

FINAL Report

**Baseline Vegetation, and Golden Sun Moth *Synemon plana*
Population and Habitat Quality Summary (2015/2016),
Warrambeen Group 3, Areas B1, B2 & E, (Woolly and Creek
Paddocks), Shelford, Victoria**

Prepared for

Warrambeen Demonstration Landcare Farm

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Ecology and Heritage Partners Pty Ltd

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1 INTRODUCTION

1.1 Background

Ecology and Heritage Partners Pty Ltd was engaged by Warrambeen Demonstration Landcare Farm to compile baseline vegetation, and Golden Sun Moth *Synemon plana* population and habitat quality for Year 1 (2015/2016) for the Warrambeen Group 3, Areas B1, B2 & E, (Woolly and Creek Paddocks), Shelford, Victoria. The requirement for Golden Sun Moth offsets was associated with the construction of the Rosenthal Estate, 100 Vineyard Road, Sunbury, Victoria (Ecology and Heritage Partners Pty Ltd 2015).

An *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) referral (EPBC 2008/4214) was submitted on 21 April 2008, and was deemed a controlled action, as the proposed development was considered likely to have a significant impact on a Matter of National Environmental Significance (Golden Sun Moth). Further information in the form of Preliminary Documentation was requested by the Commonwealth on 11 July 2008. Preliminary documentation was supplied and exhibited from 8-9 May 2014. A 'decision on approval' notice was then issued by the Commonwealth Department of the Environment (DoE) on 7 July 2014 outlining the final conditions of approval.

Note: the Rosenthal Estate development area contains grassland vegetation that meets the condition thresholds to qualify as the nationally significant ecological community *Natural Temperate Grassland of the Victorian Volcanic Plain* (NTGVVP). However, this vegetation has been deemed exempt from all offset requirements, as an agreement has been reached between the proponent, the Department of Environment, Land, Water and Planning (DELWP) and DoE regarding the presence and historical context of NTGVVP within the study area. In their referral assessment letter dated 11 July 2008, the Commonwealth department states that because NTGVVP was listed as a critically endangered community under the EPBC Act on 21 June 2008 (two months after the EPBC Act referral for the site) the vegetation community did not be considered as part of the assessment process at the Federal level.

The offset requirements were set under the EPBC Act for the removal of 42.27 hectares of Golden Sun Moth habitat from the Rosenthal Estate. A total of 86.0 hectares of Golden Sun Moth habitat is to be protected within the Warrambeen Group 2, Areas B1, B2 & E offset site as part of the offset requirements for the Rosenthal Estate.

With regard to State offsets, although the Biodiversity Assessment Guidelines (the 'Guidelines') (DEPI 2013a) have now replaced the former Victoria's Native Vegetation Management: A Framework for Action (the 'Framework') (NRE 2002), all offset calculations within this OMP have been treated under the Framework in accord with Scenario 6 of the Transition Guidelines (DEPI 2013b). This State offset strategy has been identified and endorsed by all stakeholders, including the City of Hume and DELWP, as a valid pathway to fulfil offset obligations, especially given the current uncertainty and availability of specific offsets under the Guidelines and the associated vegetation credit trading system. As per the OMP, only Area B1 is required to be protected and managed to satisfy the offset requirements under the Framework for removal of remnant vegetation within the Rosenthal Estate.

Vegetation and Golden Sun Moth population and habitat monitoring will be undertaken in accordance with Section 5.5 of the endorsed Offset Management Plan (OMP) (Ecology and Heritage Partner Pty Ltd 2015). The following report outlines the baseline results which will provide future targets over subsequent years for the ongoing monitoring and management within the Rosenthal offset site.

1.2 Study Area

The study area (which encompasses the offset site) is located within the Woolly and Creek Paddocks within the Warrambeen Demonstration Landcare Farm, approximately 60 kilometres northwest of Geelong (Figure 1). The study area includes areas known as Group 3 Areas B & E which cover a total of 86.0 hectares (Figure 2). The Warrambeen Demonstration Landcare Farm is privately owned and supports extensive areas of remnant native grassland.

