  MTG Lomandra filiformis Wattle Mat-rush  MNG Baumea tetragona Square Twig-sedge  MNG Microlaena stipoides var. stipoides Weeping Grass  MNG Poa tenera Slender Tussock-grass  GF Pteridium esculentum Austral Bracken  GF Blechnum nudum Fishbone Water-fern  SC Cassytha pubescens s.s. Downy Dodder-laurel  **Recruitment:**  Continuous  **Organic Litter:**  30% 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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 278: Herb-rich Heathy Forest

Description:

Eucalypt woodland or open-forest to 15 m tall generally with an understorey comprised of a range of heathy shrubs, subshrubs, grasses and herbs. Occurs on mineralised metamorphosed sandstone.

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species**  Eucalyptus spp. | **DBH(cm)**  70 cm | **#/ha**  20 / ha |

Tree Canopy Cover:

|  |  |  |  |
| --- | --- | --- | --- |
| **%cover** |  | **Character Species** | **Common Name** |
| 30% | r | Eucalyptus obliqua  Eucalyptus baxteri s.l.  Eucalyptus alaticaulis | Messmate Stringybark  Brown Stringybark Grampians Grey-gum |

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

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 278: Herb-rich Heathy Forest - Greater Grampians bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  MS Acacia genistifolia Spreading Wattle  MS Epacris impressa Common Heath  MS Grevillea alpina Cat's Claw Grevillea  MS Acacia verniciflua Varnish Wattle  SS Leucopogon virgatus Common Beard-heath  SS Tetratheca ciliata Pink-bells  SS Astroloma conostephioides Flame Heath  SS Dillwynia glaberrima Smooth Parrot-pea  PS Astroloma humifusum Cranberry Heath  PS Acrotriche serrulata Honey-pots  PS Astroloma pinifolium Pine Heath  PS Bossiaea prostrata Creeping Bossiaea  LH Wahlenbergia stricta Tall Bluebell  LH Senecio tenuiflorus Slender Fireweed  MH Drosera peltata ssp. auriculata Tall Sundew  MH Veronica calycina Hairy Speedwell  MH Gonocarpus tetragynus Common Raspwort  MH Hypericum gramineum Small St John's Wort  SH Viola cleistogamoides Hidden Violet  SH Opercularia varia Variable Stinkweed  SH Hydrocotyle laxiflora Stinking Pennywort  SH r Asperula minima Mossy Woodruff  LTG Xanthorrhoea australis Austral Grass-tree  LTG Deyeuxia quadriseta Reed Bent-grass  LTG Austrostipa mollis Supple Spear-grass  MTG Lomandra filiformis Wattle Mat-rush  MTG Lepidosperma semiteres Wire Rapier-sedge  MTG Lomandra sororia Small Mat-rush  MTG Dianella revoluta s.s. Black-anther Flax-lily  MNG Microlaena stipoides var. stipoides Weeping Grass  GF Pteridium esculentum Austral Bracken  SC Cassytha pubescens s.s. Downy Dodder-laurel  SC Comesperma volubile Love Creeper  SC Billardiera scandens Common Apple-berry  **Recruitment:**  Episodic/Fire. Desirable period between disturbances is 30 years.  **Organic Litter:**  40 % cover  **Logs:**  20 m/0.1 ha.  **Weediness:**  There are no consistent weeds in this EVC.  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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 279: Heathland Thicket

Description:

Heathland Thicket can form linear patches along drainage lines or form thicket islands in shallow depressions within expanses of Sand Heathland. A dense, impenetrable thicket of Totem Poles Melaleuca decussata to 2 m tall dominates this floristic community. Due to the dense nature of the thicket, very little light reaches the ground stratum, so the ground is mostly bare, with occasional moss cover.

|  |  |  |  |
| --- | --- | --- | --- |
| **Life forms: Life form** Medium Shrub | **#Spp**  8 | **%Cover**  50% | **LF code**  MS |
| Small Shrub | 4 | 10% | SS |
| Prostrate Shrub | 1 | 1% | PS |
| Large Herb | 2 | 5% | LH |
| Medium Herb | 3 | 5% | MH |
| Large Tufted Graminoid | 1 | 5% | LTG |
| Medium to Small Tufted Graminoid | 4 | 10% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 5% | MNG |
| Scrambler or Climber | 2 | 1% | SC |
| Bryophytes/Lichens | na | 10% | BL |

|  |  |  |  |
| --- | --- | --- | --- |
| **LF Code**  MS |  | **Species typical of at least part of EVC range**  Melaleuca decussata | **Common Name**  Totem-poles |
| MS |  | Leptospermum continentale | Prickly Tea-tree |
| MS |  | Epacris impressa | Common Heath |
| MS |  | Hakea rostrata | Beaked Hakea |
| SS |  | Gompholobium huegelii | Common Wedge-pea |
| SS | r | Hibbertia cistiflora ssp. rostrata | Rock Rose Guinea-flower |
| SS |  | Hovea heterophylla | Common Hovea |
| SS |  | Hibbertia riparia | Erect Guinea-flower |
| PS |  | Astroloma humifusum | Cranberry Heath |
| PS |  | Acrotriche serrulata | Honey-pots |
| LH |  | Chrysocephalum apiculatum s.l. | Common Everlasting |
| LH |  | Ixodia achillaeoides | Ixodia |
| MH |  | Gonocarpus tetragynus | Common Raspwort |
| MH |  | Hypericum gramineum | Small St John's Wort |
| LTG |  | Xanthorrhoea australis | Austral Grass-tree |
| MTG |  | Schoenus apogon | Common Bog-sedge |
| MTG |  | Lomandra sororia | Small Mat-rush |
| MTG |  | Lomandra glauca s.l. | Pale Mat-rush |
| MTG |  | Dianella revoluta s.l. | Black-anther Flax-lily |
| MNG |  | Leptocarpus tenax | Slender Twine-rush |
| MNG |  | Hypolaena fastigiata | Tassel Rope-rush |
| TTG |  | Centrolepis strigosa ssp. strigosa | Hairy Centrolepis |
| SC |  | Cassytha pubescens s.s. | Downy Dodder-laurel |
| SC |  | Cassytha glabella | Slender Dodder-laurel |
| SC |  | Grevillea aquifolium | Variable Prickly Grevillea |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 279: Heathland Thicket - Greater Grampians bioregion | |
|  | **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 Hypochoeris glabra Smooth 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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 280: Floodplain Thicket

Description:

Eucalypt woodland to 15 m tall above an often tall dense thicket of understorey shrubs tolerant of seasonal waterlogging. The ground layer commonly consists of sedges and restionaceous species. Occurs on flood-plains where water running off ranges onto broad alluvial flats gives rise to a multitude of interlinking channels, and it is within and between these channels that Floodplain Thicket occurs. Soils are alluviums varying from black anaerobic alluvial clay sands to pale grey silty clays.

