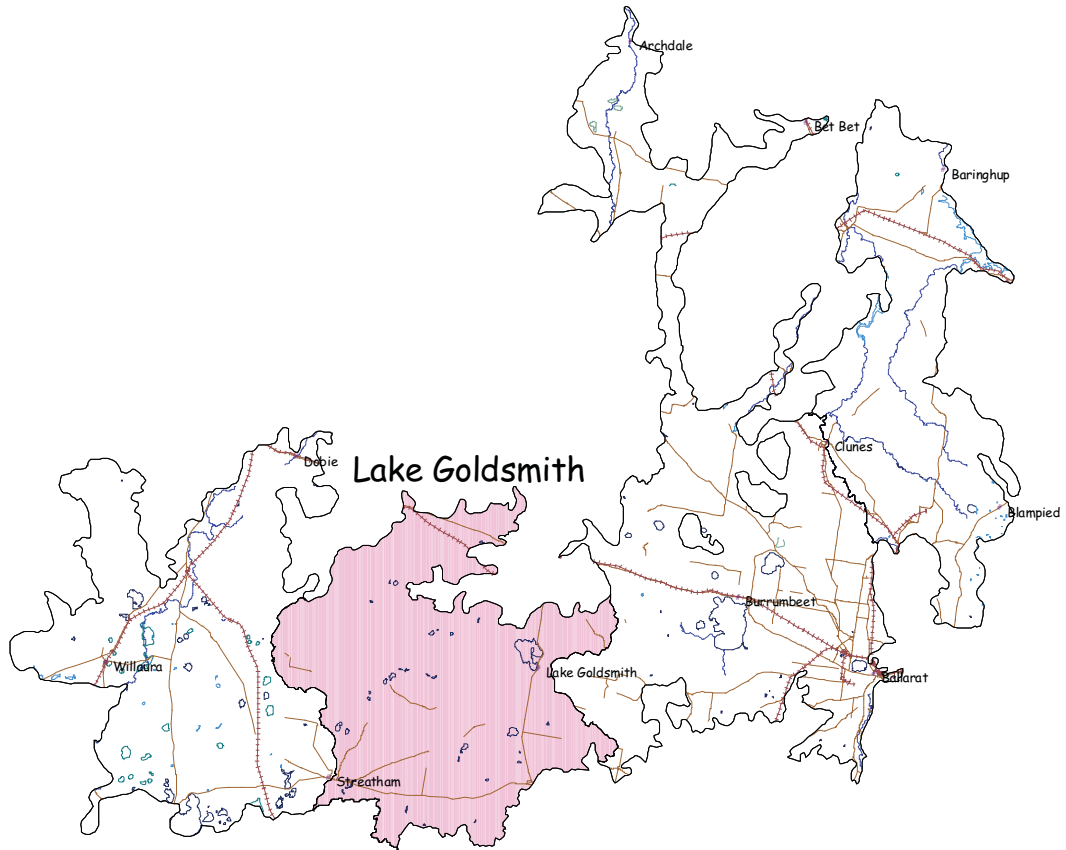


# 7. Lake Goldsmith Landscape Zone



## **7. Lake Goldsmith Landscape Zone**

### **7.1 Lake Goldsmith Landscape Zone description**

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The Lake Goldsmith Landscape Zone is bordered to the east and south by Mount Emu Creek; the north by Buangor, Raglan and Nerring and the west by Fiery Creek. Boundaries have been determined with reference to Land Systems (although Land Systems in this area are highly varied), pre-1750 EVCs and hydrology (Fiery and Mt Emu Creeks). The zone adjoins the Mount Elephant and Dundonnell Zones to the south, Willaura Zone to the west, the Central Victorian Uplands bioregion to the north, and the Ballarat Zone to the east (Map 2). The zone is within the area of the Glenelg Hopkins Catchment Management Authority area (Map 11) and includes parts of Ararat, Pyrenees, Corangamite and Golden Plains Shires (Map 12).

The zone is characterised by undulating volcanic plains with yellow duplex soils, grey cracking clays and red friable earths and stony volcanic plains with shallow stony earths and dark clay soils. Average annual rainfall generally increases to the east with Skipton receiving 630 mm on average per annum. Major agricultural activities are sheep and cattle grazing on introduced and native pastures and cropping.