The Warrambeen property has in recent history been used for wool production and substantial parts of the property have never been improved with fertilisers or cleared of embedded and scattered rock. Large tracts of remnant vegetation therefore persist throughout the property.

According to the Department of Environment, Water, Land and Planning (DEWLP) Biodiversity Interactive Map (DEWLP 2015), the study area occurs within the Victorian Volcanic Plain Bioregion. It is located within the jurisdiction of the Corangamite Catchment Management Authority (CMA) and the Golden Plains municipality (DEWLP 2015).

1.3 Golden Sun Moth

EPBC Act Conservation Status: Critically Endangered

FFG Act Conservation Status: Listed

DEPI Advisory List: Endangered

The Golden Sun Moth typically occurs in native grassland and grassy woodland, dominated by greater than 40% cover of indigenous grasses, in particular Wallaby-grass *Rytidosperma* spp. (DSE 2004). However, they may also inhabit areas dominated by Kangaroo Grass *Themeda triandra* (Endersby and Koehler 2006) and introduced grassland dominated by Chilean Needle-grass *Nassella neesiana* and other introduced species (A. Taylor pers. obs.). Male flight is typically low, to about a metre above the ground, fast and can be prolonged, but they are generally not recorded flying more than 100 metres from suitable habitat (Clarke and O'Dwyer 1999).

Prior to European settlement, the Golden Sun Moth was widespread and relatively continuous throughout its range, inhabiting grassy open woodlands and grassland, although it now mainly inhabits small isolated sites (DSE 2004). The species is threatened by habitat loss, disturbance and fragmentation due to agricultural expansion and urbanisation. Many populations are isolated and fragmented, impeding the ability of the relatively immobile females to recolonise areas, thereby reducing the likelihood of genetic exchange (DSE 2004). Such populations are therefore vulnerable as there is little likelihood of recolonisation in the event of a local extinction.

2 METHODS

2.1 Vegetation Baseline Data

Baseline data for the required remnant vegetation gains has been extracted from the endorsed OMP to measure improvements within the area known as Group 3 Area B1 in vegetation quality over the 10 year management timeframe (Ecology and Heritage Partners Pty Ltd 2015). Information relating to baseline vegetation quality is summarised in Table 1 below.

2.2 Vegetation Monitoring

In accordance with the OMP, monitoring is required to assess the positive and negative impacts of management actions on the integrity of the offset site, and to implement any changes in management responses, if required. Vegetation monitoring will be conducted **annually** from here onwards, with progress reports provided to the responsible authority at the end of year 2, 4, 6 and 10 of the program.

This monitoring will be undertaken by a suitably qualified ecologist, with input from the landowners. However, the frequency of monitoring may need to vary to allow for seasonal variations and to target periods of active weed growth. Similarly, pest animal monitoring should be undertaken at a time of year when the target species are most active so that an accurate assessment of population size can be made.

It is recommended that monitoring be undertaken by qualified ecological consultants familiar with the methodology for assessing the quality of remnant vegetation as well as any offset and EPBC Act referral conditions.

Monitoring and progress reports should include the following:

- Overall condition and composition of vegetation as well as consideration of measurable vegetation quality outcomes i.e. habitat hectare assessment;
- Biomass levels;
- The extent, severity, trend and presence of current weed species and any new and emerging weed species; and,
- Implementation of permanent photo points. Photographs must be taken at the same location and during the same time of each year. Photo points will allow monitoring of weed populations and maintenance of the current condition of native vegetation within the offset site. Details of photo points and photographs will be provided to DELWP where required as evidence of progress.

2.3 Golden Sun Moth Monitoring

In accordance with the OMP, ongoing monitoring is required to determine if a viable Golden Sun Moth population is persisting within the offset site (Areas B1, B2 and E) and to ensure that management actions and habitats are suitable for the Golden Sun Moth population in the future.