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species**  Eucalyptus spp. | **DBH(cm)**  80 cm | **#/ha**  10 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 10% | Eucalyptus camaldulensis  Eucalyptus leucoxylon Eucalyptus ovata  Eucalyptus viminalis | River Red Gum  Yellow Gum Swamp Gum  Manna Gum |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** | **#Spp** | **%Cover** | **LF code** |
| Immature Canopy Tree |  | 5% | IT |
| Understorey Tree or Large Shrub | 1 | 5% | T |
| Medium Shrub | 8 | 50% | MS |
| Small Shrub | 1 | 5% | SS |
| Large Herb | 1 | 5% | LH |
| Medium Herb | 2 | 1% | MH |
| Small or Prostrate Herb | 1 | 1% | SH |
| Large Tufted Graminoid | 4 | 15% | LTG |
| Medium to Small Tufted Graminoid | 2 | 5% | MTG |
| Medium to Tiny Non-tufted Graminoid | 3 | 15% | MNG |
| Bryophytes/Lichens | na | 20% | BL |

|  |  |  |
| --- | --- | --- |
| **LF Code**  T | **Species typical of at least part of EVC range**  Acacia melanoxylon | **Common Name**  Blackwood |
| MS | Hakea nodosa | Yellow Hakea |
| MS | Leptospermum continentale | Prickly Tea-tree |
| MS | Melaleuca squamea | Swamp Honey-myrtle |
| MS | Melaleuca squarrosa | Scented Paperbark |
| LH | Villarsia reniformis | Running Marsh-flower |
| MH | Gratiola peruviana | Austral Brooklime |
| SH | Gonocarpus micranthus | Creeping Raspwort |
| LTG | Gahnia sieberiana | Red-fruit Saw-sedge |
| LTG | Carex appressa | Tall Sedge |
| LTG | Juncus pallidus | Pale Rush |
| LTG | Baloskion tetraphyllum ssp. tetraphyllum | Tassel Cord-rush |
| MTG | Lepidosperma laterale | Variable Sword-sedge |
| MTG | Schoenus apogon | Common Bog-sedge |
| MNG | Leptocarpus tenax | Slender Twine-rush |
| MNG | Baumea tetragona | Square Twig-sedge |
| MNG | Hypolaena fastigiata | Tassel Rope-rush |
| SC | Cassytha glabella | Slender Dodder-laurel |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 280: Floodplain Thicket - Greater Grampians bioregion | |
|  | **Recruitment:**  Episodic/Flood. Desirable period between disturbances is 5 years.  **Organic Litter:**  20 % cover  **Logs:**  10 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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 282: Shrubby Woodland

Description:

Eucalypt woodland to 15 m tall with a tall and often dense shrubby understorey. Ground cover variously dominated by sedges, grasses and herbs. Soils generally duplex with sandy loam overlying heavy clay subsoil, prone to seasonal inundation periods. Commonly found on valley floors.

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species**  Eucalyptus spp. | **DBH(cm)**  70 cm | **#/ha**  15 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 20% | Eucalyptus obliqua  Eucalyptus camaldulensis | Messmate Stringybark  River Red-gum |

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

|  |  |  |  |
| --- | --- | --- | --- |
| **LF Code**  T |  | **Species typical of at least part of EVC range**  Acacia mearnsii | **Common Name**  Black Wattle |
| T |  | Acacia melanoxylon | Blackwood |
| MS |  | Banksia marginata | Silver Banksia |
| MS |  | Leptospermum continentale | Prickly Tea-tree |
| MS |  | Leptospermum scoparium | Manuka |
| MS |  | Hakea nodosa | Yellow Hakea |
| SS |  | Hibbertia riparia | Erect Guinea-flower |
| SS | r | Hibbertia cistiflora ssp. rostrata | Rock Rose Guinea-flower |
| PS |  | Astroloma humifusum | Cranberry Heath |
| PS |  | Acrotriche serrulata | Honey-pots |
| MH |  | Lagenophora stipitata | Common Bottle-daisy |
| MH |  | Hypericum gramineum | Small St John's Wort |
| MH |  | Euchiton collinus s.s. | Creeping Cudweed |
| SH | r | Asperula minima | Mossy Woodruff |
| LTG |  | Xanthorrhoea australis | Austral Grass-tree |
| LTG |  | Gahnia sieberiana | Red-fruit Saw-sedge |
| LNG |  | Gahnia radula | Thatch Saw-sedge |
| MTG |  | Lomandra sororia | Small Mat-rush |
| MTG |  | Schoenus apogon | Common Bog-sedge |
| MTG |  | Lomandra multiflora ssp. multiflora | Many-flowered Mat-rush |
| MTG |  | Lomandra filiformis | Wattle Mat-rush |
| MNG |  | Microlaena stipoides var. stipoides | Weeping Grass |
| MNG |  | Leptocarpus tenax | Slender Twine-rush |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 282: Shrubby Woodland - Greater Grampians bioregion | |
|  | **Recruitment:**  Continuous  **Organic Litter:**  20 % cover  **Logs:**  15 m/0.1 ha.  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  MH Hypochoeris radicata Cat's Ear high low MH Hypochoeris glabra Smooth Cat's-ear high low MH Cerastium glomeratum s.l. Common Mouse-ear Chickweed high low MH Galium murale Small Goosegrass high low  MH Anagallis arvensis Pimpernel high low  MTG Briza minor Lesser Quaking-grass high low  MTG Vulpia bromoides Squirrel-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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 283: Plains Sedgy Woodland

Description:

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

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species**  Eucalyptus spp. | **DBH(cm)**  70 cm | **#/ha**  15 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 10% | Eucalyptus leucoxylon  Eucalyptus camaldulensis Eucalyptus melliodora | Yellow Gum  River Red-gum Yellow Box |