Prior to 1750 the dominant vegetation was Stony Rise Herb-rich Woodland and a mosaic of Plains Grassland and Plains Grassy Woodland communities (Map 18). Wetlands were prevalent especially in the south and west with Plains Sedgely Wetland, Plains Grassy Wetland, Grey Clay Drainage Line Hermland/Sedgeland and Aquatic Hermland communities the most widespread. Riparian Woodland and Creekline Grassy Woodland occurred along the major waterways. A small area of Heathy Dry Forest occurred on lighter soils in the west.

The vast majority of vegetation in the region has been cleared for agriculture although relatively large areas of native grassland and grassy woodland remains on private land especially on stony soils (Map 9). Relatively intact native vegetation is generally restricted to small public land sites. A number of conservation reserves occur including Woodnaggarak Bushland Reserve, Lake Goldsmith Wildlife Reserve, Black Lake Wildlife Reserve, Lake Wongan Wildlife Reserve, Salt Lake Wildlife Reserve and Fiery Creek Streamside Reserve (Map 14). An area of native grassland, wetlands and stony rises on Broken Creek has been recently purchased for conservation by the government.

There are a high diversity of land systems and vegetation types and important populations of Button Wrinklewort, Clover Glycine, Spiny Rice-flower, Adamson's Blown-grass, Small Milkwort, Eastern Barred Bandicoot, Fat-tailed Dunnart and Brolga (Maps 21 and 23). The existing wildlife and bushland reserves support a range of wetland types and some grassy woodland communities. These areas require further protection and management. The gorge of the Mount Emu Creek supports unusual and rich bryophyte communities. Stream condition is moderate (Mt Emu Creek and a section of Fiery Creek) to poor (Wongan Creek and a section of Fiery Creek) (Map 17).

## **7. Lake Goldsmith Landscape Zone**

### **7.1 Lake Goldsmith Landscape Zone description (cont'd)**

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Significant issues for biodiversity conservation are the depletion of habitat for flora and fauna and the consequent loss of floristic and habitat diversity, fragmentation of remnants, changes to management of native vegetation, weed invasion, feral animals, decline and death of old trees, depletion of wetlands and degradation of streamsides and lake verges. Improved management and restoration of wetlands and wetland margins and riverine areas would provide considerable biodiversity benefits. Identification and management of significant native vegetation on private land is also required. There is considerable potential to protect threatened vegetation communities and populations of threatened species through adopting a range of conservation measures on private land. Local efforts to develop wildlife corridors (e.g. along Broken Creek) provide an example for pro-active conservation management in this region as do the ongoing conservation programs at Mooramong. Support for nature conservation is generally high and many landholders are well informed regarding conservation management issues. Protection and management of significant areas on road and rail reserves is an ongoing challenge and a high priority for biodiversity conservation. There is an opportunity to manage for conservation a number of large and significant areas of native vegetation extending from Mount Emu Creek and Lake Goldsmith to Mooramong and Banongill.

References: LCC (1980), Beauglehole (1983), Ross (1999), McDougall et al (1993), McDougall et al (1992).

## 7. Lake Goldsmith Landscape Zone

### 7.1 Lake Goldsmith Landscape Zone description (cont'd)

**Table 14. Total area of pre-1750 and extant EVCs in the Lake Goldsmith Landscape Zone**

EVC Group	EVC #	EVC Bioregional Conservation Status	EVC Name	Pre-1750 Area (ha)	Current Area (ha)
13	897	E	Plains Grassland/Plains Grassy Woodland Mosaic	67756	362
16	203	V	Stoney Rises Herb-rich Woodland	20037	124
14	55	E	Plains Grassy Woodland	5030	43
19	125	X	Plains Grassy Wetland	3146	17
13	132	E	Plains Grassland	3062	15
14	647	E	Plains Sedgy Wetland	2771	19
9	641	E	Riparian Woodland	1704	25
14	68	E	Creeklime Grassy Woodland	1653	54
7	20	LC	Heathy Dry Forest	1262	8
14	691	E	Aquatic Herbland/Plains Sedgy Wetland Mosaic	790	2
15	56	E	Floodplain Riparian Woodland	568	14
14	896	E	Grassy Woodland/Heathy Dry Forest Complex	511	2
19	643	X	Brackish Drainage Line Herbland/Sedgeland	478	1
14	175	E	Grassy Woodland	404	1
16	152	E	Alluvial Terraces Herb-rich Woodland/Plains Grassy Woodland Complex	285	3
14	283	E	Plains Sedgy Woodland	260	<1
19	74	E	Wetland Formation	89	0
13	715	E	Plains Grassland / Stony Knoll Shrubland	52	0
16	67	E	Alluvial Terraces Herb-rich Woodland	18	0
9	668	E	Riparian Woodland / Escarpment Shrubland	8	0
13	654	E	Creeklime Tussock Grassland	2	0
19	656	X	Brackish Wetland	<1	0
<b>TOTAL</b>				<b>112442</b>	<b>691</b>
0	998	NA	Water Body - Natural or man made	2557	0
0	987	NA	Plantation (undefined)	0	49

