

WEST BELCONNEN ACT PARKWOOD LAND FLORA AND FAUNA ASSESSMENT

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1. INTRODUCTION

The West Belconnen Project Area covers a large area to the west of Belconnen and extends across the border into New South Wales. The ecological values of that area have been described in the reports referred to in the bibliography. The land in the far north-eastern part of the West Belconnen Project Area has not been investigated in detail to date. This report addresses this omission by providing an ecological description and assessment of the land and its biota.

The study area, referred to here as the Parkwood Lands, is shown in **Figures 1 and 2**.

2. THE STUDY AREA

The study area is that land between the landfill site in the west, the ACT-NSW border in the north, Parkwood Road in the south and the suburb of West Macgregor in the east. The study area is that area of land in the far north-eastern corner of the wider West Belconnen Project Area, as shown on Figure 1 and 2. The land encompasses Blocks included: 1329, 1621, 1622, 853, 1540, 856, 858, 859, 1333, 1440 and Part S149. The land has an area of 172.9 hectares.

The land is generally level to gently sloping and drained by Ginninderra Creek in the far north and its tributary running south to north across the eastern part of the site.

3. METHODS

The study area as divided into five zones, as employed in the study by Rowell (2013); these are numbered 6, 7 8, 9 and 8a, the latter an un-numbered area in the Rowell study; see **Figure 3**.

With a colour aerial photograph and the above map in hand, the area was traversed on foot, targeting areas that could support native grasslands or habitat for native plants and animals. The perimeter of the land was traversed by vehicle. Visits were made on 25 and 26 November 2013.

Lists of the plants (native and exotic) and vertebrate animals observed were compiled during the field surveys. Notes were taken of the type of vegetation present in the various paddocks in the area. Particular attention was given to locating native grassland; i.e. grassland dominated by native plant species.