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

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 283: Plains Sedgy Woodland – Greater Grampians bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  MS Hakea rugosa Dwarf Hakea  MS v Comesperma polygaloides Small Milkwort  SS Eutaxia microphylla Common Eutaxia  PS Astroloma humifusum Cranberry Heath  PS Acrotriche serrulata Honey-pots  LH Eryngium ovinum Blue Devil  LH Brachyscome cardiocarpa Swamp Daisy  LH Villarsia reniformis Running Marsh-flower  MH Utricularia dichotoma s.l. Fairies' Aprons  MH Drosera peltata ssp. peltata Pale Sundew  SH Solenogyne dominii Smooth Solenogyne  SH Myriocephalus rhizocephalus Woolly-heads  SH Hydrocotyle laxiflora Stinking Pennywort  LTG Amphibromus nervosus Common Swamp Wallaby-grass  LNG Baumea rubiginosa s.l. Soft Twig-rush  MTG Lepidosperma congestum Clustered Sword-sedge  MTG Austrodanthonia setacea Bristly Wallaby-grass  MTG Lachnagrostis filiformis var. filiformis Common Blown-grass  MTG Schoenus apogon Common Bog-sedge  MNG Chorizandra enodis Black Bristle-sedge  MNG Eleocharis acuta Common Spike-sedge  TTG Centrolepis aristata Pointed Centrolepis  TTG Centrolepis strigosa ssp. strigosa Hairy Centrolepis  TTG Centrolepis glabra Smooth Centrolepis  TTG Aphelia gracilis Slender Aphelia  SC Thysanotus patersonii Twining Fringe-lily  **Recruitment:**  Continuous  **Organic Litter:**  10 % cover  **Logs:**  15 m/0.1 ha.  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  LH Sonchus oleraceus Common Sow-thistle high low MH Hypochoeris radicata Cat's Ear high low MH Hypochoeris glabra Smooth Cat's-ear high low MH Cicendia filiformis Slender Cicendia high low  MH Anagallis arvensis Pimpernel high low  MTG Romulea rosea Onion Grass high low  MTG Briza minor Lesser Quaking-grass high low  MTG Vulpia bromoides Squirrel-tail Fescue high low  MNG Juncus capitatus Capitate Rush high low  TTG Cyperus tenellus Tiny Flat-sedge high low  TTG Isolepis hystrix Awned Club-sedge high low  Published by the Victorian Government Department of Sustainability and Environment May 2004  © The State of Victoria Department of Sustainability and Environment 2004  This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:   * the copyright owner is acknowledged; * no official connection is claimed; * the material is made available without charge or at cost; and * the material is not subject to inaccurate, misleading or derogatory treatment.   Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.  For more information contact: Customer Service Centre, 136 186  This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 284: Claypan Ephemeral Wetland

Description:

Herb-dominated vegetation occurring in shallow seasonally inundated depressions on cracking silty clays (within Alluvial Terraces Herb-rich Woodland), with a range of small herbs indicative of wetness.

|  |  |  |  |
| --- | --- | --- | --- |
| **Life Forms: Life form** | **#Spp** | **%Cover** | **LF code** |
| Medium Herb | 3 | 20% | MH |
| Small Herb | 7 | 15% | SH |
| Medium to Small Tufted Graminoid | 4 | 20% | MTG |
| Medium to Tiny Non-tufted Graminoid | 1 | 1% | MNG |
| Soil Crust | na | 10% | S/C |
| **Total understorey projective foliage cover** |  | **65%** |  |

|  |  |  |
| --- | --- | --- |
| **LF Code** | **Species typical of at least part of EVC range** | **Common Name** |
| MH | Myriophyllum simulans | Amphibious Water-milfoil |
| MH | Centipeda cunninghamii | Common Sneezeweed |
| SH | Dichondra repens | Kidney-weed |
| SH | Lobelia surrepens | Mud Pratia |
| MTG | Schoenus apogon | Common Bog-sedge |
| MNG | Distichlis distichophylla | Australian Salt-grass |

Recruitment:

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

Organic Litter:

10% cover

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Weediness:** |  | | | |
| **LF Code** | **Typical Weed Species** | **Common Name** | **Invasive** | **Impact** |
| LH  MH | Cirsium vulgare  Leontodon taraxacoides ssp. taraxacoides | Spear Thistle  Hairy Hawkbit | high  high | low  low |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 284: Claypan Ephemeral Wetland – Greater Grampians bioregion | |
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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 285: Dry Creekline Woodland

Description:

Shrub-dominated eucalypt woodland to 15m tall with a sedge and herb-dominated understorey. Occurs along small, narrow, ephemeral streams flowing north and west from the Grampians towards drier regions in the north. Streams are largely dry in summer and often contain coarse alluvial sand deposits derived from a variety of geologies.

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species**  Eucalyptus spp. | **DBH(cm)**  70 cm | **#/ha**  15 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 20% | Eucalyptus obliqua  Eucalyptus goniocalyx s.l.  Eucalyptus viminalis ssp. cygnetensis | Messmate Stringybark  Bundy  Rough-barked Manna Gum |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** | **#Spp** | **%Cover** | **LF code** |
| Immature Canopy Tree |  | 5% | IT |
| Medium Shrub | 4 | 20% | MS |
| Large Herb | 1 | 1% | LH |
| Medium Herb | 5 | 10% | MH |
| Large Tufted Graminoid | 1 | 5% | LTG |
| Medium to Small Tufted Graminoid | 5 | 20% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 5% | MNG |
| Tiny Tufted Graminoid\* | 2 | 1% | TTG |
| Bryophytes/Lichens | na | 20% | BL |

\* Largely seasonal life form

**Total understorey projective foliage cover 75%**

|  |  |  |
| --- | --- | --- |
| **LF Code**  MS | **Species typical of at least part of EVC range**  Melaleuca decussata | **Common Name**  Totem Poles |
| MS | Leptospermum continentale | Prickly Tea-tree |
| MS | Dodonaea viscosa | Sticky Hop-bush |
| MS | Calytrix tetragona | Common Fringe-myrtle |
| LH | Senecio tenuiflorus | Slender Fireweed |
| MH | Viola hederacea sensu Entwisle (1996) | Ivy-leaf Violet |
| MH | Gonocarpus elatus | Tall Raspwort |
| MH | Gonocarpus tetragynus | Rough Raspwort |
| MH | Acaena novae-zelandiae | Bidgee-widgee |
| SH | Hydrocotyle laxiflora | Stinking Pennywort |
| SH | Hydrocotyle callicarpa | Small Pennywort |
| SH | Goodenia humilis | Swamp Goodenia |
| LTG | Juncus pallidus | Pale Rush |
| MTG | Lepidosperma laterale | Variable Sword-sedge |
| MTG | Poa morrisii | Soft Tussock-grass |
| MTG | Juncus planifolius | Broad-leaf Rush |
| MTG | Juncus pauciflorus | Loose-flower Rush |
| MNG | Poa tenera | Slender Tussock-grass |
| MNG | Microlaena stipoides var. stipoides | Weeping Grass |
| TTG | Centrolepis strigosa ssp. strigosa | Hairy Centrolepis |
| TTG | Centrolepis aristata | Pointed Centrolepis |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 285: Dry Creekline Woodland - Greater Grampians bioregion | |
|  | **Recruitment:**  Continuous  **Organic Litter:**  20 % cover  **Logs:**  20 m/0.1 ha.  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  MH Hypochoeris radicata 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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 292: Red Gum Swamp