**Table 15. Total area and number of current EVCs in each conservation status in the Lake Goldsmith Zone**

EVC Conservation Status	Hectares	Number of EVCs
Endangered	542	12
Vulnerable	124	1
Depleted	0	0
Rare	0	0
Least Concern	8	1
Presumed Extinct	17	2

## 7. Lake Goldsmith Landscape Zone

### 7.1 Lake Goldsmith Landscape Zone description (cont'd)

**Table 16. List of current threatened flora the Lake Goldsmith Landscape Zone (NRE 2002x\* & SAC 2002# and EA 2003\*).**

Scientific name	Common name	Australian Status <sup>♦</sup>	Victorian Status <sup>*</sup>	FFG Act <sup>#</sup>	Recovery Plan <sup>♦</sup>	Action Statement <sup>*</sup>	BNA Unassessed	Species No.
<i>Lachnagrostis adamsonii</i>	Adamson's Blown-grass	End	v	L				148
<i>Podolepis sp. 1</i>	Basalt Podolepis		e				Un	4658
<i>Grevillea floripendula</i>	Ben Major Grevillea	Vul	v	L			Un	1535
<i>Rutidosia leptorhynchoides</i>	Button Wrinklewort	End	e	L	Y	28		2982
<i>Glycine latrobeana</i>	Clover Glycine	Vul	v	L				1456
<i>Diuris behrii</i>	Golden Cowslips		v					1061
<i>Leucochrysum albicans ssp. albicans var. tricolor</i>	Hoary Sunray	End	e				Un	4581
<i>Leptorhynchos elongatus</i>	Lanky Buttons		e				Un	1941
<i>Arachnorchis venusta</i>	Large White Spider-orchid		r	X			Un	533
<i>Helichrysum aff. rutidolepis (Lowland Swamps)</i>	Pale Swamp Everlasting		v				Un	4655
<i>Lachnagrostis punicea ssp. filifolia</i>	Purple Blown-grass		r	L			Un	4222
<i>Poa sallacustris</i>	Salt-lake Tussock-grass	Vul	v					3891
<i>Diuris sp. Aff. lanceolata (Laverton)</i>	Small Golden Moths	End	e	L				1473
<i>Comesperma polygaloides</i>	Small Milkwort		v	L		96		798
<i>Pimelea spinescens ssp. spinescens</i>	Spiny Rice-flower	Vul	e					4823
<i>Craspedia paludicola</i>	Swamp Billy-buttons		v				Un	4649

## 7. Lake Goldsmith Landscape Zone

### 7.1 Lake Goldsmith Landscape Zone description (cont'd)

**Table 17. List of current threatened fauna in the Lake Goldsmith Landscape Zone (EA 2003\*, DSE 2003<sup>^</sup>, NRE 2002x\* & SAC 2002<sup>#</sup>).**