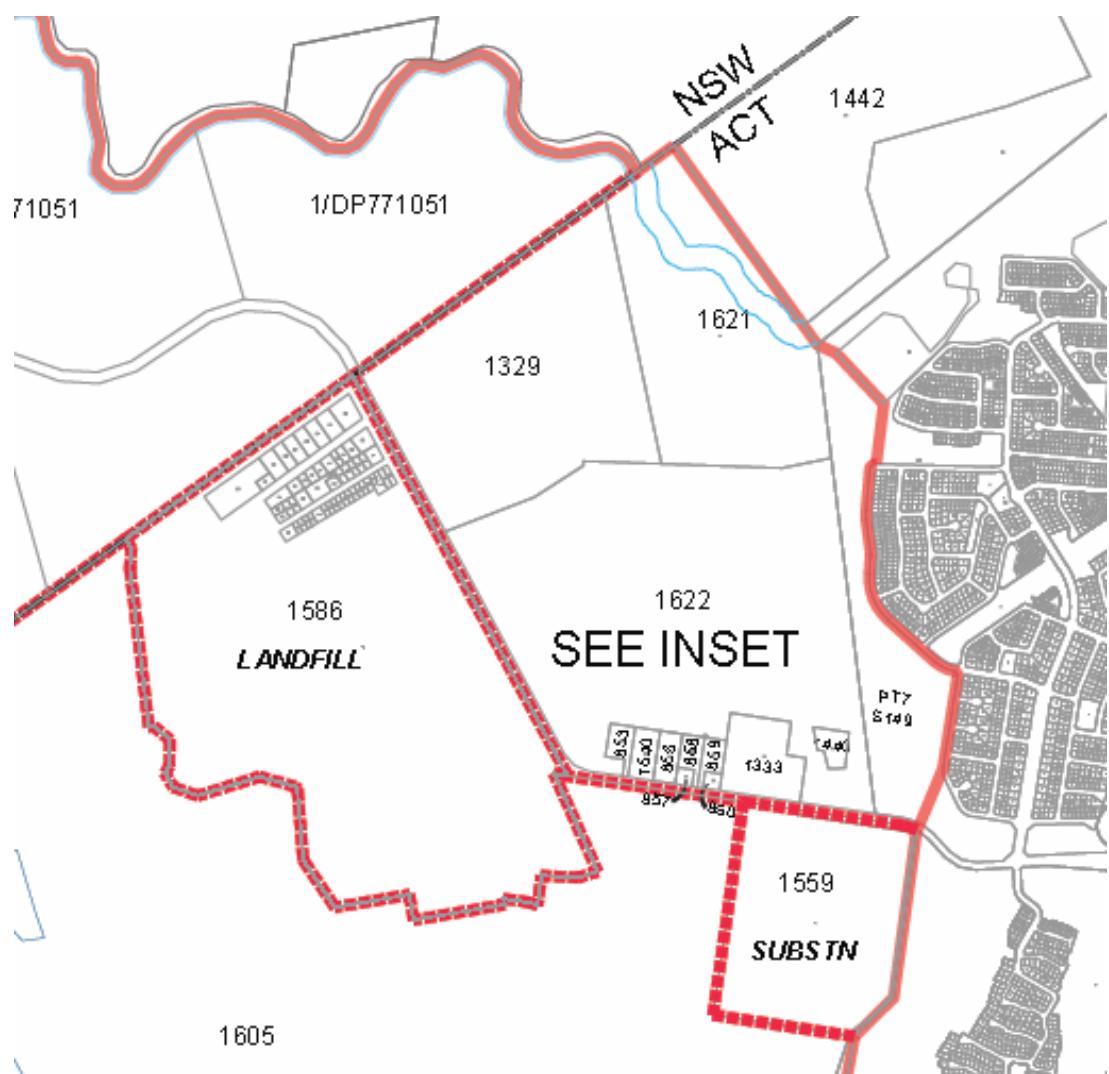


Figure 1. Location of the Study Area

Blocks included: 1329, 1621, 1622, 853, 1540, 856, 858, 859, 1333, 1440 and Part S149.



Figure 2. Aerial photograph of the Parkwood land.
The study area is bordered in pink.

4. RESULTS OF FIELD INVESTIGATIONS

The grassland covering the study area was found to be mostly exotic; i.e. dominated by introduced and naturalised herbaceous plants. Perennial and annual plants are present. The common exotics are *Phalaris*, *Avena* and *Bromus* species. Native plants are quite rare across the majority of the study area, although common native perennial grasses are common in a few places.

Native grassland was found to be restricted to small patches on the banks of the southern tributary of Ginninderra Creek (see **Photograph 1**) and along Ginninderra Creek and a low ridge nearby in the southern part of zone 6. These areas are dominated by *Austrostipa* spp. and *Austrodanthonia* spp. and generally cover small areas, with individual patches containing only a few native species. The low slope east of Ginninderra Creek supports native grass species along with a few other natives but no high quality native grassland. As noted by Rowell (2013), the Pony Club paddock supports native grasses, but is of very low quality. The land near the new housing in West Macgregor is mown and there are detention basins along the creek nearby (zone 8a)

Trees are restricted almost entirely to planted stands of local naives and exotics. Area 9, the Parkwood Eggs site, is particularly well treed, while other plantings' occur around the Belconnen Pony Club facilities and along Parkwood Drive. A line of *Pinus radiata* occurs near West Macgregor. A small amount of native wetland vegetation occurs around the detention basins below West Macgregor and occasionally along the two watercourses.

A list of all plants recorded is provided in **Appendix 1**; not all planted trees and shrubs are recorded. A small number of vertebrate animals was recorded and are listed in **Appendix 2**; a more complete list is provided in the report by KMA (2013).



Photograph 1. *Austrostipa scabra* grassland near eastern watercourse
(brownish areas in foreground and mid ground).



Photograph 2. Ginninderra Creek, in the far north-eastern part of the study area.