Description:

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

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species**  Eucalyptus spp. | **DBH(cm)**  80 cm | **#/ha**  10 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 15% | Eucalyptus camaldulensis | River Red-gum |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** | **#Spp** | **%Cover** | **LF code** |
| Immature Canopy Tree |  | 5% | IT |
| Large Herb | 2 | 10% | LH |
| Medium Herb | 7 | 25% | MH |
| Small or Prostrate Herb | 2 | 1% | SH |
| Large Tufted Graminoid | 2 | 15% | LTG |
| Medium to Small Tufted Graminoid | 6 | 20% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 15% | MNG |
| **Total understorey projective foliage cover** |  | **90%** |  |

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

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 292: Red Gum Swamp – Greater Grampians bioregion | |
|  | **Recruitment:**  Episodic/Flood – desirable period of disturbance is once every 5 years  **Organic Litter:**  10% Cover  **Logs:**  10m/0.1 ha  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  MH Hypochoeris radicata Cat's Ear high low  MNG Briza minor Lesser Quaking-grass high low  Published by the Victorian Government Department of Sustainability and Environment April 2006  © The State of Victoria Department of Sustainability and Environment 2006  This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:   * the copyright owner is acknowledged; * no official connection is claimed; * the material is made available without charge or at cost; and * the material is not subject to inaccurate, misleading or derogatory treatment.   Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be  directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.  For more information contact: Customer Service Centre, 136 186  This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication. |

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Greater Grampians bioregion

EVC 640: Creekline Sedgy Woodland

Description:

Sedge and rush-dominated eucalypt woodland to 15 m tall with amphibious herbs. Occurs along banks and adjacent wet flats of smaller intermittent creeks on coarse sands and stony alluvial soils and on the floodplains of larger rivers, in areas where annual rainfall is less than 500 mm per annum.

|  |  |  |
| --- | --- | --- |
| Large trees: |  | |
| Species  Eucalyptus spp. | DBH(cm)  80 cm | #/ha  15 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| %cover | Character Species | Common Name |
| 15% | Eucalyptus camaldulensis  Eucalyptus microcarpa | River Red Gum  Grey Box |

|  |  |  |  |
| --- | --- | --- | --- |
| Understorey: Life form | #Spp | %Cover | LF code |
| Immature Canopy Tree |  | 5% | IT |
| Understorey Tree or Large Shrub | 2 | 10% | T |
| Medium Shrub | 2 | 5% | MS |
| Small Shrub | 2 | 1% | SS |
| Large Herb | 2 | 5% | LH |
| Medium Herb | 5 | 10% | MH |
| Small or Prostrate Herb | 1 | 1% | SH |
| Large Tufted Graminoid | 3 | 15% | LTG |
| Large Non-tufted Graminoid | 1 | 5% | LNG |
| Medium to Small Tufted Graminoid | 6 | 20% | MTG |
| Bryophytes/Lichens | na | 10% | BL |
| Total understorey projective foliage cover |  | 80% |  |

|  |  |  |
| --- | --- | --- |
| LF Code | Species typical of at least part of EVC range | Common Name |
| T | Acacia spp. | Wattle |
| MS | Cassinia arcuata | Drooping Cassinia |
| MS | Acacia pycnantha | Golden Wattle |
| SS | Pimelea humilis | Common Rice-flower |
| MH | Gonocarpus tetragynus | Common Raspwort |
| MH | Acaena echinata | Sheep's Burr |
| LTG | Carex appressa | Tall Sedge |
| LTG | Carex tereticaulis | Sedge Rush |
| MTG | Cyperus gunnii ssp. gunnii | Flecked Flat-sedge |
| MTG | Elymus scaber var. scaber | Common Wheat-grass |
| MTG | Lachnagrostis filiformis | Common Blown-grass |

Recruitment:

Continuous

Organic Litter:

40% cover

Logs:

20m/0.1 ha

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 640: Creekline Sedgy Woodland – Greater Grampians bioregion | |
|  | Weediness:  LF Code Typical Weed Species Common Name Invasive Impact  LH Sonchus oleraceus Common Sow-thistle high low LH Cirsium vulgare Spear Thistle high low  LH Plantago lanceolata Ribwort high low  MH Hypochoeris radicata Cat's Ear high low  MH Anagallis arvensis Pimpernel high low LTG Phalaris aquatica Toowoomba Canary-grass high high MNG Briza maxima Large Quaking-grass high low  MNG Romulea rosea Onion Grass high low MNG Vulpia bromoides Squirrel-tail Fescue high low  MNG Briza minor Lesser Quaking-grass high low  MNG Aira elegantissima Delicate Hair-grass 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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 641: Riparian Woodland

Description:

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

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species**  Eucalyptus spp. | **DBH(cm)**  80 cm | **#/ha**  15 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 10% | Eucalyptus camaldulensis | River Red-gum |

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

|  |  |  |
| --- | --- | --- |
| **LF Code**  MS | **Species typical of at least part of EVC range**  Viminaria juncea | **Common Name**  Golden Spray |
| MS | Melaleuca decussata | Totem-poles |
| SS | Rubus parvifolius | Small-leaf Bramble |
| LH | Wahlenbergia gracilis s.s. | Sprawling Bluebell |
| LH | Myriophyllum crispatum | Upright Water-milfoil |
| MH | Rumex brownii | Slender Dock |
| MH | Oxalis perennans | Grassland Wood-sorrel |
| MH | Mentha australis | River Mint |
| MH | Acaena novae-zelandiae | Bidgee-widgee |
| LTG | Cyperus gunnii ssp. gunnii | Flecked Flat-sedge |
| LTG | Carex appressa | Tall Sedge |
| MTG | Lachnagrostis filiformis var. filiformis | Common Blown-grass |
| MTG | Juncus amabilis | Hollow Rush |
| MNG | Eleocharis acuta | Common Spike-sedge |
| SC | Calystegia sepium | Large Bindweed |