Latin Name	Common Name	Australian Status*	Victorian Status <sup>^</sup> *	FFG Act <sup>#</sup>	Recovery Plan*	Action Statement No.*	BNA Unassessed	Species No.
<i>Anas rhynchos</i>	Australasian Shoveler	VU					Un	212
<i>Ninox connivens connivens</i>	Barking Owl	EN	L				Un	246
<i>Falco subniger</i>	Black Falcon	VU						238
<i>Oxyura australis</i>	Blue-billed Duck	EN	L					216
<i>Grus rubicunda</i>	Brolga	VU	L					177
<i>Coturnix ypsilophora australis</i>	Brown Quail	NT					Un	10
<i>Phascogale tapoatafa tapoatafa</i>	Brush-tailed Phascogale	VU	L			79	Un	1017
<i>Burhinus grallarius</i>	Bush Stone-curlew	EN	L			78	Un	174
<i>Cereopsis novaehollandiae</i>	Cape Barren Goose	NT						198
<i>Sterna caspia</i>	Caspian Tern	NT						112
<i>Stagonopleura guttata</i>	Diamond Firetail	VU					Un	652
<i>Perameles gunnii un-named subsp.</i>	Eastern Barred Bandicoot	End	CR	L	Y	4		1098
<i>Sminthopsis crassicaudata</i>	Fat-tailed Dunnart	NT					Un	1072
<i>Stictonetta naevosa</i>	Freckled Duck	EN	L			105		214
<i>Plegadis falcinellus</i>	Glossy Ibis	NT						178
<i>Ardea alba</i>	Great Egret	VU	L					187
<i>Accipiter novaehollandiae novaehollandiae</i>	Grey Goshawk	VU						220
<i>Sterna nilotica macrotarsa</i>	Gull-billed Tern	EN						111
<i>Aythya australis</i>	Hardhead	VU					Un	215
<i>Ardea intermedia</i>	Intermediate Egret	CR	L					186
<i>Rallus pectoralis pectoralis</i>	Lewin's Rail	VU						45
<i>Galaxias olidus</i>	Mountain Galaxias	DD	L				Un	4036
<i>Biziura lobata</i>	Musk Duck	VU					Un	217
<i>Nycticorax caledonicus hillii</i>	Nankeen Night Heron	NT						192
<i>Calidris melanotos</i>	Pectoral Sandpiper	NT					Un	978
<i>Phalacrocorax varius</i>	Pied Cormorant	NT						99
<i>Pedionomus torquatus</i>	Plains-wanderer	Vul	CR	L		66		20
<i>Ninox strenua</i>	Powerful Owl	VU	L			92	Un	248
<i>Platalea regia</i>	Royal Spoonbill	VU						181
<i>Chthonicola sagittata</i>	Speckled Warbler	VU					Un	504
<i>Chlidonias hybridus javanicus</i>	Whiskered Tern	NT					Un	110

## **7. Lake Goldsmith Landscape Zone**

### **7.2 Lake Goldsmith Landscape Zone priorities**

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#### **7.2.1 Summary of priority biodiversity actions for Lake Goldsmith Landscape Zone:**

The zone is highly diverse and includes relatively large areas of native vegetation remaining on private land. Conservation reserves and other public land areas support significant populations of flora and fauna. The focus of biodiversity management should be to:

- Protect habitat for threatened flora and fauna within reserves and encourage complementary management of habitat on adjoining private land.
- Identify areas on private land that support habitat for threatened flora and fauna.
- Protect, enhance and restore threatened EVCs on public and private land.
- Develop conservation agreements to protect areas supporting threatened EVCs and threatened species on private and public land.
- Implement Recovery Plans and Action Statements for threatened species and communities on public and private land.
- Protect, enhance and restore riverine corridors especially Fiery Creek and Mount Emu Creek.
- Develop a Conservation Management Network between Lake Goldsmith and Banongill.

## 7. Lake Goldsmith Landscape Zone

### 7.3 Private Land

#### **Land tenure details:**

The tenure includes all freehold land. Associated creeklines and unreserved public wetlands surrounded by freehold land are also included in this tenure for convenience. Vegetation is relatively diverse and large and significant areas of native grassland, wetland and stony knoll vegetation occur on private land especially between Banongill and Lake Goldsmith.

#### **Land Manager:**

Private landholders

#### **Stakeholders:**

Key CMA, DSE, DPI, LGA

Others LFW, GAV, ATCV, FNC, VFF, LC, TFN, TSN, FTG, GNP.

**Threatened Biodiversity Assets** (in brackets: Cons status Vic - lower case, Aust - upper case; followed by BNA priority / risk rankings for threatened taxa = 1A, 2B, etc., or un - unassessed):

**EVCs:** Plains Grassland/Plains Grassy Woodland Mosaic (e); Plains Grassy Wetland (e); Plains Sedgy Wetland (e); Aquatic Hermland/Plains Sedgy Wetland Mosaic (e); Brackish Lake (e); Creekline Grassy Woodland (e); Grey Clay Drainage Line Complex (e); Lignum-Cane Grass Swamp (e); Riparian Shrubland/Escarpment Shrubland/Grassy Woodland (e); Stony Rise Herb-rich Woodland (v); Heathy Dry Forest (d).

