

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

Goldfields bioregion

EVC 3: Damp Sands Herb-rich Woodland

###### Description:

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

Large trees:

|  |  |  |
| --- | --- | --- |
| Species | DBH(cm) | #/ha |
| Eucalyptus spp. | 70 cm | 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 | 3 | 10% | MS |
| Small Shrub | 3 | 5% | SS |
| Medium Herb | 16 | 20% | MH |
| Small or Prostrate Herb | 7 | 15% | SH |
| Large Tufted Graminoid | 1 | 10% | LTG |
| Medium to Small Tufted Graminoid | 10 | 15% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 10% | MNG |
| Ground Fern | 1 | 10% | GF |
| Bryophytes/Lichens | na | 10% | BL |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 3: Damp Sands Herb-rich Woodland – Goldfields bioregion | |
|  | LF Code Species typical of at least part of EVC range Common Name  T Acacia mearnsii Black Wattle  MS Bursaria spinosa Sweet Bursaria  MS Acacia verticillata Prickly Moses  MS Ozothamnus ferrugineus Tree Everlasting  MS Leptospermum continentale Prickly Tea-tree  SS Pimelea humilis Common Rice-flower  SS Lissanthe strigosa ssp. subulata Peach Heath  SS Hibbertia riparia Erect Guinea-flower  MH Geranium solanderi s.l. Austral Cranesbill  MH Drosera peltata ssp. auriculata Tall Sundew  MH Hydrocotyle foveolata Yellow Pennywort  MH Acaena novae-zelandiae Bidgee-widgee  SH Drosera whittakeri ssp. aberrans Scented Sundew  SH Oxalis exilis Shady Wood-sorrel  SH Viola cleistogamoides Hidden Violet  SH Opercularia ovata Broad-leaf Stinkweed  LTG Austrostipa rudis ssp. nervosa Veined Spear-grass  LTG Juncus pallidus Pale Rush  MTG Poa sieberiana var. sieberiana Grey Tussock-grass  MTG Lomandra filiformis ssp. coriacea Wattle Mat-rush MTG Austrodanthonia racemosa var. racemosa Stiped Wallaby-grass  MTG Lomandra filiformis Wattle 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.  Weediness:  LF Code Typical Weed Species Common Name Invasive Impact  T Pinus radiata Radiata Pine low high MH Leontodon taraxacoides ssp. taraxacoides Hairy Hawkbit high low MH Hypochoeris radicata Cat's Ear high low  LNG Holcus lanatus Yorkshire Fog high high  MTG Anthoxanthum odoratum Sweet Vernal-grass high high  MTG Juncus microcephalus Tiny-headed Rush low low  MTG Briza maxima Large Quaking-grass high low  MNG Aira caryophyllea Silvery 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**

Goldfields 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 | Callistemon sieberi | River Bottle-brush |
| MS | Hymenanthera dentata s.l. | Tree Violet |
| MS | Bursaria spinosa | Sweet Bursaria |
| 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

|  |  |
| --- | --- |
| EVC 19: Riparian Shrubland – Goldfields 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**

Goldfields 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 macrorhyncha  Eucalyptus polyanthemos Eucalyptus tricarpa  Eucalyptus goniocalyx s.s. | Red Stringybark  Red Box  Red Ironbark Bundy |

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

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 20: Heathy Dry Forest - Goldfields bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  MS Brachyloma daphnoides Daphne Heath  MS Acacia pycnantha Golden Wattle  MS Grevillea alpina Cat's Claw Grevillea  MS Cassinia arcuata Drooping Cassinia  SS Tetratheca ciliata Pink-bells  SS Hovea heterophylla Common Hovea  SS Leucopogon virgatus Common Beard-heath  SS Cheiranthera cyanea var. cyanea Blue Finger-flower  PS Acrotriche serrulata Honey-pots  PS Astroloma humifusum Cranberry Heath  LH Senecio tenuiflorus Slender Fireweed  LH Wahlenbergia stricta Tall Bluebell  LH Xerochrysum viscosum Shiny Everlasting  MH Gonocarpus tetragynus Common Raspwort  MH Drosera peltata ssp. auriculata Tall Sundew  SH Opercularia varia Variable Stinkweed  SH Hydrocotyle laxiflora Stinking Pennywort  LTG Austrostipa mollis Supple Spear-grass  MTG Joycea pallida Silvertop Wallaby-grass  MTG Lomandra filiformis Wattle Mat-rush  MTG Poa sieberiana Grey Tussock-grass  MTG Dianella revoluta s.l. Black-anther Flax-lily  MNG Microlaena stipoides var. stipoides Weeping Grass  SC Thysanotus patersonii Twining Fringe-lily  **Recruitment:**  Episodic/Fire. Desirable period between disturbances is 20 years.  **Organic Litter:**  20 % cover  **Logs:**  20 m/0.1 ha.  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  MH Hypochoeris radicata Cat's Ear high low MH Hypochoeris glabra Smooth Cat's-ear high low  MTG Briza maxima Large Quaking-grass high low  MTG Briza minor Lesser Quaking-grass high low  MNG Aira elegantissima Delicate Hair-grass high low  MTG Vulpia spp. 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**

Goldfields bioregion

EVC 21: Shrubby Dry Forest

##### Description:

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

##### Large trees:

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

**Tree Canopy Cover:**

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 30% | Eucalyptus cypellocarpa  Eucalyptus obliqua | Mountain Grey-gum  Messmate Stringybark |

**Life Forms:**

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

|  |  |  |
| --- | --- | --- |
| **LF Code**  MS | **Species typical of at least part of EVC range**  Spyridium parvifolium | **Common Name**  Dusty Miller |
| MS | Acacia myrtifolia | Myrtle Wattle |
| MS | Banksia marginata | Silver Banksia |
| MS | Hakea sericea s.l. | Bushy Needlewood |
| SS | Hibbertia stricta s.l. | Upright Guinea-flower |
| SS | Platylobium obtusangulum | Common Flat-pea |
| SS | Isopogon ceratophyllus | Horny Cone-bush |
| SS | Pultenaea humilis | Dwarf Bush-pea |
| PS | Acrotriche serrulata | Honey-pots |
| MH | Drosera peltata ssp. auriculata | Tall Sundew |
| LTG | Xanthorrhoea australis | Austral Grass-tree |
| MTG | Lepidosperma semiteres | Wire Rapier-sedge |
| MTG | Poa australis spp. agg. | Tussock Grass |

**Recruitment:**

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

##### Organic Litter:

20 % cover

##### Logs:

20 m/0.1 ha.

##### Weediness:

There are no consistent weeds in this EVC.

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 21: Shrubby Dry Forest – Goldfields bioregion | |
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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Goldfields bioregion

EVC 22: Grassy Dry Forest

##### Description:

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

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

##### Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 30% | Eucalyptus macrorhyncha  Eucalyptus polyanthemos Eucalyptus melliodora  Eucalyptus goniocalyx s.s. | Red Stringybark  Red Box Yellow Box Bundy |

|  |  |  |  |
| --- | --- | --- | --- |
| **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 | 3 | 5% | SS |
| Prostrate Shrub | 2 | 1% | PS |
| Large Herb | 3 | 10% | LH |
| Medium Herb | 16 | 30% | MH |
| Small or Prostrate Herb | 3 | 5% | SH |
| Large Tufted Graminoid | 2 | 5% | LTG |
| Medium to Small Tufted Graminoid | 13 | 30% | MTG |
| Medium to Tiny Non-tufted Graminoid | 4 | 5% | MNG |
| Scrambler or Climber | 1 | 1% | SC |
| Ground Fern | 1 | 5% | GF |
| Bryophytes/Lichens | na | 10% | BL |
| Soil Crust | na | 10% | S/C |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 22: Grassy Dry Forest - Goldfields bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  MS Acacia paradoxa Hedge Wattle  MS Cassinia arcuata Drooping Cassinia  MS Daviesia ulicifolia Gorse Bitter-pea  MS Acacia acinacea s.l. Gold-dust Wattle  SS Hovea heterophylla Common Hovea  SS Pimelea humilis Common Rice-flower  SS Acacia aculeatissima Thin-leaf Wattle  PS Acrotriche serrulata Honey-pots  PS Astroloma humifusum Cranberry Heath  LH Senecio tenuiflorus Slender Fireweed  LH Wahlenbergia stricta Tall Bluebell  LH Senecio quadridentatus Cotton Fireweed  MH Hypericum gramineum Small St John's Wort  MH Geranium solanderi s.l. Austral Cranesbill  SH Daucus glochidiatus Australian Carrot  SH Hydrocotyle laxiflora Stinking Pennywort  SH Phyllangium divergens Wiry Mitrewort  LTG Austrostipa mollis Supple Spear-grass  MTG Joycea pallida Silvertop Wallaby-grass  MTG Lomandra filiformis Wattle Mat-rush  MTG Poa sieberiana Grey Tussock-grass  MTG Dianella revoluta s.l. Black-anther Flax-lily  MNG Microlaena stipoides var. stipoides Weeping Grass  EP Amyema miquelii Box Mistletoe  SC Hardenbergia violacea Purple Coral-pea  **Recruitment:**  Continuous  **Organic Litter:**  20 % cover  **Logs:**  20 m/0.1 ha.  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  MH 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 Cerastium glomeratum s.l. Common Mouse-ear Chickweed high low MH Centaurium erythraea Common Centaury high low  MH Anagallis arvensis Pimpernel high low MH Trifolium arvense var. arvense Hare's-foot Clover high low  MH Galium divaricatum Slender Bedstraw high low  MTG Briza minor Lesser Quaking-grass high low  MTG Briza maxima Large Quaking-grass high low  MTG Bromus diandrus Great Brome high low  MNG Aira elegantissima Delicate Hair-grass high low  MNG Bromus madritensis Madrid Brome high low  MNG Vulpia myuros Rat's-tail Fescue high low  Published by the Victorian Government Department of Sustainability and Environment April 2004  © The State of Victoria Department of Sustainability and Environment 2004  This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:   * the copyright owner is acknowledged; * no official connection is claimed; * the material is made available without charge or at cost; and * the material is not subject to inaccurate, misleading or derogatory treatment.   Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.  For more information contact: Customer Service Centre, 136 186  This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication. |

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

Goldfields bioregion

EVC 23: Herb-rich Foothill Forest

##### Description:

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

##### Large trees:

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

Eucalyptus spp. 70 cm 20 / ha

##### Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 40% | Eucalyptus obliqua  Eucalyptus radiata Eucalyptus viminalis  Eucalyptus globulus ssp. bicostata | Messmate Stringybark  Narrow-leaved Peppermint Manna Gum  Eurabbie |

|  |  |  |  |
| --- | --- | --- | --- |
| **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 |
| Prostrate Shrub | 1 | 1% | PS |
| Large Herb | 4 | 5% | LH |
| Medium Herb | 11 | 25% | MH |
| Small or Prostrate Herb | 3 | 5% | SH |
| Large Tufted Graminoid | 2 | 5% | LTG |
| Large Non-tufted Graminoid | 1 | 5% | LNG |
| Medium to Small Tufted Graminoid | 6 | 20% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 5% | MNG |
| Ground Fern | 2 | 10% | GF |
| Scrambler or Climber | 3 | 5% | SC |
| Bryophytes/Lichens | na | 20% | BL |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 23: Herb-rich Foothill Forest – Goldfields bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  T Acacia dealbata Silver Wattle  MS Acacia mucronata Narrow-leaf Wattle  MS Coprosma quadrifida Prickly Currant-bush  SS Hovea heterophylla Common Hovea  PS Acrotriche prostrata Trailing Ground-berry  LH Wahlenbergia stricta Tall Bluebell  LH Senecio tenuiflorus Slender Fireweed  LH Senecio minimus Shrubby Fireweed  LH Senecio quadridentatus Cotton Fireweed  MH Stellaria pungens Prickly Starwort  MH Viola hederacea sensu Willis (1972) Ivy-leaf Violet  MH Acaena novae-zelandiae Bidgee-widgee  SH Dichondra repens Kidney-weed  SH Hydrocotyle laxiflora Stinking Pennywort  LTG Lomandra longifolia ssp. longifolia Spiny-headed Mat-rush  MTG Lomandra filiformis ssp. coriacea Wattle Mat-rush  MTG Luzula meridionalis var. flaccida Common Woodrush  MTG Austrodanthonia pilosa Velvet Wallaby-grass  MTG Poa ensiformis Sword Tussock-grass  MNG Microlaena stipoides var. stipoides Weeping Grass  MNG Poa tenera Slender Tussock-grass  MNG Echinopogon ovatus Common Hedgehog-grass  GF Pteridium esculentum Austral Bracken  GF Asplenium flabellifolium Necklace Fern  SC Clematis aristata Mountain Clematis  SC Glycine clandestina Twining Glycine  SC Billardiera scandens var. scandens Common Apple-berry  SC Hardenbergia violacea Purple Coral-pea  **Recruitment:**  Continuous  **Organic Litter:**  40 % cover  **Logs:**  20 m/0.1 ha.  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  MH Hypochoeris radicata Cat's Ear high low  MH Centaurium erythraea Common Centaury high low  LNG Holcus lanatus Yorkshire Fog high high  Published by the Victorian Government Department of Sustainability and Environment April 2004  © The State of Victoria Department of Sustainability and Environment 2004  This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:   * the copyright owner is acknowledged; * no official connection is claimed; * the material is made available without charge or at cost; and * the material is not subject to inaccurate, misleading or derogatory treatment.   Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.  For more information contact: Customer Service Centre, 136 186  This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication. |

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

Goldfields bioregion

EVC 47: Valley Grassy Forest

##### Description:

Valley Grassy Forest occurs under moderate rainfall regimes of 700-800 mm per annum on fertile well-drained colluvial or alluvial soils on gently undulating lower slopes and valley floors. The tall, open overstorey to 20 m tall may carry a variety of eucalypts, usually species which prefer more moist or more fertile conditions over a sparse shrub cover. In season, a rich array of herbs, lilies, grasses and sedges dominate the ground layer but at the drier end of the spectrum the ground layer may be sparse and slightly less diverse, but with the moisture-loving species still remaining.