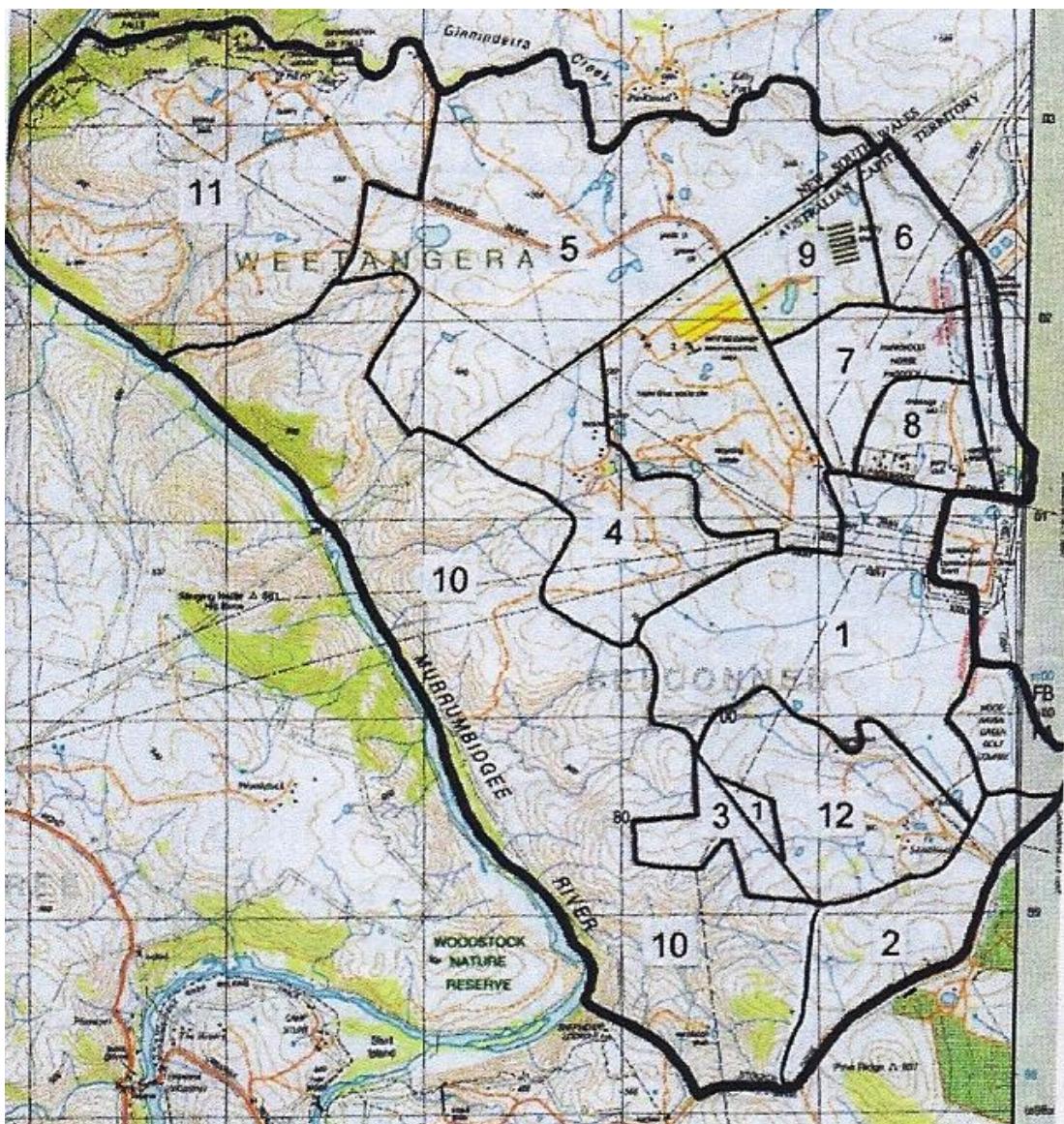


Figure 3. Map of surveys zones from Rowell (2013).

The current study area covers zones 6 to 9.