**Threatened flora:** Adamson's Blown-grass (Ev,1B); Clover Glycine (Vv,1B); Derrinallum Billy-buttons (v,2B); Gilgai Blown-grass (A.a.s.) (v,1B); Gilgai Blown-grass (A.b.f.) (v,1C); Hairy Tails (l, NR); Small Golden Moths (Vv,1A); Small Milkwort (v,1A); Southern Swainson-pea (r, NR); Spiny Rice-flower (Ve,3A); Spurred Spear-grass (r, NR); Wetland Blown-grass (k, NR).



*Diuris* sp. aff. *lanceolata*  
(Laverton) (Photo: John Eichler)

**Threatened fauna:** Australasian Bittern (e,1A); Black Falcon (e,3A); Brolga (v,1B); Eastern Barred Bandicoot (Ecen,1A); Fat-tailed Dunnart (dd, NR); Great Egret (e,4A).



Australasian Bittern  
(Photo: Peter Menkhorst)

## 7. Lake Goldsmith Landscape Zone

### 7.3 Private Land (cont'd)

#### **Recommended actions:**

#### **Protection of existing remnants:**

- Identify remnants of high conservation and strategic significance, focusing on those that support native grassland, stony knoll and wetland EVCs. Determine priorities for protection of remnants and apply covenants, voluntary programs, incentives and/or planning controls, as appropriate, to protect these blocks.
- Adhere strictly to native vegetation retention controls, particularly where habitat exists for threatened fauna and flora.

**Management to enhance remnants for threatened taxa** (BNA response level in brackets: 4 = full commitment, 3 = substantive participation, 2 = opportunistic action, 1 = watching brief):

- Manage stock grazing in native grasslands to benefit Western Basalt Plains Grassland, Small Milkwort (4), Clover Glycine (3), Derrinallum Billy-buttons (2), Spiny Rice-flower (3), Adamson's Blown-grass (3), Small Golden Moths (4), Hairy Tails and Gilgai Blown-grass (3).
- Control weeds to benefit Western Basalt Plains Grassland, Gilgai Blown-grass (3), Derrinallum Billy-buttons (2), Spiny Rice-flower (3), Small Golden Moths (4), Hairy Tails and Small Milkwort (4).
- Trial ecological burns to benefit Western Basalt Plains Grassland, Small Golden Moths (4), Hairy Tails and Spiny Rice-flower (3).
- Implement control programs for cats and foxes, giving priority to known or potential habitat sites of Eastern Barred Bandicoot (4), Great Egret (2), Australasian Bittern (4) and Brolga (3).
- Control rabbits to benefit Eastern Barred Bandicoot (4) and Australasian Bittern (4).
- Control and exclude where required stock grazing on wetlands and wetland margins to benefit Great Egret (2), Australasian Bittern (4) and Brolga (3).
- Enhance quality and quantity of water flows to wetlands to benefit Great Egret (2), Australasian Bittern (4) and Brolga (3).
- Prevent human disturbance at roosting, nesting and breeding sites to benefit Australasian Bittern (4).
- Reduce herbicide and pesticide use to benefit Black Falcon (3).
- Conduct ecological burns to benefit Black Falcon (3).
- Control hunting (especially the use of lead shot) to benefit Brolga (3).
- Provide information to landholders to benefit Brolga (3).



European Rabbit  
(Photo: Viridans  
Biological Databases)



Great Egret (Photo:  
Viridans Biological  
Databases)

## 7. Lake Goldsmith Landscape Zone

### 7.3 Private Land (cont'd)

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#### **Restoration of strategic vegetation blocks or linkages:**

- Establish Adamson's Blown-grass into suitable secure habitat.
- Supplement habitat to benefit Black Falcon.
- Relocate Eastern Barred Bandicoot to suitable secure sites as required under the Recovery Plan (Watson & Halley 1999).
- Aim to increase patch size and connectivity on sites where landholders are agreeable. Provide assistance with fencing and other management strategies on restoration areas.
- Use LFW program, Landcare, and other programs as appropriate, to encourage and assist landholders to restore and expand native vegetation cover and wetlands, using fencing, grazing exclusion, weed control, erosion control, reseeding, replanting and regeneration.
- Develop programs to restore and enhance grassland, riparian and wetland vegetation (especially in areas adjoining the Mount Emu Creek) and create habitat links between existing areas of wetland and native vegetation on public and private land.
- Develop a Conservation Management Network, embracing sites from Lake Goldsmith to Banongill and Mount Emu Creek.
- Assist with conservation programs on *Mooramong*.