**Recruitment:**

Continuous

Organic Litter:

30% cover

Logs:

20m / 0.1 ha

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 641: Riparian Woodland – Greater Grampians bioregion | |
|  | **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  MS Rosa rubiginosa Sweet Briar high high  LH Sonchus oleraceus Common Sow-thistle high low  LH Cirsium vulgare Spear Thistle high high  LH Plantago lanceolata Ribwort high low  LH Helminthotheca echioides Ox-tongue high low LH Rumex crispus Curled Dock high low  LH Aster subulatus Aster-weed high low  LH Rorippa palustris Marsh Yellow-cress high high MH Leontodon taraxacoides ssp. taraxacoides Hairy Hawkbit high low  MH Hypochoeris radicata Cat's Ear high low  LTG Phalaris aquatica Toowoomba Canary-grass high high  LNG Holcus lanatus Yorkshire Fog high high MTG Bromus hordeaceus ssp. hordeaceus Soft Brome high low MTG Anthoxanthum odoratum Sweet Vernal-grass high high  MNG Paspalum distichum Water Couch high high  SC Galium aparine Cleavers high low  Published by the Victorian Government Department of Sustainability and Environment May 2004  © The State of Victoria Department of Sustainability and Environment 2004  This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:   * the copyright owner is acknowledged; * no official connection is claimed; * the material is made available without charge or at cost; and * the material is not subject to inaccurate, misleading or derogatory treatment.   Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.  For more information contact: Customer Service Centre, 136 186  This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication. |

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Greater Grampians bioregion

EVC 642: Basalt Shrubby Woodland

Description:

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

|  |  |  |
| --- | --- | --- |
| Large trees: |  | |
| Species  Eucalyptus spp. | DBH(cm)  70 cm | #/ha  15 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| %cover | Character Species | Common Name |
| 15% | Eucalyptus ovata | Swamp Gum |
|  | Eucalyptus viminalis | Manna Gum |

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

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

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 642: Basalt Shrubby Woodland – Greater Grampians bioregion | |
|  | Recruitment:  Continuous  Organic Litter:  20 % cover  Logs:  15 m/0.1 ha.  Weediness:  LF Code Typical Weed Species Common Name Invasive Impact  T Pinus radiata Radiata Pine high high  LH Centaurium tenuiflorum Slender Centaury high low  LH Plantago lanceolata Ribwort high low  LH Sonchus oleraceus Common Sow-thistle high low  LH Cirsium vulgare Spear Thistle high high  MH Hypochoeris radicata Cat's Ear high low  MH Centaurium erythraea Common Centaury high low MH Gamochaeta purpurea s.s. Spiked Cudweed high low  MH Leontodon taraxacoides ssp. taraxacoides Hairy Hawkbit high low LNG Holcus lanatus Yorkshire Fog high high  MTG Vulpia bromoides Squirrel-tail Fescue high low  MTG Briza minor Lesser Quaking-grass high low  MTG Briza maxima Large Quaking-grass high low MTG Anthoxanthum odoratum Sweet Vernal-grass high high MNG Aira elegantissima Delicate Hair-grass high low  MNG Cynosurus echinatus Rough Dog's-tail high low  SNG Sisyrinchium iridifolium Blue Pigroot 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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 647: Plains Sedgy Wetland

Description:

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

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

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

Recruitment:

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

Organic Litter:

10% cover

Logs:

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Weediness:** |  | | | |
| **LF Code**  MTG | **Typical Weed Species**  Juncus bulbosus | **Common Name**  Bulbous Rush | **Invasive**  high | **Impact**  high |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 647: Plains Sedgy Wetland – Greater Grampians bioregion | |
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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Greater Grampians bioregion

EVC 653: Aquatic Herbland

Description:

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

|  |  |  |  |
| --- | --- | --- | --- |
| Life Forms: Life form | #Spp | %Cover | LF code |
| Large Herb | 2 | 10% | LH |
| Medium Herb | 5 | 40% | MH |
| Small or Prostrate Herb | 2 | 10% | SH |
| Large Non-tufted Graminoid | 1 | 5% | LNG |
| Medium to Small Tufted Graminoid | 4 | 10% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 15% | MNG |
| Total understorey projective foliage cover |  | 90% |  |

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

Recruitment:

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

Organic Litter:

10% cover

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

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 653: Aquatic Herbland – Greater Grampians bioregion | |
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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 704: Lateritic Woodland

Description:

Low woodland to 15 m tall with a diverse shrubby understorey and supporting a wide variety of grasses and herbs, making it particularly species-rich. Occurs on gently undulating to flat ground with well-drained shallow lateritic soils of poor fertility.

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species**  Eucalyptus spp. | **DBH(cm)**  70 cm | **#/ha**  15 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover**  15% | **Character Species**  Eucalyptus leucoxylon | **Common Name**  Yellow Gum |
|  | Eucalyptus willisii | Shining Peppermint |
|  | Eucalyptus viminalis ssp. cygnetensis | Rough-barked Manna-gum |
|  | Eucalyptus melliodora | Yellow Box |
|  | Eucalyptus arenacea | Desert Stringybark |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form**  Immature Canopy Tree | **#Spp** | **%Cover**  5% | **LF code**  IT |
| Understorey Tree or Large Shrub | 1 | 5% | T |
| Medium Shrub | 11 | 25% | MS |
| Small Shrub | 11 | 20% | SS |
| Prostrate Shrub | 4 | 5% | PS |
| Large Herb | 2 | 5% | LH |
| Medium Herb | 14 | 10% | MH |
| Small or Prostrate Herb | 4 | 5% | SH |
| Large Tufted Graminoid | 3 | 10% | LTG |
| Medium to Small Tufted Graminoid | 15 | 20% | MTG |
| Medium to Tiny Non-tufted Graminoid | 4 | 10% | MNG |
| Tiny Tufted Graminoid\* | 4 | 1% | TTG |
| Scrambler or Climber | 3 | 5% | SC |
| Bryophytes/Lichens | na | 10% | BL |
| Soil Crust | na | 10% | S/C |

\* Largely seasonal life form

Recruitment:

Continuous

Organic Litter:

20% cover

Logs:

15 m / 0.1 ha

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 704: Lateritic Woodland - Greater Grampians bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  MS Leptospermum myrsinoides Heath Tea-tree  MS Grevillea alpina Cat's Claw Grevillea  MS Brachyloma daphnoides Daphne Heath  MS Banksia marginata Silver Banksia  SS Pimelea humilis Common Rice-flower  SS Astroloma conostephioides Flame Heath  SS Hibbertia stricta s.l. Upright Guinea-flower  SS Dillwynia sericea s.l. Showy Parrot-pea  PS Astroloma humifusum Cranberry Heath  PS Acrotriche serrulata Honey-pots  PS Styphelia adscendens Golden Heath  PS Bossiaea prostrata Creeping Bossiaea  LH Ixodia achillaeoides ssp. alata Ixodia  MH Drosera peltata ssp. peltata Pale Sundew  MH Chamaescilla corymbosa var. corymbosa Blue Stars  MH Burchardia umbellata Milkmaids  SH Hydrocotyle laxiflora Stinking Pennywort  SH Drosera glanduligera Scarlet Sundew  SH Siloxerus multiflorus Small Wrinklewort  SH Viola cleistogamoides Hidden Violet  LTG Xanthorrhoea australis Austral Grass-tree  LTG Austrostipa mollis Supple Spear-grass  LTG Gahnia radula Thatch Saw-sedge  LTG Xanthorrhoea minor ssp. lutea Small Grass-tree  MTG Dichelachne crinita Long-hair Plume-grass  MTG Pentapogon quadrifidus Five-awned Spear-grass  MTG Neurachne alopecuroidea Fox-tail Mulga-grass  MTG Dianella revoluta s.l. Black-anther Flax-lily  MNG Microlaena stipoides var. stipoides Weeping Grass  MNG Lepidobolus drapetocoleus Scale Shedder  MNG Hypolaena fastigiata Tassel Rope-rush  TTG Centrolepis strigosa ssp. strigosa Hairy Centrolepis  TTG Centrolepis aristata Pointed Centrolepis  TTG Schoenus breviculmis Matted Bog-sedge  TTG Isolepis marginata Little Club-sedge  EP Amyema miquelii Box Mistletoe  SC Thysanotus patersonii Twining Fringe-lily  SC Grevillea aquifolium Variable Prickly Grevillea  SC Drosera macrantha Climbing Sundew  SC Cassytha pubescens s.s. Downy Dodder-laurel  SC Cassytha glabella Slender Dodder-laurel  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  LH Sonchus oleraceus Common Sow-thistle high low  MH Hypochoeris glabra Smooth Cat's-ear high low MH Hypochoeris radicata Cat's Ear high low  MH Arctotheca calendula Cape Weed high low  MH Cerastium glomeratum s.l. Common Mouse-ear Chickweed high low MTG Briza minor Lesser Quaking-grass high low  MTG Romulea rosea Onion Grass high low  MTG Briza maxima Large Quaking-grass high low  MNG Aira elegantissima Delicate Hair-grass high low  MNG Aira cupaniana Quicksilver Grass high low  MNG Aira caryophyllea Silvery Hair-grass high low  TTG Cyperus tenellus Tiny Flat-sedge 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. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 709: Scree-slope Woodland

Description:

Eucalypt woodland to 15 m tall with an open shrub layer over a grassy ground layer with small sandstone boulders. Occurs on scree slopes a the base of cliffs where soils are generally shallow and the exposed rocky conditions result in relatively dry well- drained conditions.

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species**  Callitris spp. | **DBH(cm)**  40 cm | **#/ha** |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **% cover** | **Character Species** | **Common Name** |
| 20% | Callitris gracilis ssp. murrayensis | Slender Cypress-pine |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** | **#Spp** | **%Cover** | **LF code** |
| Immature Canopy Tree |  | 5% | IT |
| Medium Shrub | 2 | 10% | MS |
| Small Shrub | 2 | 5% | SS |
| Prostrate Shrub | 2 | 5% | PS |
| Large Herb | 3 | 10% | LH |
| Medium Herb | 4 | 5% | MH |
| Small or Prostrate Herb | 1 | 1% | SH |
| Large Tufted Graminoid | 1 | 1% | LTG |
| Medium to Small Tufted Graminoid | 5 | 25% | MTG |
| Bryophytes/Lichens | na | 10% | BL |
| Soil Crust | na | 10% | S/C |
| **Total understorey projective foliage cover** |  | **80%** |  |

**Recruitment:**

Continuous

Organic Litter:

15% cover

Logs:

20m/0.1 ha.

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 709: Scree-slope Woodland – Greater Grampians bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  MS Dodonaea viscosa Sticky Hop-bush  PS Astroloma humifusum Cranberry Heath  LH Wahlenbergia gracilis s.l. Sprawling Bluebell  LH Walenbergia stricta s.l. Tall Bluebell  MH Plantago hispida Hairy plantain  MH Gonocarpus elatus Tall Raspwort  MH Galium gaudichaudii Rough Bedstraw  MH Daucus glochidiatus Austral Carrot  LTG Austrostipa mollis Supple Spear-grass  MTG Themeda triandra Kangaroo Grass  MTG Austrostipa scabra Rough Spear-grass  MTG Austrodanthonia setacea Bristly Wallaby-grass  SC Glycine clandestina Twining Glycine  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  T Olea europaea Olive high high  MS Lycium ferocissimum Boxthorn high high  LH Centaurium tenuiflorum Slender Centaury high low  LH Gazania linearis Gazania high high  LH Opuntia robusta Wheel Cactus high high  MH Hypochoeris radicata Cat's Ear high low  MH Hypochoeris glabra Smooth Cat's-ear high low MH Trifolium campestre var. campestre Hop Clover high low MH Trifolium angustifolium var. angustifolium Narrow-leaf Clover high low MH Trifolium arvense var. arvense Hare's-foot Clover high low MH Petrorhagia velutina Velvety Pink high low  MH Oxalis pes-caprae Soursob high high  MH Silene gallica French Catchfly high high  MH Petrorhagia velutina Velvety Pink high low  MTG Briza minor Lesser Quaking-grass high low  MTG Briza maxima Large Quaking-grass high low  MTG Romulea rosea Onion Grass high low  MTG Vulpia bromoides Squirrel-tail Fescue high low  MTG Lolium rigidum Wimmera Rye-grass high low  LNG Avena fatua Wild Oat high high  MNG Aira elegantissima Delicate Hair-grass high low  MNG Ehrharta calycina Perennial Veldt Grass high high  MNG Vulpia myuros f. myuros Rat's-tail Fescue high high  MNG Juncus capitatus Capitate Rush high low  MNG Bromus rubens Red Brome high low  TTG Poa bulbosa Bulbous Meadow-grass high high  SC Asparagus asparagoides Bridal Creeper high high  Published by the Victorian Government Department of Sustainability and Environment December 2005  © The State of Victoria Department of Sustainability and Environment 2005  This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:   * the copyright owner is acknowledged; * no official connection is claimed; * the material is made available without charge or at cost; and * the material is not subject to inaccurate, misleading or derogatory treatment.   Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be  directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.  For more information contact: Customer Service Centre, 136 186  This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication. |