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

##### Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover**  20% | **Character Species**  Eucalyptus melliodora | **Common Name**  Yellow Box |
|  | Eucalyptus macrorhyncha | Red Stringybark |
|  | Eucalyptus polyanthemos ssp. vestita | Red Box |
|  | Eucalyptus rubida | Candlebark |
|  | Eucalyptus goniocalyx s.l | Bundy |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** | **#Spp** | **%Cover** | **LF code** |
| Immature Canopy Tree |  | 5% | IT |
| Understorey Tree or Large Shrub | 1 | 5% | T |
| Medium Shrub | 3 | 5% | MS |
| Small Shrub | 2 | 5% | SS |
| Prostrate Shrub | 1 | 5% | PS |
| Large Herb | 2 | 5% | LH |
| Medium Herb | 11 | 20% | MH |
| Small or Prostrate Herb | 2 | 5% | SH |
| Large Tufted Graminoid | 2 | 5% | LTG |
| Medium to Small Tufted Graminoid | 8 | 30% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 10% | MNG |
| Ground Fern | 1 | 1% | GF |
| Bryophytes/Lichens | na | 20% | BL |

|  |  |  |
| --- | --- | --- |
| **LF Code**  T | **Species typical of at least part of EVC range**  Acacia dealbata | **Common Name**  Silver Wattle |
| MS MS  MS MS  SS SS  PS LH  MH MH  MH SH LTG  MTG MTG  MTG MTG  MNG GF | Cassinia arcuata Ozothamnus obcordatus  Grevillea alpina Daviesia leptophylla  Tetratheca ciliata Dillwynia cinerascens s.l.  Astroloma humifusum Senecio quadridentatus  Gonocarpus tetragynus Oxalis perennans  Drosera peltata Hydrocotyle laxiflora Austrostipa mollis  Lomandra filiformis Dianella revoluta s.l.  Schoenus apogon Austrodanthonia fulva  Microlaena stipoides var. stipoides Cheilanthes sieberi ssp. sieberi | Drooping Cassinia Grey Everlasting  Cat's Claw Grevillea Narrow-leaf Bitter-pea  Pink-bells  Grey Parrot-pea Cranberry Heath  Cotton Fireweed  Common Raspwort Grassland Wood-sorrel Pale Sundew  Stinking Pennywort Supple Spear-grass  Wattle Mat-rush Black-anther Flax-lily  Common Bog-sedge  Copper-awned Wallaby-grass Weeping Grass  Narrow Rock-fern |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 47: Valley Grassy Forest - Goldfields bioregion | |
|  | **Recruitment:**  Continuous  **Organic Litter:**  40 % cover  **Logs:**  20 m/0.1 ha.  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  LH Sonchus oleraceus Common Sow-thistle high low  LH Sonchus asper s.l. Rough Sow-thistle high low  LH Carduus tenuiflorus Winged Thistle high high  MH Hypochoeris radicata Cat's Ear high low  MH Hypochoeris glabra Smooth Cat's-ear high low MH Trifolium arvense var. arvense Hare's-foot Clover 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 Galium murale Small Goosegrass high low MH Cerastium glomeratum s.l. Common Mouse-ear Chickweed high low  MH Galium divaricatum Slender Bedstraw high low  LNG Holcus lanatus Yorkshire Fog high high  MTG Briza maxima Large Quaking-grass high low  MTG Vulpia bromoides Squirrel-tail Fescue high low  MTG Briza minor Lesser Quaking-grass high low  MTG Bromus diandrus Great Brome high low  MNG Aira elegantissima Delicate Hair-grass high low  MNG Bromus madritensis Madrid Brome 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**

Goldfields 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 cover of fire resprouters. Geophytes and annuals can be quite common but the ground cover is normally fairly sparse.

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species** | **DBH(cm)** | **#/ha** |
| Eucalyptus spp.  Allocasuarina luehmannii | 60 cm  40 cm | 15 / ha |

##### Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover**  15% | **Character Species**  Eucalyptus leucoxylon | **Common Name**  Yellow Gum |
|  | Eucalyptus microcarpa | Grey Box |
|  | Eucalyptus polyanthemos | Red Box |
|  | Eucalyptus tricarpa | Red Ironbark |
|  | Eucalyptus goniocalyx s.l. | Bundy |
|  | Allocasuarina luehmannii | Buloke |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** | **#Spp** | **%Cover** | **LF code** |
| Immature Canopy Tree |  | 5% | IT |
| Medium Shrub | 9 | 30% | MS |
| Small Shrub | 7 | 20% | SS |
| Prostrate Shrub | 2 | 1% | PS |
| Large Herb | 2 | 5% | LH |
| Medium Herb | 9 | 15% | MH |
| Large Tufted Graminoid | 1 | 1% | LTG |
| Medium to Small Tufted Graminoid | 7 | 15% | MTG |
| Bryophytes/Lichens | na | 10% | BL |
| Soil Crust | na | 10% | S/C |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 48: Heathy Woodland - Goldfields bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  MS Acacia pycnantha Golden Wattle  MS Acacia genistifolia Spreading Wattle  MS Grevillea alpina Cat's Claw Grevillea  MS Calytrix tetragona Common Fringe-myrtle  SS Astroloma conostephioides Flame Heath  SS Hibbertia exutiacies Spiky Guinea-flower  SS Pultenaea largiflorens Twiggy Bush-pea  SS Hibbertia riparia Erect Guinea-flower  PS Astroloma humifusum Cranberry Heath  PS Acrotriche serrulata Honey-pots  LH Senecio tenuiflorus Slender Fireweed  LH Xerochrysum viscosum Shiny Everlasting  MH Leptorhynchos tenuifolius Wiry Buttons  MH Gonocarpus tetragynus Common Raspwort  MH Cyanicula caerulea Blue Fairy  MH Drosera peltata ssp. peltata Pale Sundew  SH Drosera whittakeri ssp. aberrans Scented Sundew  LTG Austrostipa mollis Supple Spear-grass  MTG Joycea pallida Silvertop Wallaby-grass  MTG Lomandra multiflora ssp. multiflora Many-flowered Mat-rush  MTG Dianella revoluta s.l. Black-anther Flax-lily  MTG Austrodanthonia setacea Bristly Wallaby-grass  SC Cassytha glabella Slender Dodder-laurel  SC Thysanotus patersonii Twining Fringe-lily  SC Drosera macrantha Climbing Sundew  **Recruitment:**  Episodic/Fire. Desirable period between disturbances is 20 years.  **Organic Litter:**  40 % cover  **Logs:**  15 m/0.1 ha.  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  MH Hypochoeris glabra Smooth Cat's-ear high low  MTG Briza maxima Large Quaking-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**

Goldfields 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.  Allocasuarina luehmannii | 70 cm  40 cm | 15 / ha |

##### Tree Canopy Cover:

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** | **#Spp** | **%Cover** | **LF code** |
| Immature Canopy Tree |  | 5% | IT |
| Medium Shrub | 1 | 5% | MS |
| Small Shrub | 1 | 1% | SS |
| Large Herb | 3 | 5% | LH |
| Medium Herb | 10 | 30% | MH |
| Small or Prostrate Herb | 3 | 10% | SH |
| Medium to Small Tufted Graminoid | 18 | 40% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 5% | MNG |
| Bryophytes/Lichens | na | 10% | BL |
| Soil Crust | na | 10% | S/C |

|  |  |  |
| --- | --- | --- |
| **LF Code**  MS | **Species typical of at least part of EVC range**  Acacia acinacea s.l. | **Common Name**  Gold-dust Wattle |
| MS | Acacia pycnantha | Golden Wattle |
| SS | Lissanthe strigosa ssp. subulata | Peach Heath |
| LH | Wahlenbergia luteola | Bronze Bluebell |
| LH | Wahlenbergia communis s.l. | Tufted Bluebell |
| MH | Brachyscome lineariloba | Hard-head Daisy |
| SH | Drosera whittakeri ssp. aberrans | Scented Sundew |
| SH | Ptilotus spathulatus f. spathulatus | Pussy Tails |
| SH | Drosera glanduligera | Scarlet Sundew |
| SH | Siloxerus multiflorus | Small Wrinklewort |
| MTG | Austrostipa scabra ssp. falcata | Rough Spear-grass |
| MTG | Elymus scaber var. scaber | Common Wheat-grass |
| MTG | Lomandra filiformis | Wattle Mat-rush |
| MTG | Austrodanthonia setacea | Bristly Wallaby-grass |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 55: Plains Grassy Woodland - Goldfields bioregion | |
|  | **Recruitment:**  Continuous  **Organic Litter:**  10 % cover  **Logs:**  10 m/0.1 ha.  **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 Galium divaricatum Slender Bedstraw high low  MH Hypochoeris glabra Smooth Cat's-ear high low MH Trifolium campestre var. campestre Hop Clover high low  MH Cicendia quadrangularis Square Cicendia high low  MH Anagallis arvensis Pimpernel high low  LNG Holcus lanatus Yorkshire Fog high high  LNG Avena fatua Wild Oat 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 Bromus diandrus Great Brome high low MTG Bromus hordeaceus ssp. hordeaceus Soft Brome high low  MTG Vulpia bromoides Squirrel-tail Fescue 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 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**

Goldfields bioregion

EVC 56: Floodplain Riparian Woodland

##### Description:

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

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

##### Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 20% | 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 | 5% | T |
| Medium Shrub | 2 | 5% | MS |
| Small Shrub | 1 | 1% | SS |
| Medium Herb | 4 | 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 | 40% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 10% | MNG |
| Bryophytes/Lichens | na | 10% | BL |
| **Total understorey projective foliage cover** |  | **90%** |  |

|  |  |  |
| --- | --- | --- |
| **LF Code**  T | **Species typical of at least part of EVC range**  Acacia dealbata | **Common Name**  Silver Wattle |
| MS | Hymenanthera dentata s.l. | Tree Violet |
| MH | Sida corrugata | Variable Sida |
| MH | Oxalis perennans | Grassland Wood-sorrel |
| MH | Persicaria decipiens | Slender Knotweed |
| SH | Chamaesyce drummondii | Flat Spurge |
| SH | Azolla filiculoides | Pacific Azolla |
| LTG | Carex appressa | Tall Sedge |
| LNG | Phragmites australis | Common Reed |
| LNG | Eleocharis sphacelata | Tall Spike-sedge |
| MTG | Poa labillardierei | Common Tussock-grass |
| MTG | Chloris truncata | Windmill Grass |
| MTG | Themeda triandra | Kangaroo Grass |
| MTG | Aristida behriana | Brush Wire-grass |
| MNG | Pseudoraphis spinescens | Spiny Mud-grass |
| MNG | Eleocharis acuta | Common Spike-sedge |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 56: Floodplain Riparian Woodland - Goldfields bioregion | |
|  | **Recruitment:**  Episodic/Flood - Desirable period between disturbances is 10 years.  **Organic Litter:**  40 % cover  **Logs:**  30 m/0.1 ha.  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  LH Cirsium vulgare Spear Thistle high high  SH Trifolium glomeratum Cluster Clover 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**

Goldfields bioregion

EVC 61: Box Ironbark Forest

##### Description:

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

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

##### Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 30% | Eucalyptus microcarpa  Eucalyptus tricarpa Eucalyptus polyanthemos  Eucalyptus leucoxylon | Grey Box  Red Ironbark Red Box  Yellow Gum |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** | **#Spp** | **%Cover** | **LF code** |
| Immature Canopy Tree |  | 5% | IT |
| Medium Shrub | 7 | 25% | MS |
| Small Shrub | 4 | 5% | SS |
| Prostrate Shrub | 2 | 1% | PS |
| Medium Herb | 9 | 20% | MH |
| Large Tufted Graminoid | 1 | 1% | LTG |
| Medium to Small Tufted Graminoid | 8 | 15% | MTG |
| Bryophytes/Lichens | na | 10% | BL |
| Soil Crust | na | 20% | S/C |
| **Total understorey projective foliage cover** |  | **85%** |  |

|  |  |  |
| --- | --- | --- |
| **LF Code**  MS | **Species typical of at least part of EVC range**  Acacia pycnantha | **Common Name**  Golden Wattle |
| MS | Cassinia arcuata | Drooping Cassinia |
| MS | Acacia genistifolia | Spreading Wattle |
| MS | Acacia acinacea s.l. | Gold-dust Wattle |
| SS | Hibbertia exutiacies | Spiky Guinea-flower |
| SS | Pultenaea largiflorens | Twiggy Bush-pea |
| PS | Astroloma humifusum | Cranberry Heath |
| MH | Senecio tenuiflorus | Slender Fireweed |
| MH | Xerochrysum viscosum | Shiny Everlasting |
| MH | Gonocarpus tetragynus | Common Raspwort |
| MH | Veronica plebeia | Trailing Speedwell |
| LTG | Austrostipa mollis | Supple Spear-grass |
| MTG | Joycea pallida | Silvertop Wallaby-grass |
| MTG | Dianella revoluta s.l. | Black-anther Flax-lily |
| MTG | Lomandra filiformis | Wattle Mat-rush |
| MTG | Austrodanthonia setacea | Bristly Wallaby-grass |
| MTG | Poa sieberiana | Grey Tussock-grass |
| SC | Thysanotus patersonii | Twining Fringe-lily |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 61: Box Ironbark Forest - Goldfields 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 glabra Smooth Cat's-ear high low  MH Hypochoeris radicata Cat's Ear high low  MTG Briza maxima Large Quaking-grass high low  MTG Vulpia bromoides Squirrel-tail Fescue high low  MNG Aira elegantissima Delicate Hair-grass high low  MH Petrorhagia velutina Hairy Pink 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**

Goldfields bioregion

EVC 65: Sedge-rich Woodland

##### Description:

Occurs in shallow depressions in flatter, poorly drained areas. The vegetation is an open woodland to 15 m tall, with shrubs and understorey trees uncommon, and sedges predominating in the ground layer. Herbs typical of inundated environments are present, but also grass, herb and geophyte species may also be common.