#### **OTHER POLICIES, PLANS OR PROGRAMS** supporting one or more of the recommended actions:

- Recovery Plan & FFG Action Statement – Eastern Barred Bandicoot (4).
- FFG Action Statement – Small Milkwort (96).
- FFG Action Statement – Adamson's Blown-grass (101).
- FFG Action Statement – Western Basalt Plains Grassland (53).
- CAMBA – Great Egret.

## 7. Lake Goldsmith Landscape Zone

### 7.4 Other Public Land

#### **Land tenure details:**

Generally all public land where conservation is not the primary management objective. Significant areas include Yalla-y-poorra RecR, Middle Creek RR, Western Highway, PLWF (Mt Emu Creek, Fiery Creek, Broken Creek).

#### **Land Manager:**

DSE, DPI, PTC, VR, VCM

#### **Stakeholders:**

Key DSE, DPI, Private, CMA, LGA, LC

Others TSN, BG, GNP, FNC, VFGA.

**Threatened Biodiversity Assets** (in brackets: Cons status Vic - lower case, Aust - upper case; followed by BNA priority / risk rankings for threatened taxa = 1A, 2B, etc., or un - unassessed):

**EVCs:** Plains Grassy Woodland (e); Plains Grassland/Plains Grassy Woodland Mosaic (e); Riparian Woodland (e); Creekline Grassy Woodland (e); Heathy Dry Forest (d).

**Threatened flora:** Basalt Podolepis (e,NR); Button Wrinklewort (Ee,1A); Golden Cowslips (v,1A); Hairy Tails (I,NR); Spiny Rice-flower (Ve,1A).



*Pimelea spinescens* ssp. *spinescens* (Photo: Steve Mueck)

**Threatened fauna:** None recorded.

#### **Recommended actions:**

##### **Protection of existing remnants:**

- Signpost Middle Creek RR.
- Develop PAMA to protect Western Basalt Plains Grassland and populations of Button Wrinklewort, Spiny Rice-flower, Small Milkwort and other threatened species at Middle Creek RR (Humphries & Webster 1992).
- Review habitat values and status of public land.
- Monitor and protect areas supporting threatened EVCs, flora and fauna.
- Assess status and condition of water frontages and rail reserves, especially with respect to grazing, fencing and weed control requirements. Implement measures to provide maximum protection for existing values, excluding or reducing grazing wherever possible.

## 7. Lake Goldsmith Landscape Zone

### 7.4 Other Public Land (cont'd)

**Management to enhance remnants for threatened taxa** (BNA response level in brackets: 4 = full commitment, 3 = substantive participation, 2 = opportunistic action, 1 = watching brief):

- Exclude grazing from Middle Creek RR to benefit Western Basalt Plains Grassland, Button Wrinklewort (4).
- Control weeds to benefit Western Basalt Plains Grassland, Golden Cowslips (4), Hairy Tails and Spiny Rice-flower (4).
- Control introduced herbivores to benefit Button Wrinklewort (4).
- Conduct ecological burns to benefit Western Basalt Plains Grassland, Button Wrinklewort (4), Golden Cowslips (4), Hairy Tails and Spiny Rice-flower (4).



*Diuris behrii* (Photo: Viridans Biological Databases)

#### **Restoration of strategic vegetation blocks or linkages:**

- Seek opportunities (with Shire, adjoining land managers and local landholders) to expand size and connectivity of remnant vegetation on public land through sympathetic management on adjoining areas. Particular emphasis should be given to riparian and wetland areas.
- Restore and enhance riparian areas (especially Fiery Creek and Mt Emu Creek) and wetland fringes through revegetation programs in cooperation with adjoining landholders.

**OTHER POLICIES, PLANS OR PROGRAMS** supporting one or more of the recommended actions:

- Recovery Plan & FFG Action Statement – Button Wrinklewort (28).
- FFG Action Statement – Western Basalt Plains Grassland (53).

## 7. Lake Goldsmith Landscape Zone

### 7.5 Local Government

#### **Land tenure details:**

Includes all land for which Local Government has responsibility: typically roadsides, township land and, generally, cemeteries. Areas that support highly significant native vegetation include Skipton Common, Mt William Rd, Carngham-Streatham Rd and Yalla-y-poorra Roadside.