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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 710: Damp Heathland

Description:

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Life Forms: Life form** | **#Spp** | **%Cover** | **LF code** |
| Medium Shrub | 6 | 30% | MS |
| Small Shrub | 5 | 20% | SS |
| Prostrate Shrub | 2 | 5% | PS |
| Medium Herb | 6 | 10% | MH |
| Small or Prostrate Herb | 2 | 1% | SH |
| Large Tufted Graminoid | 1 | 5% | LTG |
| Large Non-tufted Graminoid | 1 | 1% | LNG |
| Medium to Small Tufted Graminoid | 4 | 10% | MTG |
| Medium to Tiny Non-tufted Graminoid | 3 | 15% | MNG |
| Scrambler or Climber | 2 | 5% | SC |
| Bryophytes/Lichens | na | 10% | BL |
| Soil Crust | na | 10% | S/C |

|  |  |  |
| --- | --- | --- |
| **LF Code**  MS | **Species typical of at least part of EVC range**  Leptospermum continentale | **Common Name**  Prickly Tea-tree |
| MS | Epacris impressa | Common Heath |
| MS | Banksia marginata | Silver Banksia |
| MS | Leptospermum myrsinoides | Heath Tea-tree |
| SS | Pultenaea stricta | Rigid Bush-pea |
| SS | Hibbertia fasciculata var. prostrata | Bundled Guinea-flower |
| SS | Dillwynia glaberrima | Smooth Parrot-pea |
| SS | Leucopogon glacialis | Twisted Beard-heath |
| PS | Xanthosia dissecta s.l. | Cut-leaf Xanthosia |
| MH | Gonocarpus tetragynus | Common Raspwort |
| MH | Argentipallium obtusifolium | Blunt Everlasting |
| MH | Drosera peltata ssp. auriculata | Tall Sundew |
| MH | Selaginella uliginosa | Swamp Selaginella |
| SH | Drosera pygmaea | Tiny Sundew |
| LTG | Gahnia siberiana | Red-fruit Saw-sedge |
| MTG | Patersonia fragilis | Short Purple-flag |
| MTG | Schoenus apogon | Common Bog-sedge |
| MNG | Hypolaena fastigiata | Tassel Rope-rush |
| MNG | Leptocarpus tenax | Slender Twine-rush |
| MNG | Baumea tetragona | Square Twig-sedge |
| SC | Cassytha pubescens s.s. | Downy Dodder-laurel |
| SC | Cassytha glabella | Slender Dodder-laurel |

Recruitment:

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

Organic Litter:

20% cover

Weediness:

There are no consistent weeds in this EVC.

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 710: Damp Heathland – Greater Grampians bioregion | |
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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 803: Plains Woodland

Description:

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

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species** | **DBH(cm)** | **#/ha** |
| Eucalyptus spp.  Allocasuarina luehmannii | 70 cm  40 cm | 15 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 15% | Eucalyptus leucoxylon  Allocasuarina luehmannii Eucalyptus microcarpa Eucalyptus melliodora | Yellow Gum  Buloke Grey Box Yellow Box |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** | **#Spp** | **%Cover** | **LF code** |
| Immature Canopy Tree |  | 5% | IT |
| Medium Shrub | 2 | 5% | MS |
| Small Shrub | 2 | 5% | SS |
| Prostrate Shrub | 1 | 1% | PS |
| Large Herb | 1 | 1% | LH |
| Medium Herb | 20 | 25% | MH |
| Small or Prostrate Herb | 4 | 10% | SH |
| Large Tufted Graminoid | 1 | 5% | LTG |
| Large Non-tufted Graminoid | 1 | 1% | LNG |
| Medium to Small Tufted Graminoid | 16 | 30% | MTG |
| Medium to Tiny Non-tufted Graminoid | 3 | 5% | MNG |
| Bryophytes/Lichens | na | 10% | BL |

**Recruitment:**

Continuous

Organic Litter:

20 % cover

Logs:

10 m/0.1 ha.

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 803: Plains Woodland – Greater Grampians bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  MS Acacia pycnantha Golden Wattle  MS Acacia acinacea s.l. Gold-dust Wattle  SS Eutaxia microphylla var. microphylla Common Eutaxia  PS Astroloma humifusum Cranberry Heath  LH Senecio quadridentatus Cotton Fireweed  MH Acaena echinata Sheep's Burr  MH Plantago gaudichaudii Narrow Plantain  MH Maireana enchylaenoides Wingless Bluebush  MH Calocephalus citreus Lemon Beauty-heads  SH Solenogyne dominii Smooth Solenogyne  SH Oxalis perennans Grassland Wood-sorrel  SH Daucus glochidiatus Austral Carrot  SH Goodenia pinnatifida Cut-leaf Goodenia  LTG Austrostipa mollis Supple Spear-grass  MTG Austrostipa scabra Rough Spear-grass  MTG Austrodanthonia setacea Bristly Wallaby-grass  MTG Dianella revoluta s.s. Black-anther Flax-lily  MTG Austrodanthonia caespitosa Common Wallaby-grass  MNG Wurmbea dioica Common Early Nancy  TTG Centrolepis strigosa ssp. strigosa Hairy Centrolepis  TTG Centrolepis aristata Pointed Centrolepis  EP Amyema miquelii Box Mistletoe  SC Thysanotus patersonii Twining Fringe-lily  SC Convolvulus erubescens spp. agg. Pink Bindweed  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  LH Sonchus oleraceus Common Sow-thistle high low  MH Hypochoeris radicata Cat's Ear high low MH Trifolium angustifolium var. angustifolium Narrow-leaf Clover high low  MH Hypochoeris glabra Smooth Cat's-ear high low  MH Arctotheca calendula Cape Weed high low  MH Petrorhagia velutina Velvety Pink high low  MH Trifolium dubium Suckling Clover high low  MH Anagallis arvensis Pimpernel high low  SH Trifolium glomeratum Cluster Clover high low  LNG Avena fatua Wild Oat high low  MTG Romulea rosea Onion Grass high low  MTG Briza minor Lesser Quaking-grass high low  MTG Briza maxima Large Quaking-grass high low  MTG Lolium rigidum Wimmera Rye-grass high low  MTG Vulpia bromoides Squirrel-tail Fescue high low  MNG Vulpia myuros Rat's-tail Fescue high low  MNG Juncus capitatus Capitate Rush high low  MNG Bromus rubens Red Brome 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. |

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Greater Grampians bioregion

EVC 821: Tall Marsh

Description:

Closed to open grassland/sedgeland to 3 m tall, dominated by Common Reed and Cumbungi. Small aquatic and semi-aquatic species occur amongst the reeds. Occurs on Quaternary sedimentary geology of mainly estuarine sands, soils are peaty, silty clays, and average annual rainfall is approximately 600 mm. It requires shallow water (to 1 m deep) and low current-scour, and can only tolerate very low levels of salinity.