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

##### Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 10% | Eucalyptus leucoxylon  Eucalyptus melliodora Allocasuarina luehmannii | Yellow Gum  Yellow Box Buloke |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form**  Immature Canopy Tree | **#Spp** | **%Cover**  5% | **LF code**  IT |
| Medium Shrub | 2 | 5% | MS |
| Small Shrub | 2 | 1% | SS |
| Large Herb | 1 | 5% | LH |
| Medium Herb | 10 | 20% | MH |
| Small or Prostrate Herb | 2 | 5% | SH |
| Large Non-tufted Graminoid | 1 | 1% | LNG |
| Medium to Small Tufted Graminoid | 13 | 30% | MTG |
| Medium to Tiny Non-tufted Graminoid | 3 | 15% | MNG |
| Bryophytes/Lichens | na | 10% | BL |
| Soil Crust | na | 10% | S/C |

|  |  |  |
| --- | --- | --- |
| **LF Code**  MS | **Species typical of at least part of EVC range**  Hakea rugosa | **Common Name**  Dwarf Hakea |
| SS | Eutaxia microphylla | Common Eutaxia |
| PS | Astroloma humifusum | Cranberry Heath |
| PS | Acrotriche serrulata | Honey-pots |
| LH | Senecio tenuiflorus | Narrow-leaf Groundsel |
| MH | Utricularia dichotoma s.l. | Fairies' Aprons |
| MH | Drosera peltata ssp. peltata | Pale Sundew |
| MH | Lagenophora huegelii | Coarse Lagenophera |
| MH | Leptorhynchos squamatus | Scaly Buttons |
| SH | Solenogyne dominii | Smooth Solenogyne |
| SH | Myriocephalus rhizocephalus | Woolly-heads |
| SH | Hydrocotyle laxiflora | Stinking Pennywort |
| MTG | Lepidosperma viscidum | Sticky Sword-sedge |
| MTG | Juncus holoschoenus | Joint-leaf Rush |
| 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 |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 65: Sedge-rich Woodland - Goldfields bioregion | |
|  | **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**

Goldfields bioregion

EVC 67: Alluvial Terraces Herb-rich Woodland

##### Description:

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

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species** | **DBH(cm)** | **#/ha** |
| Eucalyptus spp.  Allocasuarina spp. | 70 cm  50 cm | 8 / ha |

##### Tree Canopy Cover:

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

|  |  |  |  |
| --- | --- | --- | --- |
| **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 | 3 | 5% | SS |
| Prostrate Shrub | 1 | 1% | PS |
| Large Herb | 3 | 5% | LH |
| Medium Herb | 15 | 30% | MH |
| Small or Prostrate Herb | 5 | 10% | SH |
| Large Tufted Graminoid | 1 | 1% | LTG |
| Medium to Small Tufted Graminoid | 12 | 30% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 5% | MNG |
| Ground Fern | 1 | 1% | GF |
| Bryophytes/Lichens | na | 10% | BL |
| Soil Crust | na | 10% | S/C |

**Recruitment:**

Continuous

##### Organic Litter:

10 % cover

##### Logs:

15 m/0.1 ha.

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 67: Alluvial Terraces Herb-rich Woodland - Goldfields 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  MS Acacia paradoxa Hedge Wattle  MS Acacia genistifolia Spreading Wattle  SS Lissanthe strigosa ssp. subulata Peach Heath  SS Pimelea humilis Common Rice-flower  SS Dillwynia cinerascens s.l. Grey Parrot-pea  PS Astroloma humifusum Cranberry Heath  PS Acrotriche serrulata Honey-pots  LH Senecio quadridentatus Cotton Fireweed  LH Senecio tenuiflorus Slender Fireweed  MH Cynoglossum suaveolens Sweet Hound’s-tongue  MH Oxalis perennans Grassland Wood-sorrel  MH Daucus glochidiatus Australian Carrot  MH Cymbonotus preissianus Austral Bear’s-ears  SH Hydrocotyle laxiflora Stinking Pennywort  SH Solenogyne dominii Smooth Solenogyne  SH Drosera whittakeri ssp. aberrans Scented Sundew  SH Cymbonotus preissianus Austral Bear's-ear  LTG Austrostipa mollis Supple Spear-grass  MTG Lomandra filiformis Wattle Mat-rush  MTG Elymus scaber var. scaber Common Wheat-grass  MTG Dianella revoluta s.l. Black-anther Flax-lily  MTG Austrostipa scabra Rough Spear-grass  MNG Microlaena stipoides var. stipoides Weeping Grass  TTG Centrolepis strigosa ssp. strigosa Hairy Centrolepis  TTG Centrolepis aristata Pointed Centrolepis  GF Cheilanthes austrotenuifolia Green Rock-fern  SC Thysanotus patersonii Twining Fringe-lily  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  LH Sonchus oleraceus Common Sow-thistle high low  LH Sonchus asper s.l. Rough Sow-thistle high low  MH Hypochoeris radicata Cat's Ear high low  MH Hypochoeris glabra Smooth Cat's-ear high low  MH Arctotheca calendula Cape Weed high low  MH Anagallis arvensis Pimpernel high low  MH Trifolium campestre var. campestre Hop Clover high low MH Cicendia quadrangularis Square Cicendia high low  MH Cerastium glomeratum s.l. Common Mouse-ear Chickweed high low MH Galium murale Small Goosegrass high low  MH Petrorhagia velutina Velvety Pink high low MH Centaurium erythraea Common Centaury high low  MH Galium divaricatum Slender Bedstraw high low  LNG Holcus lanatus Yorkshire Fog high high  MTG Briza minor Lesser Quaking-grass high low  MTG Briza maxima Large Quaking-grass high low  MNG Aira elegantissima Delicate Hair-grass high low  MNG Juncus capitatus Capitate Rush high low  MNG Vulpia myuros Rat's-tail Fescue high low  MNG Vulpia ciliata Fringed Fescue high low  TTG Cyperus tenellus Tiny Flat-sedge high low  Published by the Victorian Government Department of Sustainability and Environment May 2004  © The State of Victoria Department of Sustainability and Environment 2004  This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:   * the copyright owner is acknowledged; * no official connection is claimed; * the material is made available without charge or at cost; and * the material is not subject to inaccurate, misleading or derogatory treatment.   Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.  For more information contact: Customer Service Centre, 136 186  This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication. |

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

Goldfields 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.

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| **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 Eucalyptus melliodora | River Red-gum  Grey Box Yellow Box |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** | **#Spp** | **%Cover** | **LF code** |
| Immature Canopy Tree |  | 5% | IT |
| Medium Shrub | 4 | 10% | MS |
| Small Shrub | 3 | 5% | SS |
| Large Herb | 2 | 5% | LH |
| Medium Herb | 9 | 15% | MH |
| Small Herb | 3 | 5% | SH |
| Large Tufted Graminoid | 2 | 5% | LTG |
| Medium to Small Tufted Graminoid | 16 | 40% | MTG |
| Medium to Tiny Non-tufted Graminoid | 3 | 5% | MNG |
| Bryophytes/Lichens | na | 10% | BL |

|  |  |  |
| --- | --- | --- |
| **LF Code**  MS | **Species typical of at least part of EVC range**  Acacia pycnantha | **Common Name**  Golden Wattle |
| MS | Daviesia ulicifolia | Gorse Bitter-pea |
| MS | Cassinia arcuata | Drooping Cassinia |
| SS | Pimelea humilis | Common Rice-flower |
| SS | Pultenaea largiflorens | Twiggy Bush-pea |
| PS | Astroloma humifusum | Cranberry Heath |
| LH | Senecio tenuiflorus | Slender Fireweed |
| MH | Xerochrysum viscosum | Shiny Everlasting |
| MH | Gonocarpus tetragynus | Common Raspwort |
| MH | Hypericum gramineum | Small St John's Wort |
| SH | Hydrocotyle laxiflora | Stinking Pennywort |
| LTG | Austrostipa rudis | Veined Spear-grass |
| LTG | Carex tereticaulis | Rush Sedge |
| MTG | Poa labillardierei | Common Tussock-grass |
| MTG | Elymus scaber var. scaber | Common Wheat-grass |
| MTG | Austrodanthonia setacea | Bristly Wallaby-grass |
| MTG | Juncus remotiflorus | Diffuse Rush |
| MTG | Carex appressa | Tall Sedge |
| MNG | Microlaena stipoides var. stipoides | Weeping Grass |
| SC | Thysanotus patersonii | Twining Fringe-lily |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 68: Creekline Grassy Woodland - Goldfields bioregion | |
|  | **Recruitment:**  Continuous  **Organic Litter:**  40 % cover  **Logs:**  30 m/0.1 ha.  **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 Anagallis arvensis Pimpernel high low  MH Hypochoeris glabra Smooth Cat's-ear high low  MH Galium murale Small Goosegrass high low  MH Oxalis pes-caprae Soursob high high  LTG Juncus acutus Spiny Rush high high  LTG Phalaris aquatica Toowoomba Canary-grass high high  MTG Briza maxima Large Quaking-grass high low  MTG Briza minor Lesser Quaking-grass high low  MTG Romulea rosea Onion Grass high low  MTG Vulpia bromoides Squirrel-tail Fescue high low MTG Bromus hordeaceus ssp. hordeaceus Soft Brome high low  MNG Aira elegantissima Delicate Hair-grass high low  MNG Vulpia muralis Wall Fescue high low  MNG Bromus madritensis Madrid Brome 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**

Goldfields bioregion

EVC 69: Metamorphic Slopes Shrubby Woodland

##### Description:

Occurs on rocky slopes of contact metamorphosed ridges adjacent to granitic plutons. Slopes have stony soils and fractured bedrock resulting in high permeability to water and low effective rainfall. A very low open woodland to 8 m tall with a dense layer of medium to large shrubs. Ground layer can be sparse with scattered grasses, forbs and low shrubs. The presence of geophytes in the ground stratum indicates seasonally moist soil conditions.

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

##### Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 15% | Eucalyptus microcarpa  Eucalyptus polyanthemos Eucalyptus leucoxylon | Grey Box  Red Box Yellow Gum |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form**  Understorey Tree or Large Shrub | **#Spp**  1 | **%Cover**  5% | **LF code**  T |
| Medium Shrub | 7 | 25% | MS |
| Small Shrub | 3 | 5% | SS |
| Prostrate Shrub | 1 | 1% | PS |
| Large Herb | 2 | 5% | LH |
| Medium Herb | 11 | 20% | MH |
| Small or Prostrate Herb\* | 2 | 1% | SH |
| Large Tufted Graminoid | 1 | 5% | LTG |
| Medium to Small Tufted Graminoid | 7 | 15% | MTG |
| Ground Fern | 1 | 5% | GF |
| Bryophytes/Lichens | na | 10% | BL |
| Soil Crust | na | 20% | S/C |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 69: Metamorphic Slopes Shrubby Woodland - Goldfields bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  T Allocasuarina verticillata Drooping Sheoke  MS Acacia euthycarpa Wallowa  MS Ozothamnus obcordatus Grey Everlasting  MS Acacia pycnantha Golden Wattle  MS Cassinia arcuata Drooping Cassinia  SS Astroloma conostephioides Flame Heath  SS Pultenaea prostrata Silky Bush-pea  SS Hibbertia exutiacies Spiky Guinea-flower  SS Pimelea humilis Common Rice-flower  PS Astroloma humifusum Cranberry Heath  LH Xerochrysum viscosum Shiny Everlasting  LH Senecio tenuiflorus Slender Fireweed  MH Gonocarpus elatus Tall Raspwort  MH Stuartina muelleri Spoon Cudweed  MH Rhodanthe laevis Smooth Sunray  SH Millotia muelleri Common Bow-flower  SH Hydrocotyle laxiflora Stinking Pennywort  SH Siloxerus multiflorus Small Wrinklewort  SH Calandrinia calyptrata Pink Purslane  LTG Austrostipa mollis Supple Spear-grass  MTG Lomandra filiformis Wattle Mat-rush  MTG Austrodanthonia setacea Bristly Wallaby-grass  MTG Austrostipa scabra Rough Spear-grass  MTG Dianella revoluta s.l. Black-anther Flax-lily  GF Cheilanthes austrotenuifolia Green Rock-fern  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 glabra Smooth Cat's-ear high low MH Parentucellia latifolia Red Bartsia high low MTG Briza maxima Large Quaking-grass high low  MTG Briza minor Lesser Quaking-grass high low  MTG Vulpia bromoides Squirrel-tail Fescue high low  MNG Aira elegantissima Delicate Hair-grass high low  MNG Vulpia myuros Rat's-tail Fescue high low  Published by the Victorian Government Department of Sustainability and Environment April 2004  © The State of Victoria Department of Sustainability and Environment 2004  This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:   * the copyright owner is acknowledged; * no official connection is claimed; * the material is made available without charge or at cost; and * the material is not subject to inaccurate, misleading or derogatory treatment.   Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.  For more information contact: Customer Service Centre, 136 186  This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication. |

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

Goldfields bioregion

EVC 70: Hillcrest Herb-rich Woodland

##### Description:

Restricted to low rainfall areas and occurs on broad, flat hilltops and ridgelines and upper slopes of undulating rises and rolling hills at low elevations. The flatness of the ridgetops allows for the formation of deeper soils derived from Ordovician sediments and together with clayey sub-soils found in pockets in fractured sedimentary rock, results in better growing conditions than on the surrounding slopes. The overstorey is sparse and consists of low spreading eucalypts to 10 m tall. The medium shrub layer is usually absent while the ground layer has a diverse array of grasses and herbs partly due to protection offered by the easterly aspect.