#### **Land Manager:**

LGA, VCM

#### **Stakeholders:**

Key DSE, DPI, Private, CMA, CFA

Others BG, LFW, GAV, FNC, RCAC, LC.

**Threatened Biodiversity Assets** (in brackets: Cons status Vic - lower case, Aust - upper case; followed by BNA priority / risk rankings for threatened taxa = 1A, 2B, etc., or un - unassessed):

**EVCs:** Plains Grassland/Plains Grassy Woodland Mosaic (e); Plains Grassy Wetland (e); Stony Rises Herb-rich Woodland (v).

**Threatened flora:** Clover Glycine (Vv,1B); Hairy Tails (I,NR); Small Milkwort (v,2A); Swamp Billy-buttons (v,NR).



*Ptilotus erubescens* (Photo: John Eichler)

**Threatened fauna:** None recorded.

#### **Recommended actions:**

##### **Protection of existing remnants:**

- Identify native vegetation on roadsides and other local government managed land.
- Signpost all road reserves supporting threatened EVCs and threatened species such as Small Milkwort, Clover Glycine and Swamp Billy-buttons.
- Develop PAMAs to protect Western Basalt Plains Grassland and threatened flora populations occurring on road reserves (McDougall et al 1993).
- Instruct Shire staff on locations and importance of roadside remnants.
- Exclude grazing and cultivation from all roadsides supporting remnant native vegetation.



*Craspedia paludicola*  
(Photo: Viridans Biological Databases)

## 7. Lake Goldsmith Landscape Zone

### 7.5 Local Government (cont'd)

**Management to enhance remnants for threatened taxa** (BNA response level in brackets: 4 = full commitment, 3 = substantive participation, 2 = opportunistic action, 1 = watching brief):

- Exclude stock grazing on roadsides and manage grazing on other areas that have been traditionally grazed to benefit Western Basalt Plains Grassland, Small Milkwort (3) and Hairy Tails.
- Control weeds to benefit Western Basalt Plains Grassland, Small Milkwort (3), Hairy Tails and Clover Glycine (3).
- Conduct ecological burns to benefit Western Basalt Plains Grassland, Small Milkwort (3), Hairy Tails and Clover Glycine (3).



*Comesperma polygaloides*  
(Photo: John Eichler)

#### **Restoration of strategic vegetation blocks or linkages:**

- Identify suitable habitat for threatened species and expand habitat through sympathetic management on adjoining land. See k to manage all r emnant vegetation on local government land for conservation and expand areas within recreation and other reserves.
- Encourage adjoining landholders or land managers to undertake complementary restoration works on freehold or other land, pr eferably in t he context of local landscape plans.

**OTHER POLICIES, PLANS OR PROGRAMS** supporting one o r more of the recommended actions:

- FFG Action Statement – Western Basalt Plains Grassland (53).
- FFG Action Statement – Small Milkwort (96).

## 7. Lake Goldsmith Landscape Zone

### 7.6 Parks and Reserves

#### **Land tenure details:**

Lake Goldsmith WR (C6,935ha); Black Lake WR (C5,79ha); Lake Wongan WR (C4,243ha); Salt Lake WR, (C3,23ha); Woodnaggarak BR (H7,6ha); Fiery Creek SSR (2) (J1,5ha); Blacks Creek (proposed new reserve,210ha). A total of 1,291ha occur within conservation reserves in this zone.

#### **Land Manager:**

Parks Victoria

#### **Stakeholders:**

Key DSE, DPI, CMA

Others ECC, TSN, GNP, FNC, FG.

**Threatened Biodiversity Assets** (in brackets: Cons status Vic - lower case, Aust - upper case; followed by BNA priority / risk rankings for threatened taxa = 1A, 2B, etc., or un - unassessed):

**EVCs:** Plains Grassland/Plains Grassy Woodland Mosaic (e); Alluvial Terraces Herb-rich Woodland/Plains Grassy Woodland Complex (e); Saline Lake Verge Hermland/Shrubland (e); Saline Lake Mosaic (e); Aquatic Hermland/Plains Sedgy Wetland Mosaic (e); Stony Rise Herb-rich Woodland (v).