5. CONSERVATION ASSESSMENT

The potential conservation issues in the locality were canvassed in the reports prepared for the West Belconnen project area; see Bibliography. An investigation of the Golden Sun moth by Rowell (2013) covered nearly all of the current study area. The following is an assessment of each of the features of conservation importance identified in the wider West Belconnen area.

Woodland and derived grassland

The small areas of native grassland of low species diversity do not meet the minimum criteria as the above community as described by the Commonwealth and the ACT.

Golden Sun Moth

We concur with the report by Rowell (2013) that concluded that no areas contained habitat likely to be important for the Golden Sun Moth (GSM). The following extracts from her report are relevant to this current study area.

“There were areas of very low to low quality potential habitat in cleared parts of Area 1 and in Area 12 (clearings in woodland), and along Ginninderra Creek in Area 6 (creek flats with a high component of Chilean Needlegrass).”

“A similar higher quality patch was found in Area 6 on the eastern bank above Ginninderra Creek in Block 1621.”

“The Pony Club paddock in Area 8 was dominated by native Speargrasses and Wallaby Grasses, with a moderate amount of bare ground and low to moderate weed cover. The low biomass, very low native species diversity and predominance of grazing-tolerant species suggested a long history of grazing and probably some overgrazing, so the habitat in this paddock was given a low rather than moderate habitat quality rating [for the GSM].”

“The Wallaby Grasses in the lowest quality habitat areas (in Areas 1, 4, 5 and 8) were mostly those that persist in grazed native pastures, such as *Austrodanthonia caespitosa* and *A. racemosa*. The more diverse ground layer found in parts of the Area 12 woodland, the moderate quality patch in Area 4 and the slope above Ginninderra Creek in Area 6 contained a larger variety of Wallaby Grasses, including. These included *A. eriantha* and *A. laevis*, as well as some smaller species often lost when sites are disturbed or pasture improved, such as *A. carphoides* and *A. auriculata*.”

“No GSM were recorded on the site, despite repeated surveys of potential habitat under suitable weather conditions, and during the period when there were many records of GSM activity in the north of the ACT and adjacent parts of NSW. No pupal

cases were found in ground searches of the better quality potential habitat in December [2012] and January [2013]."

"There are previous records of GSM from the Ginninderra Creek flats in Block 1621, Area 6 (Biosis 2010), but none were seen there in 2012. This area was dominated by tall dense Phalaris and Chilean Needlegrass and had not been recently grazed at the time of the surveys. GSM were recorded several times at a similar (but grazed) site 1.5 km to the east in the 2012 season, including one week before and two weeks after our surveys (Bill Sea, University of Canberra, pers. comm.)."

A summary of the results obtained by Rowell (2013) are reproduced for the current study area in **Appendix 3**.

A survey of the native grassland areas on 25 November 2013, on a day when the GSM was flying on a site north of Belconnen, failed to find the moth. It is still possible that the above area near Ginninderra Creek contains the GSM. This area would probably be within the riparian corridor that is likely to be established along the creek in future.

Aprasia parapulchella

There is no suitable habitat for this lizard in the study area, which is common on rocky country near the Murrumbidgee River.

Woodland Birds

Threatened woodland birds may occur incidentally in the study area from time to time, but there is no important habitat for such species in the area. The planted native trees provide some marginal habitat for these birds.

6. CONCLUSION

A field survey of the Parkwood Lands at West Belconnen found that the majority of the area supports exotic grassland of very low conservation importance. Small patches of *Austrostipa* and *Austrodanthonia* native grassland occur near the creeks in the east (zone 7) and in the far northeast (zone 6). These areas are small and of very low native plant species diversity and have very little value as habitat for native biota, although the GSM was previously recorded near Ginninderra Creek. Planted native and exotic trees occur in various places and have some habitat value.

The surveys found no features of importance to listed species or communities in the study area, other than some patches of native grassland that may contain the GSM. There are no serious ecological constraints to development within the study area, although the Ginninderra Creek corridor deserves consideration in future land use planning.