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

##### Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 15% | Eucalyptus microcarpa  Eucalyptus melliodora | Grey Box  Yellow Box |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** | **#Spp** | **%Cover** | **LF code** |
| Immature Canopy Tree |  | 5% | IT |
| Understorey Tree or Large Shrub | 2 | 10% | T |
| Medium Shrub | 2 | 5% | MS |
| Small Shrub | 2 | 1% | SS |
| Large Herb | 4 | 10% | LH |
| Medium Herb | 14 | 20% | MH |
| Small or Prostrate Herb | 2 | 5% | SH |
| Large Tufted Graminoid | 1 | 1% | LTG |
| Medium to Small Tufted Graminoid | 12 | 30% | MTG |
| Medium to Tiny Non-tufted Graminoid | 3 | 5% | MNG |
| Ground Fern | 1 | 1% | GF |
| Bryophytes/Lichens | na | 10% | BL |
| Soil Crust | na | 10% | S/C |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 70: Hillcrest Herb-rich Woodland - Goldfields bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  T Acacia implexa Lightwood  T Allocasuarina verticillata Drooping Sheoak  MS Acacia pycnantha Golden Wattle  MS Cassinia arcuata Drooping Cassinia  SS Pimelea humilis Common Rice-flower  SS Astroloma conostephioides Flame Heath  PS Astroloma humifusum Cranberry Heath  LH Senecio quadridentatus Cotton Fireweed  LH Wahlenbergia stricta Tall Bluebell  LH Wahlenbergia luteola Bronze Bluebell  MH Xerochrysum viscosum Shiny Everlasting  MH Stackhousia monogyna Creamy Stackhousia  MH Gonocarpus elatus Tall Raspwort  MH Pelargonium rodneyanum Magenta Stork's-bill  SH Hydrocotyle laxiflora Stinking Pennywort  SH Kennedia prostrata Running Postman  SH Drosera whittakeri ssp. aberrans Scented Sundew  LTG Austrostipa mollis Supple Spear-grass  MTG Austrostipa scabra Rough Spear-grass  MTG Lomandra filiformis Wattle Mat-rush  MTG Themeda triandra Kangaroo Grass  GF Cheilanthes austrotenuifolia Green Rock-fern  GF Cheilanthes sieberi ssp. sieberi Narrow Rock-fern  EP Amyema miquelii Box Mistletoe  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**  LH Carduus tenuiflorus Winged Thistle high low  MH Hypochoeris glabra Smooth Cat's-ear high low  MH Anagallis arvensis Pimpernel high low MH Trifolium arvense var. arvense Hare's-foot Clover high low  MH Trifolium campestre var. campestre Hop Clover high low  MH Petrorhagia velutina Velvety Pink high low  MH Galium murale Small Goosegrass high low  MH Parentucellia latifolia Red Bartsia high low  MH Arctotheca calendula Cape Weed high low  MH Hypochoeris radicata Cat's Ear high low  MTG Briza maxima Large Quaking-grass high low  MTG Briza minor Lesser Quaking-grass high low  MTG Vulpia bromoides Squirrel-tail Fescue high low MTG Bromus hordeaceus ssp. hordeaceus Soft Brome high low  MNG Avena barbata Bearded Oat high low  MNG Aira elegantissima Delicate Hair-grass high low  MNG Bromus madritensis Madrid Brome high low  MNG Vulpia myuros Rat's-tail Fescue high low  Published by the Victorian Government Department of Sustainability and Environment April 2004  © The State of Victoria Department of Sustainability and Environment 2004  This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:   * the copyright owner is acknowledged; * no official connection is claimed; * the material is made available without charge or at cost; and * the material is not subject to inaccurate, misleading or derogatory treatment.   Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.  For more information contact: Customer Service Centre, 136 186  This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication. |

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

Goldfields 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**  15% | **Character Species**  Eucalyptus goniocalyx s.s. | **Common Name**  Bundy |
|  | Eucalyptus blakelyi | Blakely's Red-gum |
|  | Eucalyptus macrorhyncha | Red Stringybark |
|  | Eucalyptus melliodora | Yellow Box |
|  | Eucalyptus camaldulensis | River Red Gum |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** | **#Spp** | **%Cover** | **LF code** |
| Immature Canopy Tree |  | 5% | IT |
| Understorey Tree or Large Shrub | 1 | 5% | T |
| Medium Shrub | 5 | 15% | MS |
| Large Herb | 4 | 5% | LH |
| Medium Herb | 15 | 20% | MH |
| Small or Prostrate Herb | 3 | 5% | SH |
| Large Tufted Graminoid | 2 | 1% | LTG |
| Medium to Small Tufted Graminoid | 11 | 30% | MTG |
| Medium to Tiny Non-tufted Graminoid | 5 | 10% | MNG |
| Ground Fern | 2 | 10% | GF |
| Bryophytes/Lichens | na | 10% | BL |
| Soil Crust | na | 10% | S/C |

|  |  |  |  |
| --- | --- | --- | --- |
| **LF Code**  MS |  | **Species typical of at least part of EVC range**  Dodonaea viscosa | **Common Name**  Sticky Hop-bush |
| MS | r | Acacia deanei ssp. paucijuga | Deane's Wattle |
| MS |  | Acacia euthycarpa | Wallowa |
| LH |  | Senecio quadridentatus | Cotton Fireweed |
| MH |  | Gonocarpus elatus | Tall Raspwort |
| SH |  | Hydrocotyle laxiflora | Stinking Pennywort |
| SH |  | Phyllangium divergens | Wiry Mitrewort |
| SH |  | Crassula sieberiana | Sieber Crassula |
| LTG |  | Austrostipa mollis | Supple Spear-grass |
| MTG |  | Austrostipa scabra ssp. falcata | Rough Spear-grass |
| MTG |  | Tricoryne elatior | Yellow Rush-lily |
| MNG |  | Microlaena stipoides var. stipoides | Weeping Grass |
| TTG |  | Centrolepis aristata | Pointed Centrolepis |
| GF |  | Cheilanthes austrotenuifolia | Green Rock-fern |
| GF |  | Cheilanthes sieberi ssp. sieberi | Narrow Rock-fern |
| EP |  | Amyema quandang var. quandang | Grey Mistletoe |
| EP |  | Amyema miquelii | Box Mistletoe |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 71: Hills Herb-rich Woodland - Goldfields bioregion | |
|  | **Recruitment:**  Continuous  **Organic Litter:**  20 % 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  LH Carduus tenuiflorus Winged Thistle high low  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 Petrorhagia velutina Velvety Pink high low  MH Anagallis arvensis Pimpernel high low MH Trifolium arvense var. arvense Hare's-foot Clover high low  MH Cerastium glomeratum s.l. Common Mouse-ear Chickweed high low  MH Parentucellia latifolia Red Bartsia high low  MH Moenchia erecta Erect Chickweed high low  MH Galium murale Small Goosegrass high low  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 Bromus hordeaceus ssp. hordeaceus Soft Brome high low  MTG Romulea rosea Onion Grass high low  MTG Lolium rigidum Wimmera Rye-grass high low  MTG Bromus diandrus Great Brome high low  MNG Avena barbata Bearded Oat high low  MNG Aira cupaniana Quicksilver Grass high low  MNG Bromus rubens Red Brome high low  MNG Bromus madritensis Madrid Brome 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**

Goldfields bioregion

EVC 72: Granitic Hills Woodland

##### Description:

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

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species**  Eucalyptus spp. | **DBH(cm)**  60 cm | **#/ha**  15 / ha |

##### Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 10% | Eucalyptus blakelyi | Blakely’s Red Gum |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form**  Immature Canopy Tree | **#Spp** | **%Cover**  5% | **LF code**  IT |
| Understorey Tree or Large Shrub | 1 | 1% | T |
| Large Herb | 3 | 5% | LH |
| Medium Herb | 11 | 15% | MH |
| Small or Prostrate Herb | 2 | 1% | SH |
| Medium to Small Tufted Graminoid | 6 | 10% | MTG |
| Medium to Tiny Non-tufted Graminoid | 4 | 10% | MNG |
| Tiny Tufted Graminoid\* | 2 | 1% | TTG |
| Ground Fern | 1 | 10% | GF |
| Bryophytes/Lichens | na | 10% | BL |
| Soil Crust | na | 10% | S/C |

* Largely seasonal life form

##### Total understorey projective foliage cover 75%

|  |  |  |  |
| --- | --- | --- | --- |
| **LF Code**  T |  | **Species typical of at least part of EVC range**  Acacia mearnsii | **Common Name**  Black Wattle |
| LH |  | Senecio quadridentatus | Cotton Fireweed |
| LH |  | Ajuga australis | Austral Bugle |
| MH |  | Calandrinia eremaea | Small Purslane |
| MTG |  | Carex breviculmis | Common Grass-sedge |
| MTG | k | Austrodanthonia bipartita s.s. | Leafy Wallaby-grass |
| MNG |  | Triglochin nanum | Dwarf Arrowgrass |
| TTG |  | Isolepis marginata | Little Club-sedge |
| TTG |  | Centrolepis strigosa ssp. strigosa | Hairy Centrolepis |
| GF |  | Cheilanthes austrotenuifolia | Green Rock-fern |

**Recruitment:**

Continuous

##### Organic Litter:

20 % cover

##### Logs:

15 m/0.1 ha.

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 72: Granitic Hills Woodland - Goldfields bioregion | |
|  | **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  LH Hypericum perforatum St John's Wort high high  LH Sonchus oleraceus Common Sow-thistle high low  LH Silybum marianum Variegated Thistle high high  MH Cicendia quadrangularis Square Cicendia high low  MH Stellaria media Chickweed high low MH Erophila verna ssp. verna Whitlow Grass high low  MH Moenchia erecta Erect Chickweed high low  MH Hypochoeris glabra Smooth Cat's-ear high low  MH Galium murale Small Goosegrass high low MH Cerastium glomeratum s.l. Common Mouse-ear Chickweed high low  MH Anagallis arvensis Pimpernel high low  MH Parentucellia latifolia Red Bartsia high low  MH Trifolium dubium Suckling Clover high low  MH Veronica arvensis Wall Speedwell high low MH Trifolium angustifolium var. angustifolium Narrow-leaf Clover high low  MH Spergula pentandra Five-stamen Corn-spurrey high low  MH Sherardia arvensis Field Madder high low  MH Erodium moschatum Musky Heron's-bill high low  MH Arctotheca calendula Cape Weed high low  MTG Vulpia bromoides Squirrel-tail Fescue high low  MTG Poa bulbosa Bulbous Meadow-grass high low  MTG Briza minor Lesser Quaking-grass high low  MTG Briza maxima Large Quaking-grass high low  MTG Romulea minutiflora Small-flower Onion-grass high low  MTG Poa annua Annual Meadow-grass high low  MNG Bromus rubens Red Brome high low  MNG Juncus capitatus Capitate Rush 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**

Goldfields bioregion

EVC 83: Swampy Riparian Woodland

##### Description:

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

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

##### Tree Canopy Cover:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **%cover**  20% | **Character Species**  Eucalyptus ovata |  | **Common Name**  Swamp Gum | |
| **Understorey:** | |  |  |  |
| **Life form** | | **#Spp** | **%Cover** | **LF code** |
| Immature Canopy Tree | |  | 5% | IT |
| Understorey Tree or Large Shrub | | 2 | 10% | T |
| Medium Shrub | | 2 | 5% | MS |
| Large Herb | | 5 | 10% | LH |
| Medium Herb | | 9 | 20% | MH |
| Small or Prostrate Herb | | 4 | 10% | SH |
| Large Tufted Graminoid | | 4 | 10% | LTG |
| Large Non-tufted Graminoid | | 1 | 5% | LNG |
| Medium to Small Tufted Graminoid | | 9 | 25% | MTG |
| Medium to Tiny Non-tufted Graminoid | | 2 | 5% | MNG |
| Ground Fern | | 1 | 1% | GF |
| Scrambler or Climber | | 2 | 5% | SC |
| Bryophytes/Lichens | | na | 20% | BL |
| **LF Code** | **Species typical of at least part of EVC range** | | **Common Name** | |
| T  T MS MS MS MS LH LH LH MH MH MH MH SH SH SH SH LTG LTG LTG MTG MTG MTG MTG MNG MNG GF SC | Acacia melanoxylon  Acacia mearnsii Olearia glandulosa  Acacia verticillata ssp. verticillata  Leptospermum lanigerum Ozothamnus rosmarinifolius  Senecio minimus Persicaria praetermissa  Epilobium billardierianum Acaena novae-zelandiae  Geranium potentilloides Oxalis exilis  Euchiton involucratus s.l.  Leptinella reptans s.l.  Hydrocotyle sibthorpioides Hydrocotyle hirta  Dichondra repens Juncus procerus Cyperus lucidus  Juncus pallidus Juncus planifolius  Juncus pauciflorus Poa labillardierei  Triglochin procerum s.l.  Hemarthria uncinata var. uncinata Triglochin striatum  Pteridium esculentum  Calystegia sepium | | Blackwood  Black Wattle Swamp Daisy-bush Prickly Moses Woolly Tea-tree  Rosemary Everlasting Shrubby Fireweed  Spotted Knotweed  Variable Willow-herb Bidgee-widgee Cinquefoil Cranesbill Shady Wood-sorrel Star Cudweed Creeping Cotula Shining Pennywort Hairy Pennywort Kidneyweed  Tall Rush  Leafy Flat-sedge Pale Rush  Broad-leaf Rush  Loose-flower Rush Common Tussock-grass Water Ribbons  Mat Grass  Streaked Arrowgrass Austral Bracken Large Bindweed | |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 83: Swampy Riparian Woodland - Goldfields bioregion | |
|  | **Recruitment:**  Continuous  **Organic Litter:**  20 % cover  **Logs:**  20 m/0.1 ha.  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  MS Rubus sp. aff. armeniacus Blackberry high high  LH Sonchus asper s.l. Rough Sow-thistle high low  LH Cirsium vulgare Spear Thistle high high  LH Plantago lanceolata Ribwort high low  LH Parentucellia viscosa Yellow Bartsia high low  MH Lotus corniculatus Bird's-foot Trefoil high low  MH Hypochoeris radicata Cat's Ear high low  MH Acetosella vulgaris Sheep Sorrel high low MH Leontodon taraxacoides ssp. taraxacoides Hairy Hawkbit high low  MH Anagallis arvensis Pimpernel high low  SH Trifolium repens var. repens White Clover high low LNG Holcus lanatus Yorkshire Fog high high  MTG Anthoxanthum odoratum Sweet Vernal-grass high high  MTG Lolium perenne Perennial Rye-grass high high  MTG Juncus articulatus Jointed Rush high high MTG Bromus hordeaceus ssp. hordeaceus Soft Brome high low  MNG Vulpia spp. 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**

Goldfields bioregion

EVC 93: Sandstone Ridge Shrubland (syn. Broombush Mallee)

##### Description:

Low open mallee to 3 m tall typically with a tall shrubby understorey, or shrubland with scattered emergent mallees. A good field character for this EVC is the dominance or co-dominance of the tall shrub Melaleuca uncinata in shrubland or as an understorey shrub in Mallee vegetation. Confined to the crests of outcropping Parilla sandstone ridges and also where these ridges are at least partially obscured by a shallow mantle of Lowan sand.