**Threatened flora:** Adamson's Blown-grass (Ev,3B); Button Wrinklewort (Ee,3A); Clover Glycine (Vv,2B); Gilgai Blown-grass (v,3C); Large River-buttercup (k,NR); Pale Swamp Everlasting (v,NR); Salt-lake Tussock-grass (v,1A); Small Milkwort (v,1A); Spiny Pepper-cress (Ve,1A).



*Comesperma polygaloides*  
(Photo: John Eichler)

**Threatened fauna:** Brolga (v,3B); Cape Barren Goose (v,1B); Eastern Barred Bandicoot (Ecen,1A); Freckled Duck (e,1A); Gull-billed Tern (e,1A).



Gull-billed Tern  
(Photo: Mike Carter)

#### **Recommended actions:**

##### **Protection of existing remnants:**

- Develop and implement management plans for conservation reserves.
- Monitor Spiny Pepper-cress and Salt-lake Tussock-grass at Lake Goldsmith WR.
- Monitor Button Wrinklewort at Woodnaggarak BR.
- Assess status and biodiversity values of public land, and determine priorities for upgrading status or other protection. Give particular emphasis to areas that support endangered EVCs.
- Ensure all conservation reserves are adequately fenced and signposted.

## 7. Lake Goldsmith Landscape Zone

### 7.6 Parks and Reserves (cont'd)

**Management to enhance remnants for threatened taxa** (BNA response level in brackets: 4 = full commitment, 3 = substantive participation, 2 = opportunistic action, 1 = watching brief):

- Manage grazing to benefit Adamson's Blown-grass (1), Gilgai Blown-grass (1), Small Milkwort (4) and Western Basalt Plains Grassland.
- Control and exclude where required stock grazing on wetlands and wetland margins to benefit Spiny Pepper-cress (4), Salt-lake Tussock-grass (4), Cape Barren Goose (3), Freckled Duck (4), Gull-billed Tern (4) and Brolga (1).
- Control weeds to benefit Western Basalt Plains Grassland, Small Milkwort (4), Salt-lake Tussock-grass (4) and Clover Glycine (2).
- Control rabbits to benefit Eastern Barred Bandicoot (4) and Salt-lake Tussock-grass (4).
- Conduct ecological burns to benefit Western Basalt Plains Grassland, Clover Glycine (2) and Button Wrinklewort (3).
- Implement control programs for introduced predators, giving priority to known or potential habitat sites of Eastern Barred Bandicoot (4), Brolga (1), Freckled Duck (4), Gull-billed Tern (4) and Cape Barren Goose (3).
- Enhance quantity of water flows to benefit Brolga (1).
- Enhance quantity and quality of water flows to benefit Freckled Duck (4) and Gull-billed Tern (4).
- Control hunting (especially the use of lead shot) to benefit Freckled Duck (4), Blue-billed Duck (3) and Cape Barren Goose (3).
- Control human disturbance at roosting, nesting and breeding sites to benefit Gull-billed Tern (4).



Eastern Barred Bandicoot  
(Photo: DSE/McCann)

#### Restoration of strategic vegetation blocks or linkages:

- Reinforce populations of Small Milkwort.
- Establish populations of Button Wrinklewort in suitable secure habitat.
- Relocate and reintroduce Eastern Barred Bandicoot to suitable secure sites as required under the Recovery Plan (Watson & Halley 1999).
- Seek opportunities (with Shire, adjoining land managers and local landholders) to expand size and connectivity of remnant vegetation on public land through sympathetic management on adjoining areas. Particular emphasis should be given to riparian and wetland areas.
- Restore margins of public land wetlands and riparian zones through revegetation programs.



*Rutidosis leptorhynchoides*  
(Photo: John Eichler)

## **7. Lake Goldsmith Landscape Zone**

### **7.6 Parks and Reserves (cont'd)**

**OTHER POLICIES, PLANS OR PROGRAMS** supporting one or more of the recommended actions:

- Recovery Plan & FFG Action Statement – Eastern Barred Bandicoot (4).
- Recovery Plan & FFG Action Statement – Button Wrinklewort (28).
- FFG Action Statement – Freckled Duck (105).
- FFG Action Statement – Small Milkwort (96).
- FFG Action Statement – Spiny Pepper-cress (111).
- FFG Action Statement – Adamson's Blown-grass (101).
- FFG Action Statement – Predation by Red Fox (44).
- FFG Action Statement – Predation by Cat (80).
- FFG Action Statement – Western Basalt Plains Grassland (53).