Recommendations

- (1) A riparian corridor should be established along Ginninderra Creek within which development is excluded and rehabilitation of native vegetation is established over time.
- (2) The southern tributary of Ginninderra Creek should likewise be treated as a minor riparian corridor.
- (3) The native tree plantings have some value as habitat and should be incorporated into future land use if practical.

7. BIBLIOGRAPHY

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Rowell A. (2013). West Belconnen Golden Sun Moth Surveys, October to December 2012. Prepared for The Riverview Group, Canberra, May.

APPENDIX 1

LIST OF PLANT SPECIES

<i>Asperula conferta</i>	Common Woodruff
<i>Austrodanthonia auriculata</i>	Wallaby Grass
<i>Austrodanthonia caespitosa</i>	Wallaby Grass
<i>Austrodanthonia carphoides</i>	Short Wallaby Grass
<i>Austrodanthonia eriantha</i>	Wallaby Grass
<i>Austrodanthonia laevis</i>	Wallaby Grass
<i>Austrodanthonia racemosa</i>	Wallaby Grass
<i>Bothriochloa macra</i>	Red-leg Grass
<i>Chamaesyce drummondii</i>	Caustic Creeper
<i>Chrysocephalum apiculatum</i>	Common Everlasting
<i>Cynodon dactylon</i>	Couch Grass
<i>Eleocharis acuta</i>	Common Spike-rush
<i>Elymus scaber</i>	Wheatgrass
<i>Epilobium billardierianum</i>	Willowherb
<i>Geranium solanderi</i>	Native Geranium
<i>Goodenia pinnatifida</i>	Scrambled Eggs
<i>Juncus</i> sp.	Rush
<i>Panicum effusum</i>	Hairy Panic
<i>Paspalum distichum</i>	Water Couch
<i>Phragmites australis</i>	Common Reed
<i>Poa labillardieri</i>	River Tussock
<i>Poa sieberiana</i>	Poa Tussock
<i>Potamogeton tricarinatus</i>	Floating Pondweed
<i>Typha orientalis</i>	Cumbungi
<i>Wahlenbergia communis</i>	Tufted Bluebell
* <i>Acetosella vulgaris</i>	Sheep Sorrel
* <i>Arctotheca calendula</i>	Capeweed
* <i>Avena</i> sp.	Oats
* <i>Bromus cartharticus</i>	Prairie Grass
* <i>Bromus diandrus</i>	Great Brome
* <i>Bromus hordeaceus</i>	Soft Brome
* <i>Carthamus lanatus</i>	Saffron Thistle
* <i>Carthamus lanatus</i>	Saffron Thistle
* <i>Cerastium fontanum</i>	Mouse-ear Chickweed
* <i>Chondrilla juncea</i>	Skeleton Weed
* <i>Cirsium vulgare</i>	Spear Thistle
* <i>Conyza</i> sp.	Fleabane
* <i>Crataegus monogyna</i>	Hawthorn
* <i>Cyperus eragrostis</i>	Umbrella Sedge