+ mallee only component (ignore when assessing shrubland areas and standardise final score as appropriate)

##### Tree Canopy Cover+:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 30% | Eucalyptus viridis  Eucalyptus polybractea Eucalyptus behriana | Green Mallee  Blue Mallee Bull Mallee |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** Medium Shrub | **#Spp**  9 | **%Cover**  30% | **LF code**  MS |
| Small Shrub | 5 | 10% | SS |
| Prostrate Shrub | 1 | 1% | PS |
| Large Herb | 1 | 1% | LH |
| Medium Herb | 6 | 15% | MH |
| Medium to Small Tufted Graminoid | 3 | 5% | MTG |
| Bryophytes/Lichens | na | 20% | BL |
| Soil Crust | na | 20% | S/C |

|  |  |  |
| --- | --- | --- |
| **LF Code**  MS | **Species typical of at least part of EVC range**  Melaleuca uncinata | **Common Name**  Broombush |
| MS | Ozothamnus obcordatus | Grey Everlasting |
| MS | Acacia acinacea s.l. | Gold-dust Wattle |
| MS | Cassinia arcuata | Drooping Cassinia |
| SS | Astroloma conostephioides | Flame Heath |
| SS | Pultenaea largiflorens | Twiggy Bush-pea |
| SS | Pultenaea prostrata | Silky Bush-pea |
| SS | Hibbertia exutiacies | Spiky Guinea-flower |
| PS | Astroloma humifusum | Cranberry Heath |
| LH | Senecio tenuiflorus | Slender Fireweed |
| MH | Xerochrysum viscosum | Shiny Everlasting |
| MH | Glischrocaryon behrii | Golden Pennants |
| MH | Rhodanthe laevis | Smooth Sunray |
| MH | Gonocarpus tetragynus | Common Raspwort |
| MTG | Dianella revoluta s.l. | Black-anther Flax-lily |
| MTG | Austrodanthonia setacea | Bristly Wallaby-grass |

**Recruitment:**

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

##### Organic Litter:

20 % cover

##### Logs+:

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Weediness:** |  | | |
| **LF Code**  MH | **Typical Weed Species**  Hypochoeris glabra | **Common Name**  Smooth Cat's-ear | **Invasive Impact**  high low |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 93: Sandstone Ridge Shrubland (syn. Broombush Mallee) - Goldfields Bioregion | |
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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Goldfields bioregion

EVC 97: Semi-arid Woodland

###### Description:

Non-eucalypt woodland or open forest to 12 m tall, of low rainfall areas. Occurs in a range of somewhat elevated positions not subject to flooding or inundation. The surface soils are typically light textured loamy sands or sandy loams.

|  |  |  |
| --- | --- | --- |
| Large trees: Species | DBH(cm) | #/ha |
| Casuarina spp. | 40 cm | 20/ha |
| Allocasuarina spp. | 40 cm |  |
| Callitris spp. | 40 cm |  |
| Myoporum platycarpum | 35 cm |  |

###### Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| % cover | Character Species | Common Name |
| 20% | Allocasuarina luehmannii  Callitris gracilis ssp. murrayensis Myoporum platycarpum | Buloke  Slender Cypress-pine Sugarwood |

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

\* Largely seasonal life form

###### Total understorey projective foliage cover 75%

|  |  |  |
| --- | --- | --- |
| LF Code | Species typical of at least part of EVC range | Common Name |
| MS | Alectryon oleifolius ssp. canescens | Cattle Bush |
| MS | Acacia oswaldii | Umbrella Wattle |
| MS | Hakea tephrosperma | Hooked Needlewood |
| MS | Hakea leucoptera ssp. leucoptera | Silver Needlewood |
| SS | Enchylaena tomentosa var. tomentosa | Ruby Saltbush |
| SS | Sclerolaena diacantha | Grey Copperburr |
| SS | Olearia pimeleoides | Pimelea Daisy-bush |
| SS | Rhagodia spinescens | Hedge Saltbush |
| MH | Einadia nutans ssp. nutans | Nodding Saltbush |
| MH | Vittadinia dissecta s.l. | Dissected New Holland Daisy |
| MH | Calandrinia eremaea | Small Purslane |
| MH | Crassula colorata | Dense Crassula |
| SH | Actinobole uliginosum | Flannel Cudweed |
| MTG | Austrodanthonia caespitosa | Common Wallaby-grass |
| MTG | Austrostipa spp. | Spear-grass |
| MNG | Austrostipa elegantissima | Feather Spear-grass |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 97: Semi-arid Woodland - Goldfields bioregion | |
|  | Recruitment:  Continuous  Organic Litter:  20% cover  Logs:  20m/0.1 ha.  Weediness:  LF Code Typical Weed Species Common Name Invasive Impact  LH Brassica tournefortii Mediterranean Turnip high high  LH Reichardia tingitana Reichardia high low  MH Silene spp. Catchfly high high  SH Medicago minima Little Medic high high  MTG Schismus barbatus Arabian Grass high high MTG Pentaschistis airoides ssp. airoides False Hair-grass high high  MNG Bromus rubens Red Brome high high  MNG Vulpia myuros Rat's-tail Fescue high high MNG Critesion murinum subsp. glaucum Blue Barley-grass high high SC Asparagus asparagoides Bridal Creeper 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

Goldfields bioregion

EVC 104: Lignum Swamp

###### Description:

Typically treeless shrubland to 4 m, tall with robust (but sometimes patchy) growth of lignum. Widespread wetland vegetation type in low rainfall areas on heavy soils, subject to infrequent inundation resulting from overbank flows from rivers or local runoff.

|  |  |  |  |
| --- | --- | --- | --- |
| Life forms: Life form | #Spp | %Cover | LF code |
| Medium Shrub | 1 | 20% | MS |
| Large Herb\* | 4 | 5% | LH |
| Medium Herb\* | 8 | 25% | MH |
| Small or Prostrate Herb\* | 2 | 10% | SH |
| Large Non-tufted Graminoid | 1 | 5% | LNG |
| Medium to Small Tufted Graminoid | 2 | 5% | MTG |
| Medium to Tiny Non-tufted Graminoid\* | 2 | 5% | MNG |
| Scrambler or Climber | 1 | 1% | SC |
| Soil crust\* | na | 10% | S/C |

\* Largely seasonal life form

###### Total understorey projective foliage cover 75%

|  |  |  |
| --- | --- | --- |
| LF Code | Species typical of at least part of EVC range | Common Name |
| MS | Muehlenbeckia florulenta | Tangled Lignum |
| MS | Chenopodium nitrariaceum | Nitre Goosefoot |
| SS | Sclerolaena tricuspis | Three-spined Bassia |
| SS | Sclerolaena muricata | Five-spined Bassia |
| LH | Rumex spp. | Dock |
| MH | Marsilea drummondii | Common Nardoo |
| MH | Goodenia spp. | Goodenia |
| MH | Ranunculus spp. | Buttercup |
| MNG | Eragrostis infecunda | Barren Cane grass |
| MTG | Juncus spp. | Rush |
| MNG | Eleocharis spp. | Spike-sedge |
| SC | Asperula gemella | Twin-leaf Bedstraw |

Recruitment:

Continuous

###### Organic Litter:

5% cover

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Weediness: |  | | | |
| LF Code  SH | Typical Weed Species  Phyla canescens | Common Name  Lippia | Invasive  high | Impact  high |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 104: Lignum Swamp - Goldfields bioregion | |
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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Goldfields bioregion

EVC 125: Plains Grassy Wetland

##### Description:

This EVC is usually treeless, but in some instances can include sparse or 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 | 5 | 5% | LH |
| Medium Herb | 11 | 20% | MH |
| Small or Prostrate Herb | 6 | 10% | SH |
| Large Tufted Graminoid | 2 | 5% | LTG |
| Medium to Small Tufted Graminoid | 7 | 20% | MTG |
| Medium to Tiny Non-tufted Graminoid | 3 | 30% | MNG |
| Bryophytes/Lichens | na | 10% | BL |

|  |  |  |
| --- | --- | --- |
| **LF Code** | **Species typical of at least part of EVC range** | **Common Name** |
| LH | Rumex dumosus | Wiry Dock |
| LH | Brachyscome basaltica var. gracilis | Woodland Swamp-daisy |
| LH | Epilobium hirtigerum | Hairy Willow-herb |
| LH | Eryngium ovinum | Blue Devil |
| MH | Craspedia glauca spp. agg. | Common Billy-buttons |
| MH | Potamogeton tricarinatus s.l. | Floating Pondweed |
| MH | Marsilea drummondii | Common Nardoo |
| SH | Lobelia concolor | Poison Pratia |
| SH | Limosella australis | Austral Mudwort |
| SH | Myriocephalus rhizocephalus | Woolly-heads |
| SH | Neopaxia australasica | White Purslane |
| LTG | Amphibromus nervosus | Common Swamp Wallaby-grass |
| LTG | Juncus flavidus | Gold Rush |
| MTG | Austrodanthonia duttoniana | Brown-back Wallaby-grass |
| MTG | Juncus holoschoenus | Joint-leaf Rush |
| MTG | Carex inversa | Knob Sedge |
| MTG | Amphibromus macrorhinus | Long-nosed Swamp Wallaby-grass |
| MNG | Eleocharis acuta | Common Spike-sedge |
| MNG | Eragrostis infecunda | Southern Cane-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)

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 125: Plains Grassy Wetland - Goldfields bioregion | |
|  | **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  LNG Avena fatua Wild Oat high low  MTG Vulpia bromoides Squirrel-tail Fescue high low  MTG Critesion hystrix Mediterranean Barley-grass high low  MTG Briza minor Lesser Quaking-grass high low  Published by the Victorian Government Department of Sustainability and Environment May 2005  © The State of Victoria Department of Sustainability and Environment 2005  This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:   * the copyright owner is acknowledged; * no official connection is claimed; * the material is made available without charge or at cost; and * the material is not subject to inaccurate, misleading or derogatory treatment.   Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be  directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.  For more information contact: Customer Service Centre, 136 186  This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication. |

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

Goldfields bioregion

EVC 127: Valley Heathy Forest

##### Description:

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

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

##### Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 30% | Eucalyptus melliodora  Eucalyptus goniocalyx s.l.  Eucalyptus macrorhyncha | Yellow Box  Bundy  Red Stringybark |

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

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 127: Valley Heathy Forest - Goldfields 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 Cassinia aculeata Common Cassinia  MS Daviesia leptophylla Narrow-leaf Bitter-pea  MS Cassinia arcuata Drooping Cassinia  SS Platylobium obtusangulum Common Flat-pea  SS Dillwynia cinerascens s.l. Grey Parrot-pea  SS Hovea heterophylla Common Hovea  SS Pimelea humilis Common Rice-flower  PS Acrotriche serrulata Honey-pots  PS Bossiaea prostrata Creeping Bossiaea  MH Leptorhynchos tenuifolius Wiry Buttons  MH Gonocarpus tetragynus Common Raspwort  MH Helichrysum scorpioides Button Everlasting  SH Opercularia varia Variable Stinkweed  SH Drosera whittakeri ssp. aberrans Scented Sundew  SH Oxalis corniculata s.l. Yellow Wood-sorrel  LTG Xanthorrhoea minor ssp. lutea Small Grass-tree  LTG Deyeuxia quadriseta Reed Bent-grass  LNG Gahnia radula Thatch Saw-sedge  MTG Lomandra filiformis Wattle Mat-rush  MTG Joycea pallida Silvertop Wallaby-grass  MTG Poa morrisii Soft Tussock-grass  MTG Dianella revoluta s.l. Black-anther Flax-lily  MNG Microlaena stipoides var. stipoides Weeping Grass  GF Lindsaea linearis Screw Fern  SC Billardiera scandens Common Apple-berry  SC Hardenbergia violacea Purple Coral-pea  **Recruitment:**  Episodic/Fire. Desirable period between disturbances is 30 years.  **Organic Litter:**  40 % cover  **Logs:**  20 m/0.1 ha.  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  T Pinus radiata Radiata Pine low high MS Rubus fruticosus spp. agg. Blackberry high high  LH Plantago lanceolata Ribwort high low  MH Hypochoeris radicata Cat's Ear high low  MTG Briza maxima Large Quaking-grass high low MTG Anthoxanthum odoratum Sweet Vernal-grass high high  Published by the Victorian Government Department of Sustainability and Environment May 2004  © The State of Victoria Department of Sustainability and Environment 2004  This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:   * the copyright owner is acknowledged; * no official connection is claimed; * the material is made available without charge or at cost; and * the material is not subject to inaccurate, misleading or derogatory treatment.   Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.  For more information contact: Customer Service Centre, 136 186  This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication. |

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

Goldfields bioregion

EVC 164: Creekline Herb-rich Woodland

##### Description:

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

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

##### Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 15% | Eucalyptus ovata  Eucalyptus camaldulensis Eucalyptus aromaphloia | Swamp Gum  River Red Gum Scentbark |

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

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 164: Creekline Herb-rich Woodland - Goldfields bioregion | |
|  | **LF Code Species typical of at least part of EVC range Common Name**  T Acacia mearnsii Black Wattle  MS Bursaria spinosa Sweet Bursaria  MS Leptospermum continentale Prickly Tea-tree  LH Senecio quadridentatus Cotton Fireweed  MH Viola hederacea sensu Willis (1972) Ivy-leaf Violet  MH Drosera peltata Pale Sundew  MH Poranthera microphylla Small Poranthera  SH Dichondra repens Kidney-weed  LTG Poa labillardierei Common Tussock-grass  LNG Gahnia radula Thatch Saw-sedge  MTG Poa clelandii Noah’s Ark  MTG Pentapogon quadrifidus Five-awned Spear-grass  MTG Schoenus apogon Common Bog-sedge  MNG Microlaena stipoides var. stipoides Weeping Grass  **Recruitment:**  Continuous  **Organic Litter:**  20 % cover  **Logs:**  10 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 MTG Anxothanthum odoratum Sweet Vernal Grass high high  LNG Holcus lanatus Yorkshire Fog high high  Published by the Victorian Government Department of Sustainability and Environment April 2004  © The State of Victoria Department of Sustainability and Environment 2004  This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:   * the copyright owner is acknowledged; * no official connection is claimed; * the material is made available without charge or at cost; and * the material is not subject to inaccurate, misleading or derogatory treatment.   Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.  For more information contact: Customer Service Centre, 136 186  This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication. |

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

Goldfields bioregion

EVC 175\_61: Low Rises 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 diverse but sparse in cover. In the Goldfields bioregion, Grassy Woodland occurs on sedimentary soils on the lowest slopes at the interface between the plains and the infertile woodlands of the sedimentary hills.