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

|  |  |  |
| --- | --- | --- |
| LF Code  LH | Species typical of at least part of EVC range  Myriophyllum verrucosum | Common Name  Red Water-milfoil |
| LH | Villarsia reniformis | Running Marsh-flower |
| MH | Rumex bidens | Mud Dock |
| MH | Lilaeopsis polyantha | Australian Lilaeopsis |
| MH | Lepilaena bilocularis | Small-fruit Water-mat |
| SH | Lemna disperma | Common Duckweed |
| SH | Azolla filiculoides | Pacific Azolla |
| SH | Wolffia australiana | Tiny Duckweed |
| SH | Mimulus repens | Creeping Monkey-flower |
| LTG | Triglochin procerum s.l. | Water Ribbons |
| LTG | Juncus ingens | Giant Rush |
| LNG | Phragmites australis | Common Reed |
| LNG | Typha domingensis | Cumbungi |
| LNG | Typha orientalis | Broad-leaf Cumbungi |
| MNG | Lepilaena cylindrocarpa | Long-fruit Water-mat |
| MNG | Eleocharis acuta | Common Spike-sedge |

Recruitment:

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

Organic Litter:

10% cover

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Weediness: |  | | | |
| LF Code | Typical Weed Species | Common Name | Invasive | Impact |
| MH MNG | Cotula coronopifolia Paspalum distichum | Water Buttons Water Couch | high high | high high |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 821: Tall Marsh – Greater Grampians bioregion | |
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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Greater Grampians bioregion

EVC 882: Shallow Sands Woodland

Description:

Woodland or open-forest to 15 m tall, with a sparse shrub layer of heathy, ericoid shrubs and a species-rich ground cover dominated by grasses and annual herbs. Sedges may be locally common. Typically it occurs between the heavier soils of the plains and the deep-sand aeolian dunefields which overlay these plains, but also occurs on broader areas of plains covered by shallow fluvial, outwash or aeolian sands overlaying drainage-impeding clays.

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species**  Eucalyptus spp. | **DBH(cm)**  70 cm | **#/ha**  15 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 15% | Eucalyptus leucoxylon  Eucalyptus ovata | Yellow Gum  Swamp Gum |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** | **#Spp** | **%Cover** | **LF code** |
| Immature Canopy Tree |  | 5% | IT |
| Understorey Tree or Large Shrub | 1 | 5% | T |
| Medium Shrub | 5 | 20% | MS |
| Small Shrub | 6 | 15% | SS |
| Prostrate Shrub | 3 | 5% | PS |
| Large Herb | 3 | 5% | LH |
| Medium Herb | 19 | 20% | MH |
| Small or Prostrate Herb | 4 | 5% | SH |
| Large Tufted Graminoid | 2 | 5% | LTG |
| Medium to Small Tufted Graminoid | 13 | 20% | MTG |
| Medium to Tiny Non-tufted Graminoid | 4 | 5% | MNG |
| Bryophytes/Lichens | na | 10% | BL |
| Soil Crust | na | 10% | S/C |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 882: Shallow Sands Woodland - Greater Grampians bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  T Allocasuarina verticillata Drooping Sheoke  MS Calytrix tetragona Common Fringe-myrtle  MS Leptospermum myrsinoides Heath Tea-tree  MS Banksia marginata Silver Banksia  MS Acacia verticillata Prickly Moses  SS Hibbertia stricta s.l. Upright Guinea-flower  SS Astroloma conostephioides Flame Heath  SS Isopogon ceratophyllus Horny Cone-bush  SS Leucopogon virgatus Common Beard-heath  PS Astroloma humifusum Cranberry Heath  PS Acrotriche serrulata Honey-pots  PS Bossiaea prostrata Creeping Bossiaea  LH Senecio tenuiflorus Slender Fireweed  LH Senecio quadridentatus Cotton Fireweed  MH Drosera peltata ssp. peltata Pale Sundew  MH Acaena echinata Sheep's Burr  SH Hydrocotyle laxiflora Stinking Pennywort  SH Siloxerus multiflorus Small Wrinklewort  SH Phyllangium divergens Wiry Mitrewort  SH Kennedia prostrata Running Postman  LTG Austrostipa mollis Supple Spear-grass  LTG r Xanthorrhoea caespitosa Tufted Grass-tree  MTG Schoenus apogon Common Bog-sedge  MTG Austrodanthonia geniculata Kneed Wallaby-grass  MTG Lepidosperma carphoides Black Rapier-sedge  MTG Neurachne alopecuroidea Fox-tail Mulga-grass  MNG Microlaena stipoides var. stipoides Weeping Grass  MNG Microtis unifolia Common Onion-orchid  TTG Centrolepis aristata Pointed Centrolepis  TTG Centrolepis strigosa ssp. strigosa Hairy Centrolepis  TTG Aphelia pumilio Dwarf Aphelia  TTG Schoenus breviculmis Matted Bog-sedge  SC Thysanotus patersonii Twining Fringe-lily  **Recruitment:**  Continuous  **Organic Litter:**  20 % cover  **Logs:**  15 m/0.1 ha.  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  MH Hypochoeris radicata Cat's Ear high low  MH Hypochoeris glabra Smooth Cat's-ear high low MH Trifolium campestre var. campestre Hop Clover high low  MH Centaurium erythraea Common Centaury high low  MH Anagallis arvensis Pimpernel high low  MH Cicendia filiformis Slender Cicendia high low  MTG Briza minor Lesser Quaking-grass high low  MTG Briza maxima Large Quaking-grass high low  MTG Romulea rosea Onion Grass high low  MNG Aira elegantissima Delicate Hair-grass high low  MNG Aira caryophyllea Silvery Hair-grass high low  MNG Juncus capitatus Capitate Rush 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. |

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