* <i>Dactylis glomerata</i>	Cocksfoot
* <i>Echium plantagineum</i>	Paterson's Curse
* <i>Hirschfeldia incana</i>	Hairy Brassica
* <i>Holcus lanatus</i>	Yorkshire Fog
* <i>Hordeum</i> sp.	Barley Grasses
* <i>Hypericum perforatum</i>	St John's Wort
* <i>Hypochaeris glabra</i>	Smooth Flatweed
* <i>Hypochaeris radicata</i>	Flatweed
* <i>Lactuca serriola</i>	Prickly Lettuce
* <i>Lolium</i> sp.	Ryegrass
* <i>Melilotus</i> sp.	Melilot
* <i>Nassella neesiana</i>	Chilean Needlegrass
* <i>Nassella trichotoma</i>	Serrated Tussock
* <i>Paronychia brasiliensis</i>	Chilean Whitlow Wort
* <i>Paspalum dilatatum</i>	Paspalum
* <i>Phalaris aquatica</i>	Phalaris
* <i>Pinus radiata</i>	Radiata Pine
* <i>Plantago lanceolata</i>	Ribbed Plantain
* <i>Polygonum aviculare</i>	Wireweed
* <i>Pyracantha</i> sp.	Fire Thorn
* <i>Rosa rubiginosa</i>	Sweet Briar
* <i>Rubus fruticosus</i> sp. agg.	Blackberry
* <i>Salix babylonica</i>	Weeping Willow
* <i>Salix</i> sp.	Willow
* <i>Salvia verbenaca</i>	Wild Sage
* <i>Sanguisorba minor</i>	Sheep's Burnet
* <i>Silybum marianum</i>	Variegated Thistle
* <i>Sonchus asper</i> subsp. <i>glaucescens</i>	Prickly Sowthistle
* <i>Trifolium arvense</i>	Haresfoot Clover
* <i>Trifolium pratense</i>	Narrow-leaf Clover
* <i>Trifolium pratense</i>	Narrow-leaf Clover
* <i>Trifolium dubium</i>	Yellow Suckling Clover
* <i>Trifolium repens</i>	White Clover
* <i>Verbascum thapsus</i>	Great Mullein
* <i>Vulpia</i> sp.	Fescue
* <i>Xanthium spinosum</i>	Bathurst Burr

* Introduced species.

APPENDIX 2

LIST OF ANIMAL SPECIES

Australian Magpie	<i>Gymnorhina tibicen</i>
Australian Raven	<i>Corvus coronoides</i>
Common Starling*	<i>Sturnus vulgaris</i>
Crested Pigeon	<i>Ocyphaps lophotes</i>
Dusky Woodswallow	<i>Artamus cyanopterus</i>
Galah	<i>Cacatua roseicapilla</i>
House Sparrow*	<i>Passer domesticus</i>
Magpie-lark	<i>Grallina cyanoleuca</i>
Pacific Black Duck	<i>Anas superciliosa</i>
Pied Currawong	<i>Strepera graculina</i>
Red Wattlebird	<i>Anthochaera carunculata</i>
Red-rumped Parrot	<i>Psephotus haematonotus</i>
Sulphur-crested Cockatoo	<i>Cacatua galerita</i>
Superb Fairy-wren	<i>Malurus cyaneus</i>
Welcome Swallow	<i>Hirundo neoxena</i>
White-browed Woodswallow	<i>Artamus superciliosus</i>
White-necked Heron	<i>Ardea pacifica</i>
Willie Wagtail	<i>Rhipidura leucophrys</i>
Eastern Grey Kangaroo	<i>Macropus giganteus</i>

* Introduced species.

Appendix 3

Summary of Golden Sun Moth survey results in Western Belconnen, Oct-Dec 2012. Extract from Rowell (2013).

Area	Date	Potential habitat	GSM notes
6	19 December 21 December	Most of area ungrazed improved pasture (<i>Phalaris</i>). Very low to moderate quality known habitat in paddock each side of Ginninderra Ck. Creek flats exotic but contain Chilean Needlegrass, parts of eastern bank dominated by native grasses.	No GSM observed. Visited twice under suitable survey conditions. GSM records from creek paddock (2009 survey).
7	13 December 19 December	No potential habitat, grazed and ungrazed improved pasture.	No GSM observed.
8	13 December 19 December 22 December	Small area low quality potential habitat at Pony Club. Paddock dominated by native Speargrasses and Wallaby Grasses, not pasture improved. Very low diversity and species composition suggests long history of grazing and occasional overgrazing.	No GSM observed. Potential habitat searched twice on foot under suitable conditions, extensive search for pupal cases also made late in season.
9 Park-wood	29 November 13 December 19 December	No potential habitat seen. Observed with binoculars from outside fences to east, south and west.	No GSM observed.