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

##### Tree Canopy Cover:

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form**  Immature Canopy Tree | **#Spp** | **%Cover**  5% | **LF code**  IT |
| Medium Shrub | 6 | 15% | MS |
| Small Shrub | 3 | 5% | SS |
| Prostrate Shrub | 1 | 1% | PS |
| Large Herb | 4 | 10% | LH |
| Medium Herb | 10 | 15% | MH |
| Small or Prostrate Herb | 2 | 5% | SH |
| Large Tufted Graminoid | 2 | 5% | LTG |
| Medium to Small Tufted Graminoid | 11 | 25% | MTG |
| Medium to Tiny Non-tufted Graminoid | 3 | 5% | MNG |
| Bryophytes/Lichens | na | 10% | BL |
| Soil Crust | na | 10% | S/C |

|  |  |  |
| --- | --- | --- |
| **LF Code**  MS | **Species typical of at least part of EVC range**  Cassinia arcuata | **Common Name**  Drooping Cassinia |
| MS | Acacia pycnantha | Golden Wattle |
| MS | Acacia acinacea s.l. | Gold-dust Wattle |
| MS | Dodonaea viscosa ssp. cuneata | Wedge-leaf Hop-bush |
| PS | Astroloma humifusum | Cranberry Heath |
| SS | Pultenaea largiflorens | Twiggy Bush-pea |
| SS | Pimelea humilis | Common Rice-flower |
| SS | Eutaxia microphylla var. microphylla | Common Eutaxia |
| PS | Astroloma humifusum | Cranberry Heath |
| LH | Xerochrysum viscosum | Shiny Everlasting |
| LH | Chrysocephalum semipapposum | Clustered Everlasting |
| LH | Wahlenbergia luteola | Bronze Bluebell |
| LH | Senecio tenuiflorus | Slender Fireweed |
| MH | Veronica plebeia | Trailing Speedwell |
| MH | Daucus glochidiatus | Australian Carrot |
| MH | Einadia nutans ssp. nutans | Nodding Saltbush |
| MH | Vittadinia cuneata | Fuzzy New Holland Daisy |
| SH | Crassula sieberiana | Sieber Crassula |
| SH | Hydrocotyle laxiflora | Stinking Pennywort |
| LTG | Austrostipa mollis | Supple Spear-grass |
| MTG | Elymus scaber var. scaber | Common Wheat-grass |
| MTG | Austrostipa scabra ssp. falcata | Rough Spear-grass |
| MTG | Poa sieberiana | Grey Tussock-grass |
| MTG | Austrodanthonia setacea | Bristly Wallaby-grass |
| MNG | Austrostipa elegantissima | Feather Spear-grass |
| SC | Thysanotus patersonii | Twining Fringe-lily |
| SC | Convolvulus erubescens spp. agg. | Pink Bindweed |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 175\_61: Low Rises Grassy Woodland - Goldfields bioregion | |
|  | **Recruitment:**  Continuous  **Organic Litter:**  20 % 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  LH Cirsium vulgare Spear Thistle high high  MH Hypochoeris radicata Cat's Ear high low  MH Petrorhagia velutina Velvety Pink high low  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 Bromus hordeaceus ssp. hordeaceus Soft Brome high low  MTG Bromus diandrus Great Brome high low  MNG Aira elegantissima Delicate Hair-grass high low  MNG Aira cupaniana Quicksilver Grass high low  MNG Vulpia myuros Rat's-tail Fescue high low  Published by the Victorian Government Department of Sustainability and Environment April 2004  © The State of Victoria Department of Sustainability and Environment 2004  This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:   * the copyright owner is acknowledged; * no official connection is claimed; * the material is made available without charge or at cost; and * the material is not subject to inaccurate, misleading or derogatory treatment.   Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.  For more information contact: Customer Service Centre, 136 186  This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication. |

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

Goldfields bioregion

EVC 175\_62: Granitic Grassy Woodland

##### Description:

A variable eucalypt woodland or open forest to 15 m tall over a distinct large and medium shrub layer and diverse ground layer of grasses and herbs. It occurs on sites with moderate fertility on plains or weathered undulating granitic hills in areas with moderately high rainfall (>600 mm per annum).

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

##### Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 15% | Eucalyptus rubida  Eucalyptus viminalis Eucalyptus camaldulensis  Eucalyptus ovata | Candlebark  Manna Gum River Red 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 | 2 | 15% | MS |
| Small Shrub | 1 | 1% | SS |
| Prostrate Shrub | 1 | 1% | PS |
| Medium Herb | 8 | 20% | MH |
| Small or Prostrate Herb | 3 | 10% | SH |
| Large Tufted Graminoid | 1 | 1% | LTG |
| Medium to Small Tufted Graminoid | 8 | 40% | MTG |
| Medium to Tiny Non-tufted Graminoid | 1 | 5% | MNG |
| Ground Fern | 1 | 5% | GF |
| Bryophytes/Lichens | na | 10% | BL |

|  |  |  |
| --- | --- | --- |
| **LF Code**  T | **Species typical of at least part of EVC range**  Acacia melanoxylon | **Common Name**  Blackwood |
| T | Acacia implexa | Lightwood |
| MS | Acacia pycnantha | Golden Wattle |
| MS | Acacia paradoxa | Hedge Wattle |
| MS | Cassinia arcuata | Drooping Cassinia |
| SS | Pimelea humilis | Common Rice-flower |
| PS | Bossiaea prostrata | Creeping Bossiaea |
| MH | Gonocarpus tetragynus | Common Raspwort |
| MH | Drosera peltata ssp. auriculata | Tall Sundew |
| MH | Acaena novae-zelandiae | Bidgee-widgee |
| MH | Chrysocephalum apiculatum s.l. | Common Everlasting |
| SH | Dichondra repens | Kidney-weed |
| SH | Opercularia varia | Variable Stinkweed |
| SH | Drosera whittakeri ssp. aberrans | Scented Sundew |
| SH | Hydrocotyle laxiflora | Stinking Pennywort |
| LTG | Deyeuxia quadriseta | Reed Bent-grass |
| MTG | Themeda triandra | Kangaroo Grass |
| MTG | Lomandra filiformis | Wattle Mat-rush |
| MTG | Poa sieberiana | Grey Tussock-grass |
| MTG | Dianella revoluta s.l. | Black-anther Flax-lily |
| MNG | Microlaena stipoides var. stipoides | Weeping Grass |
| GF | Pteridium esculentum | Austral Bracken |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 175\_62: Granitic Grassy Woodland - Goldfields 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 MTG Briza maxima Large Quaking-grass high low  MTG Romulea rosea Onion Grass high low  MTG Briza minor Lesser Quaking-grass high low  MNG Vulpia myuros Rat's-tail Fescue 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**

Goldfields bioregion

EVC 198: Sedgy Riparian Woodland

##### Description:

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

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

##### Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 20% | Eucalyptus ovata  Eucalyptus radiata ssp. radiata Eucalyptus obliqua | Swamp Gum  Narrow-leaf Peppermint Messmate Stringybark |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form**  Immature Canopy Tree | **#Spp** | **%Cover**  5% | **LF code**  IT |
| Understorey Tree or Large Shrub | 1 | 10% | T |
| Medium Shrub | 4 | 20% | MS |
| Small Shrub | 2 | 5% | SS |
| Large Herb | 1 | 1% | LH |
| Medium Herb | 7 | 10% | MH |
| Small or Prostrate Herb | 2 | 5% | SH |
| Large Tufted Graminoid | 3 | 30% | LTG |
| Large Non-tufted Graminoid | 2 | 10% | LNG |
| Medium to Small Tufted Graminoid | 7 | 10% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 15% | MNG |
| Ground Fern | 1 | 5% | GF |
| Bryophytes/Lichens | na | 10% | BL |

|  |  |  |  |
| --- | --- | --- | --- |
| **LF Code**  T |  | **Species typical of at least part of EVC range**  Acacia melanoxylon | **Common Name**  Blackwood |
| MS |  | Leptospermum continentale | Prickly Tea-tree |
| MS | r | Bossiaea cordigera | Wiry Bossiaea |
| MS |  | Epacris impressa | Common Heath |
| MS |  | Acacia verticillata | Prickly Moses |
| SS |  | Dillwynia cinerascens s.l. | Grey Parrot-pea |
| SS |  | Olearia erubescens | Moth Daisy-bush |
| MH |  | Gonocarpus tetragynus | Common Raspwort |
| MH |  | Viola hederacea sensu Willis (1972) | Ivy-leaf Violet |
| MH |  | Drosera peltata ssp. auriculata | Tall Sundew |
| SH |  | Hypericum japonicum | Matted St John's Wort |
| SH |  | Hydrocotyle sibthorpioides | Shining Pennywort |
| LTG |  | Gahnia sieberiana | Red-fruit Saw-sedge |
| LTG |  | Lepidosperma elatius | Tall Sword-sedge |
| LTG |  | Deyeuxia quadriseta | Reed Bent-grass |
| LNG |  | Tetrarrhena juncea | Forest Wire-grass |
| MTG |  | Lomandra filiformis | Wattle Mat-rush |
| MTG |  | Dianella tasmanica | Tasman Flax-lily |
| MTG |  | Lomandra longifolia | Spiny-headed Mat-rush |
| MNG |  | Microlaena stipoides var. stipoides | Weeping Grass |
| MNG |  | Poa tenera | Slender Tussock-grass |
| GF |  | Pteridium esculentum | Austral Bracken |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 198: Sedgy Riparian Woodland - Goldfields bioregion | |
|  | **Recruitment:**  Continuous  **Organic Litter:**  30 % 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 Leontodon taraxacoides ssp. taraxacoides Hairy Hawkbit high low MH Prunella vulgaris Self-heal high low  LNG Holcus lanatus Yorkshire Fog high high MTG Anthoxanthum odoratum Sweet Vernal-grass high high  MTG Agrostis capillaris s.l. Brown-top Bent 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**

Goldfields bioregion

EVC 235: Plains Woodland / Herb-rich Gilgai Wetland Mosaic

##### Description:

Open woodland to 15 m tall on broad alluvial plains and along ephemeral drainage lines. Soils are generally poorly drained heavy clays which form distinctive “gilgai” crests and troughs in a fine-scale mosaic. The understorey consists of few, if any shrubs while the ground layer is made up of a combination of “dryland” herbs/grasses and amphibious herbs/grasses tolerant of seasonal inundation.

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species** | **DBH(cm)** | **#/ha** |
| Eucalyptus spp.  Allocasuarina luehmannii | 70 cm  40 cm | 10 / ha |

##### Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 15% | Eucalyptus camaldulensis  Eucalyptus microcarpa Allocasuarina luehmannii | River Red-gum  Grey Box Buloke |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** | **#Spp** | **%Cover** | **LF code** |
| Immature Canopy Tree |  | 5% | IT |
| Medium Shrub | 2 | 10% | MS |
| Large Herb | 2 | 5% | LH |
| Medium Herb | 9 | 15% | MH |
| Small or Prostrate Herb | 3 | 15% | SH |
| Large Tufted Graminoid | 1 | 1% | LTG |
| Medium to Small Tufted Graminoid | 8 | 20% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 5% | MNG |
| Bryophytes/Lichens | na | 10% | BL |
| Soil Crust | na | 10% | S/C |
| **Total understorey projective foliage cover** |  | **90%** |  |

|  |  |  |
| --- | --- | --- |
| **LF Code**  MS | **Species typical of at least part of EVC range**  Acacia pycnantha | **Common Name**  Golden Wattle |
| MS | Acacia paradoxa | Hedge Wattle |
| PS | Astroloma humifusum | Cranberry Heath |
| LH | Senecio tenuiflorus | Slender Fireweed |
| LH | Senecio quadridentatus | Cotton Fireweed |
| MH | Veronica plebeia | Trailing Speedwell |
| MH | Calotis anthemoides | Cut-leaf Burr-daisy |
| MH | Brachyscome basaltica var. gracilis | Woodland Swamp-daisy |
| MH | Vittadinia cuneata | Fuzzy New Holland-daisy |
| SH | Cymbonotus preissianus | Austral Bear's-ear |
| SH | Myriophyllum integrifolium | Tiny Water-milfoil |
| SH | Phyllangium divergens | Wiry Mitrewort |
| LTG | Juncus pallidus | Pale Rush |
| LTG | Deyeuxia quadriseta | Reed Bent-grass |
| MTG | Lomandra filiformis | Wattle Mat-rush |
| MTG | Isolepis platycarpa | Broad-fruit Club-sedge |
| MTG | Pentapogon quadrifidus | Five-awned Spear-grass |
| MTG | Burchardia umbellata | Milkmaids |
| MNG | Microlaena stipoides var. stipoides | Weeping Grass |
| TTG | Centrolepis fascicularis | Tufted Centrolepis |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 235: Plains Woodland / Herb-rich Gilgai Wetland Mosaic  - Goldfields bioregion | |
|  | **Recruitment:**  Continuous  **Organic Litter:**  20 % 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 Leontodon taraxacoides ssp. taraxacoides Hairy Hawkbit high low MH Arctotheca calendula Cape Weed high low  MH Anagallis arvensis Pimpernel high low  MTG Vulpia bromoides Squirrel-tail Fescue high low  MTG Briza minor Lesser Quaking-grass high low  TTG Cyperus tenellus Tiny Flat-sedge high low  Published by the Victorian Government Department of Sustainability and Environment October 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**

Goldfields bioregion

EVC 264: Sand Ridge Woodland

##### Description:

Open pine-box woodland to 15 m tall with a small or medium shrub layer of variable density and including a range of annual herbs, grasses and geophytes, in the dense ground layer. Occupies distinctive sandy rises (or sand mounts) adjacent to major rivers and wetlands. Very sandy, deep, free draining, moderately fertile soil, developed on sand blown up by wind action from a prior stream bed.

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

##### Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 15% | Eucalyptus melliodora  Callitris glaucophylla Allocasuarina luehmannii | Yellow Box  WhiteCypress-pine Buloke |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form**  Immature Canopy Tree | **#Spp** | **%Cover**  5% | **LF code**  IT |
| Medium Shrub | 4 | 20% | MS |
| Small Shrub | 3 | 10% | SS |
| Prostrate Shrub | 2 | 5% | PS |
| Large Herb | 2 | 5% | LH |
| Medium Herb | 10 | 15% | MH |
| Small or Prostrate Herb | 5 | 5% | SH |
| Large Tufted Graminoid | 3 | 10% | LTG |
| Medium to Small Tufted Graminoid | 8 | 15% | MTG |
| Ground Fern | 1 | 5% | GF |
| Scrambler or Climber | 1 | 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**  Dodonaea viscosa | **Common Name**  Sticky Hop-bush |
| MS | Banksia marginata | Silver Banksia |
| SS | Pultenaea tenuifolia | Slender Bush-pea |
| SS | Hibbertia riparia | Erect Guinea-flower |
| PS | Kennedia prostrata | Running Postman |
| LH | Senecio quadridentatus | Cottony Fireweed |
| LH | Senecio tenuiflorus | Narrow-leaf Groundsel |
| MH | Wahlenbergia gracilis s.l. | Sprawling Bluebell |
| MH | Wahlenbergia luteola | Tufted Bluebell |
| MH | Gonocarpus tetragynus | Common Raspwort |
| SH | Crassula sieberiana | Sieber Crassula |
| SH | Millotia tenuifolia var. tenuifolia | Soft Millotia |
| SH | Euchiton sphaericus | Annual Cudweed |
| SH | Stuartina muelleri | Spoon Cudweed |
| LTG | Austrostipa mollis | Supple Spear-grass |
| LTG | Dichelachne crinita | Long-hair Plume-grass |
| MTG | Poa sieberiana | Grey Tussock-grass |
| MTG | Elymus scaber var. scaber | Common Wheat-grass |
| MTG | Dianella revoluta s.l. | Black-anther Flax-lily |
| GF | Pteridium esculentum | Austral Bracken |
| SC | Cassytha pubescens s.s. | Downy Dodder-laurel |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 264: Sand Ridge Woodland - Goldfields bioregion | |
|  | **Recruitment:**  Continuous  **Organic Litter:**  10 % cover  **Logs:**  15 m/0.1 ha.  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  MS Chrysanthemoides monilifera Boneseed high high MH Hypochoeris glabra Smooth Cat's-ear high low MH Hypochoeris radicata Cat's Ear high low  MTG Bromus diandrus Great Brome high low  MNG Vulpia bromoides Rat’s-tail Fescue high low  MNG Vulpia muralis Wall Fescue high low MNG Vulpia myuros f. myuros Rat's-tail Fescue high low  MNG Aira elegantissima Delicate Hair-grass high low  MNG Aira caryophyllea Silvery Hair-grass high low  MNG Ehrharta calycina Perennial Veldt-grass high high  Published by the Victorian Government Department of Sustainability and Environment May 2004  © The State of Victoria Department of Sustainability and Environment 2004  This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:   * the copyright owner is acknowledged; * no official connection is claimed; * the material is made available without charge or at cost; and * the material is not subject to inaccurate, misleading or derogatory treatment.   Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.  For more information contact: Customer Service Centre, 136 186  This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication. |

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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Goldfields 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)  80 cm | #/ha  15 / ha |

###### Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| %cover | Character Species | Common Name |
| 20% | 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 | 1 | 5% | T |
| Medium Shrub | 2 | 30% | MS |
| Small Shrub | 3 | 15% | SS |
| Medium Herb | 2 | 1% | MH |
| Large Tufted Graminoid | 1 | 5% | LTG |
| Medium to Small Tufted Graminoid | 1 | 1% | MTG |
| Bryophytes/Lichens | na | 10% | BL |
| Total understorey projective foliage cover |  | 45% |  |

|  |  |  |
| --- | --- | --- |
| LF Code  T | Species typical of at least part of EVC range  Acacia mearnsii | Common Name  Black Wattle |
| MS | Leptospermum myrsinoides | Heath Tea-tree |
| MS | Leptospermum continentale | Prickly Tea-tree |
| MS | Leucopogon ericoides | Pink Beard-heath |
| MS | Banksia marginata | Silver Banksia |
| SS | Hibbertia stricta s.l. | Upright Guinea-flower |
| SS | Platylobium obtusangulum | Common Flat-pea |
| SS | Pultenaea humilis | Dwarf Bush-pea |
| SS | Isopogon ceratophyllus | Horny Cone-bush |
| MH | Drosera peltata ssp. auriculata | Tall Sundew |
| MH | Gonocarpus tetragynus | Common Raspwort |
| LTG | Xanthorrhoea australis | Austral Grass-tree |
| MTG | Lepidosperma semiteres | Wire Rapier-sedge |

Recruitment:

Continuous

###### Organic Litter:

20 % cover

###### Logs:

15 m/0.1 ha.

###### Weediness:

There are no consistent weeds in this EVC.

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 282: Shrubby Woodland - Goldfields bioregion | |
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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Goldfields bioregion

EVC 292: Red Gum Swamp

##### Description:

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

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species**  Eucalyptus spp. | **DBH(cm)**  80 cm | **#/ha**  10 / 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 | 1 | 10% | T |
| Medium Herb | 1 | 15% | MH |
| Large Tufted Graminoid | 2 | 5% | LTG |
| Medium to Small Tufted Graminoid | 2 | 10% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 40% | MNG |
| Bryophytes/Lichens | na | 10% | BL |
| **Total understorey projective foliage cover** |  | **90%** |  |

|  |  |  |
| --- | --- | --- |
| **LF Code**  MH | **Species typical of at least part of EVC range**  Potamogeton tricarinatus s.l. | **Common Name**  Floating Pondweed |
| MH | Gratiola peruviana | Austral Brooklime |
| SH | Lobelia pratioides | Poison Lobelia |
| LTG | Juncus flavidus | Gold Rush |
| LTG | Carex tereticaulis | Hollow Sedge |
| MTG | Triglochin procerum s.l. | Water Ribbons |
| MTG | Whalleya proluta | Rigid Panic |
| MTG | Lachnagrostis filiformis var. filiformis | Common Blown-grass |
| MNG | Eleocharis acuta | Common Spike-sedge |
| MNG | Eragrostis infecunda | Southern Cane-grass |

**Recruitment:**

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

##### Organic Litter:

20 % cover

##### Logs:

15 m/0.1 ha.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Weediness:** |  | | | |
| **LF Code**  SH | **Typical Weed Species**  Callitriche hamulata | **Common Name**  Thread Water-starwort | **Invasive**  high | **Impact**  low |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 292: Red Gum Swamp - Goldfields bioregion | |
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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Goldfields bioregion

EVC 295: Riverine Grassy Woodland

###### Description:

Occurs on the floodplain of major rivers, in a slightly elevated position where floods are infrequent, on deposited silts and sands, forming fertile alluvial soils. River Red Gum woodland to 20 m tall with a groundlayer dominated by graminoids. Occasional tall shrubs present.

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

###### Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| %cover | Character Species | Common Name |
| 20% | Eucalyptus camaldulensis | River Red-gum |

|  |  |  |  |
| --- | --- | --- | --- |
| Understorey: Life form | #Spp | %Cover | LF code |
| Immature Canopy Tree |  | 5% | IT |
| Understorey Tree or Large Shrub | 1 | 5% | T |
| Small Shrub | 1 | 1% | SS |
| Medium Herb | 2 | 1% | MH |
| Small or Prostrate Herb | 2 | 1% | SH |
| Large Tufted Graminoid | 2 | 5% | LTG |
| Medium to Small Tufted Graminoid | 5 | 20% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 20% | MNG |
| Bryophytes/Lichens | na | 10% | BL |
| Total understorey projective foliage cover |  | 65% |  |

|  |  |  |
| --- | --- | --- |
| LF Code  T | Species typical of at least part of EVC range  Acacia dealbata | Common Name  Silver Wattle |
| MH | Sida corrugata | Variable Sida |
| MH | Oxalis perennans | Grassland Wood-sorrel |
| SH | Chamaesyce drummondii | Flat Spurge |
| SH | Azolla filiculoides | Pacific Azolla |
| LTG | Austrostipa gibbosa | Spurred Spear-grass |
| LTG | Carex tereticaulis | Hollow Sedge |
| MTG | Chloris truncata | Windmill Grass |
| MTG | Themeda triandra | Kangaroo Grass |
| MTG | Aristida behriana | Brush Wire-grass |
| MTG | Elymus scaber var. scaber | Common Wheat-grass |
| MNG | Pseudoraphis spinescens | Spiny Mud-grass |
| MNG | Eleocharis acuta | Common Spike-sedge |

Recruitment:

Continuous

###### Organic Litter:

10 % cover

###### Logs:

20 m/0.1 ha.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Weediness: |  | | | |
| LF Code | Typical Weed Species | Common Name | Invasive | Impact |
| LH MTG | Cirsium vulgare Lolium rigidum | Spear Thistle Wimmera Rye-grass | high high | high low |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 295: Riverine Grassy Woodland - Goldfields bioregion | |
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**EVC/Bioregion Benchmark for Vegetation Quality Assessment**

Goldfields 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** |
| 20% | 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 | 3 | 10% | MS |
| Small Shrub | 1 | 1% | SS |
| Large Herb | 4 | 15% | LH |
| Medium Herb | 5 | 10% | MH |
| Small or Prostrate Herb | 1 | 5% | SH |
| Large Tufted Graminoid | 3 | 10% | LTG |
| Large Non-tufted Graminoid | 1 | 5% | LNG |
| Medium to Small Tufted Graminoid | 4 | 20% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 5% | MNG |
| Scrambler or Climber | 1 | 5% | SC |
| Bryophytes/Lichens | na | 10% | BL |

|  |  |  |
| --- | --- | --- |
| **LF Code**  T | **Species typical of at least part of EVC range**  Acacia melanoxylon | **Common Name**  Blackwood |
| MS | Bursaria spinosa ssp. spinosa | Sweet Bursaria |
| MS | Viminaria juncea | Golden Spray |
| SS | Rubus parvifolius | Small-leaf Bramble |
| LH | Wahlenbergia gracilis s.s. | Sprawling Bluebell |
| LH | Senecio quadridentatus | Cottony Fireweed |
| 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 |
| SH | Dichondra repens | Kidneyweed |
| LTG | Poa labillardierei | Common Tussock-grass |
| LTG | Carex appressa | Tall Sedge |
| LNG | Phragmites australis | Common Reed |
| MTG | Lachnagrostis filiformis var. filiformis | Common Blown-grass |
| MTG | Triglochin procerum s.l. | Water-ribbons |
| MNG | Eleocharis acuta | Common Spike-sedge |
| SC | Calystegia sepium | Large Bindweed |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 641: Riparian Woodland - Goldfields bioregion | |
|  | **Recruitment:**  Continuous  **Organic Litter:**  30% cover  **Logs:**  20m / 0.1 ha  **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 high  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 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**

Goldfields bioregion

EVC 679: Drainage-line Woodland

##### Description:

Eucalypt-dominated woodland to 15 m tall 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.

|  |  |  |
| --- | --- | --- |
| **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 Eucalyptus melliodora | River Red-gum  Grey Box Yellow Box |

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** | **#Spp** | **%Cover** | **LF code** |
| Immature Canopy Tree |  | 5% | IT |
| Large Herb | 2 | 5% | LH |
| Medium Herb | 9 | 15% | MH |
| Small Herb | 3 | 5% | SH |
| Large Tufted Graminoid | 2 | 10% | LTG |
| Medium to Small Tufted Graminoid | 16 | 30% | MTG |
| Medium to Tiny Non-tufted Graminoid | 3 | 5% | MNG |
| Bryophytes/Lichens | na | 10% | BL |
| **Total understorey projective foliage cover** |  | **90%** |  |

|  |  |  |
| --- | --- | --- |
| **LF Code**  LH | **Character Species**  Senecio tenuiflorus | **Common Name**  Slender Fireweed |
| MH | Gonocarpus tetragynus | Common Raspwort |
| MH | Hypericum gramineum | Small St John's Wort |
| SH | Hydrocotyle laxiflora | Stinking Pennywort |
| LTG | Austrostipa rudis | Veined Spear-grass |
| LTG | Carex tereticaulis | Rush Sedge |
| MTG | Elymus scaber var. scaber | Common Wheat-grass |
| MTG | Austrodanthonia setacea | Bristly Wallaby-grass |
| MTG | Juncus remotiflorus | Diffuse Rush |
| MTG | Carex appressa | Tall Sedge |
| MNG | Microlaena stipoides var. stipoides | Weeping Grass |
| SC | Thysanotus patersonii | Twining Fringe-lily |

**Recruitment:**

Continuous

##### Organic Litter:

40 % cover

##### Logs:

30 m/0.1 ha.

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 679: Drainage-line Woodland - Goldfields bioregion | |
|  | **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 Anagallis arvensis Pimpernel high low  MH Hypochoeris glabra Smooth Cat's-ear high low  MH Galium murale Small Goosegrass high low  MH Oxalis pes-caprae Soursob high high  LTG Juncus acutus Spiny Rush high high  LTG Phalaris aquatica Toowoomba Canary-grass high high  MTG Briza maxima Large Quaking-grass high low  MTG Briza minor Lesser Quaking-grass high low  MTG Romulea rosea Onion Grass high low  MTG Vulpia bromoides Squirrel-tail Fescue high low MTG Bromus hordeaceus ssp. hordeaceus Soft Brome high low  MNG Aira elegantissima Delicate Hair-grass high low  MNG Vulpia muralis Wall Fescue high low  MNG Bromus madritensis Madrid Brome high low  Published by the Victorian Government Department of Sustainability and Environment May 2004  © The State of Victoria Department of Sustainability and Environment 2004  This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:   * the copyright owner is acknowledged; * no official connection is claimed; * the material is made available without charge or at cost; and * the material is not subject to inaccurate, misleading or derogatory treatment.   Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.  For more information contact: Customer Service Centre, 136 186  This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication. |

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

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** | **#Spp** | **%Cover** | **LF code** |
| Immature Canopy Tree |  | 5% | 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 | 2 | 5% | LTG |
| Large Non-tufted Graminoid | 1 | 1% | LNG |
| Medium to Small Tufted Graminoid | 15 | 20% | MTG |
| Medium to Tiny Non-tufted Graminoid | 4 | 5% | 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 - Goldfields 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 Xanthorrhoea minor ssp. lutea Small Grass-tree  LNG Gahnia radula Thatch Saw-sedge  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**

Goldfields bioregion

EVC 803: Plains Woodland (syn. Riverina 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.  Allocasuarina spp. | 70 cm  40 cm | 15 / ha |

##### Tree Canopy Cover:

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Understorey: Life form** | **#Spp** | **%Cover** | **LF code** |
| Immature Canopy Tree |  | 5% | IT |
| Medium Shrub | 1 | 5% | MS |
| Small Shrub | 1 | 1% | SS |
| Large Herb | 3 | 5% | LH |
| Medium Herb | 10 | 30% | MH |
| Small or Prostrate Herb | 3 | 10% | SH |
| Medium to Small Tufted Graminoid | 18 | 40% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 5% | MNG |
| Bryophytes/Lichens | na | 10% | BL |
| Soil Crust | na | 10% | S/C |

|  |  |  |
| --- | --- | --- |
| **LF Code**  MS | **Species typical of at least part of EVC range**  Acacia acinacea s.l. | **Common Name**  Gold-dust Wattle |
| MS | Acacia pycnantha | Golden Wattle |
| SS | Lissanthe strigosa ssp. subulata | Peach Heath |
| LH | Wahlenbergia luteola | Bronze Bluebell |
| LH | Wahlenbergia communis s.l. | Tufted Bluebell |
| MH | Brachyscome lineariloba | Hard-head Daisy |
| SH | Drosera whittakeri ssp. aberrans | Scented Sundew |
| SH | Ptilotus spathulatus f. spathulatus | Pussy Tails |
| SH | Drosera glanduligera | Scarlet Sundew |
| SH | Siloxerus multiflorus | Small Wrinklewort |
| MTG | Austrostipa scabra ssp. falcata | Rough Spear-grass |
| MTG | Elymus scaber var. scaber | Common Wheat-grass |
| MTG | Lomandra filiformis | Wattle Mat-rush |
| MTG | Austrodanthonia setacea | Bristly Wallaby-grass |

**Recruitment:**

Continuous

##### Organic Litter:

10 % cover

##### Logs:

10 m/0.1 ha.

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 803: Plains Woodland (syn. Riverina Plains Grassy Woodland) - Goldfields bioregion | |
|  | **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 Galium divaricatum Slender Bedstraw high low  MH Hypochoeris glabra Smooth Cat's-ear high low MH Trifolium campestre var. campestre Hop Clover high low  MH Cicendia quadrangularis Square Cicendia high low  MH Anagallis arvensis Pimpernel high low  LNG Holcus lanatus Yorkshire Fog high high  LNG Avena fatua Wild Oat 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 Bromus diandrus Great Brome high low MTG Bromus hordeaceus ssp. hordeaceus Soft Brome high low  MTG Vulpia bromoides Squirrel-tail Fescue 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 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

Goldfields bioregion

EVC 815: Riverine Swampy Woodland

###### Description:

Eucalypt woodland to 15 m tall above a grassy to sedgy – herbaceous ground layer, with species indicative of periodic water- logging. Occupies areas subject to shallow inundation only from higher-level flooding on riverine flood plain. Soils are typically heavy, cracking mottled grey-brown clays/clay-loams and water-retentive, often with a gilgai profile which can be wet during winter.

###### Large trees:

|  |  |  |
| --- | --- | --- |
| Species | DBH(cm) | #/ha |
| Eucalyptus camaldulensis  Eucalyptus largiflorens | 70 cm  50 cm | 15 / ha |

Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| %cover | Character Species | Common Name |
| 20% | Eucalyptus camaldulensis | River Red-gum |
|  | Eucalyptus largiflorens | Black Box |

|  |  |  |  |
| --- | --- | --- | --- |
| Understorey: Life form | #Spp | %Cover | LF code |
| Immature Canopy Tree |  | 5% | IT |
| Large Herb | 2 | 5% | LH |
| Medium Herb | 3 | 10% | MH |
| Small or Prostrate Herb | 1 | 5% | SH |
| Large Tufted Graminoid | 3 | 10% | LTG |
| Medium to Small Tufted Graminoid | 2 | 10% | MTG |
| Medium to Tiny Non-tufted Graminoid | 3 | 20% | MNG |
| Total understorey projective foliage cover |  | 65% |  |

|  |  |  |
| --- | --- | --- |
| LF Code  LH | Species typical of at least part of EVC range  Wahlenbergia fluminalis | Common Name  River Bluebell |
| LH | Brachyscome basaltica var. gracilis | Woodland Swamp-daisy |
| MH | Marsilea drummondii | Common Nardoo |
| SH | Lobelia concolor | Poison Pratia |
| LTG | Amphibromus nervosus | Common Swamp Wallaby-grass |
| LTG | Carex tereticaulis | Rush Sedge |
| MTG | Austrodanthonia duttoniana | Brown-back Wallaby-grass |
| MNG | Eleocharis acuta | Common Spike-sedge |
| MNG | Eleocharis pusilla | Small Spike-sedge |

Recruitment:

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

###### Organic Litter:

10% cover

###### Logs:

10 m/0.1 ha.

###### Weediness:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| LF Code  LH | Typical Weed Species  Cirsium vulgare | Common Name  Spear Thistle | Invasive  high | Impact  high |
| MH | Hypochoeris radicata | Cat's Ear | high | low |
| LNG | Avena fatua | Wild Oat | high | low |
| MTG | Vulpia bromoides | Squirrel-tail Fescue | high | low |
| MTG | Critesion hystrix | Mediterranean Barley-grass | high | low |
| MTG | Briza minor | Lesser Quaking-grass | high | low |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 815: Riverine Swampy Woodland - Goldfields bioregion | |
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EVC/Bioregion Benchmark for Vegetation Quality Assessment

Goldfields bioregion

EVC 851: Stream-Bank Shrubland

###### Description:

Rivers and major streams where the watercourse consists of either rocky banks, a flat rocky stream bed or broad gravel banks which are often dry but are also regularly flooded by fast flowing waters. Annual rainfall is usually below 700 mm. There is a sparse overstorey of trees to 20 m tall, a dominant tall shrub layer and a ground layer of sedges and herbs.

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

###### Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| %cover | Character Species | Common Name |
| 10% | Eucalyptus globulus ssp. pseudoglobulus | Gippsland Blue-gum |

|  |  |  |  |
| --- | --- | --- | --- |
| Understorey: Life form | #Spp | %Cover | LF code |
| Immature Canopy Tree |  | 5% | IT |
| Understorey Tree or Large Shrub | 1 | 10% | T |
| Medium Shrub | 10 | 40% | MS |
| Large Herb | 4 | 5% | LH |
| Medium Herb | 9 | 20% | MH |
| Small or Prostrate Herb | 2 | 5% | SH |
| Large Tufted Graminoid | 3 | 15% | LTG |
| Medium to Small Tufted Graminoid | 3 | 10% | MTG |
| Medium to Tiny Non-tufted Graminoid | 2 | 10% | MNG |
| Ground Fern | 1 | 1% | GF |
| Scrambler or Climber | 2 | 5% | SC |
| Bryophytes/Lichens | na | 10% | BL |

Ecological Vegetation Class bioregion benchmark

|  |  |
| --- | --- |
| EVC 851: Stream-Bank Shrubland - Goldfields bioregion | |
|  | LF Code Species typical of at least part of EVC range Common Name  MS Cassinia aculeata Common Cassinia  MS Dodonaea viscosa ssp. cuneata Wedge-leaf Hop-bush  MS Acacia verticillata Prickly Moses  LH Chrysocephalum semipapposum Clustered Everlasting  LH Myriophyllum crispatum Upright Water-milfoil  LH Epilobium billardierianum ssp. cinereum Grey Willow-herb  LH Wahlenbergia stricta Tall Bluebell  MH Geranium potentilloides Cinquefoil Cranesbill  MH Acaena novae-zelandiae Bidgee-widgee  SH Dichondra repens Kidney-weed  SH Oxalis exilis Shady Wood-sorrel  SH Goodenia lanata Trailing Goodenia  SH Leptinella filicula Mountain Cotula  LTG Lomandra longifolia Spiny-headed Mat-rush  LTG Carex polyantha River Sedge  LTG Juncus gregiflorus Green Rush  LTG Carex appressa Tall Sedge  MTG Poa labillardierei Common Tussock-grass  MTG Luzula meridionalis var. flaccida Common Woodrush  MTG Lepidosperma laterale Variable Sword-sedge  MTG Isolepis inundata Swamp Club-sedge  MNG Microlaena stipoides var. stipoides Weeping Grass  MNG Echinopogon ovatus Common Hedgehog-grass  GF Cheilanthes austrotenuifolia Green Rock-fern  GF Adiantum aethiopicum Common Maidenhair  SC Glycine clandestina Twining Glycine  SC Clematis microphylla Small-leaved Clematis  SC Clematis aristata Mountain Clematis  Recruitment:  Continuous  Organic Litter:  20 % cover  Logs:  10 m/0.1 ha.  Weediness:  LF Code Typical Weed Species Common Name Invasive Impact  MS Lycium ferocissimum African Box-thorn low high MS Ulex europaeus Gorse low high  MH Hypochoeris radicata Cat's Ear high low  MH Centaurium erythraea Common Centaury high low MH Cerastium glomeratum s.l. Common Mouse-ear Chickweed high low MH Anagallis arvensis Pimpernel high low  MTG Ehrharta longiflora Annual Veldt-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**

Goldfields bioregion

EVC 894: Scoria Cone Woodland

##### Description:

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

|  |  |  |
| --- | --- | --- |
| **Large trees:** |  | |
| **Species** | **DBH(cm)** | **#/ha** |
| Eucalyptus spp.  Allocasuarina spp. | 70 cm  50 cm | 15 / ha |

##### Tree Canopy Cover:

|  |  |  |
| --- | --- | --- |
| **%cover** | **Character Species** | **Common Name** |
| 15% | Eucalyptus viminalis  Allocasuarina verticillata | Manna Gum  Drooping Sheoak |

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

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

Ecological Vegetation Class bioregion benchmark

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| --- | --- |
| EVC 894: Scoria Cone Woodland – Goldfields bioregion | |
|  | **Recruitment:**  Continuous  **Organic Litter:**  20 % cover  **Logs:**  10 m/0.1 ha  **Weediness:**  **LF Code Typical Weed Species Common Name Invasive Impact**  MS Lycium ferocissimum African Box-thorn high high MH Hypochoeris radicata Cat's Ear high low MTG Briza maxima Large Quaking-grass high low  MTG Romulea rosea Onion Grass high low  MTG Holcus lanatus Yorkshire Fog high high  Published by the Victorian Government Department of Sustainability and Environment May 2004  © The State of Victoria Department of Sustainability and Environment 2004  This publication is copyright. Reproduction and the making available of this material for personal, in-house or non-commercial purposes is authorised, on condition that:   * the copyright owner is acknowledged; * no official connection is claimed; * the material is made available without charge or at cost; and * the material is not subject to inaccurate, misleading or derogatory treatment.   Requests for permission to reproduce or communicate this material in any way not permitted by this licence (or by the fair dealing provisions of the Copyright Act 1968) should be directed to the Nominated Officer, Copyright, 8 Nicholson Street, East Melbourne, Victoria, 3002.  For more information contact: Customer Service Centre, 136 186  This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication. |

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