Annual monitoring of Golden Sun Moth populations will be undertaken for an initial four (4) year period, and then in years 6, 8 and 10 (within the ten year management timeframe). If, at the end of the four year monitoring program, the results indicate a decline in the Golden Sun Moth population or degradation of Golden Sun Moth habitat, the OMP will be re-evaluated and adapted accordingly.

Specific survey procedures will follow those approved by DoE and outlined in the *Biodiversity Precinct Planning Kit* (DSE 2010). The following measures will be undertaken as part of population and habitat monitoring for Golden Sun Moth in the initial 4 year period (and extended if required):

- Surveys are to be conducted by suitably trained observers;
- Surveys must take place during the species' flight season. This is generally late October to early January. Ensure moths are active on the day of assessment by using a reference site where the species is known to be present;
- Surveys must be undertaken during conditions suitable for detecting the species. Male moths generally fly between 10am and 3pm on warm (over 20°C by 10am) days with minimal cloud cover and still conditions. However if males are observed flying after 3pm or during moderately windy conditions surveys can continue until males are no longer observed flying; and
- Surveys should be conducted using 50 metre wide, parallel transects with two observers walking or, if terrain permits, driving in a car at < 10 km / hour (flying male moths can be readily seen from a vehicle) until moths are observed. Tracks (transects) must be recorded with a GPS to show where survey has been undertaken.

2.4 Baseline Surveys for Golden Sun Moth

Collection of baseline data will be used as a reference point to assess the impacts of management actions. Targeted surveys for Golden Sun Moth were undertaken on 30 November, 4 and 17 December 2015 to gather baseline data on the number of moths and their approximate distribution across the offset site. Surveys were conducted across the offset site, but especially focussed on areas identified as supporting indigenous grassland containing Wallaby-grass which is a known food source for Golden Sun Moth.

Areas of suitable habitat were walked or driven by qualified zoologists over several separate days during the known flight season (i.e. late-October to early January). Surveys were undertaken at a time which is considered suitable for detecting the species (i.e. when adult males are likely to be flying). The male of this species generally flies between 11am and 3pm on calm, warm (over 20°C), sunny days.

2.5 Assessment Qualifications and Limitations

Targeted Golden Sun Moth surveys were undertaken by experienced personnel during the known flight period of the species and during appropriate conditions by following suitable survey guidelines. Fauna surveys were conducted under the Ecology and Heritage Partners Pty Ltd Research Permit (#10006893) issued by DELWP under the *Wildlife Act 1975*.

Given the species was confirmed on site as a result of previous targeted surveys, no additional 'reference' sites were visited to confirm the species flight activity prior to undertaking surveys. However, given the species presence on site and the experience of surveyors, the results of the surveys are considered adequate for the purposes of confirming the species presence and distribution across the offset site.

3 BASELINE RESULTS

3.1 Baseline Vegetation Condition

The following tables outline the current vegetation condition and target conditions within the offset site.

Table 1. Quantification of the current Site Condition Score and estimated improvement from the management of Group 3 Area B1, Warrambeen, during the 2015/16 monitoring period.

EOI Code / land manager name		Rosenthal Estate		
Site code (number) / Habitat Zone ID (letter)		Group3 Area B1		
Land tenure		Freehold		
Property Size		>=10 Ha		
Patch Size		>=20Ha		
Zone type		Offset (Stat Planning)		
Proposal type		Remnant patch		
Security arrangement		Registered on-title agreement or crown land equivalent		
Bioregion		Victorian Volcanic Plain		
EVC name		Plains Grassland		
BCS		Endangered		
EVC standardiser		1.36		
		Max	Current condition (2015/16)	Predicted condition following 10 years of management*
Scores	Large Trees	10	n/a	n/a
	Tree Canopy Cover	5	n/a	n/a
	Understorey	25	15	15
	Lack of Weeds	15	9	9
	Recruitment	10	10	10
	Organic Litter	5	3	4
	Logs	5	n/a	n/a
Total Site Condition Score			37	38

Notes: Ha = Hectare, HHa = Habitat hectare; n/a = not applicable; * Based on improvement gain/ha, as specified in the Offset Management Plan (Ecology and Heritage Partners Pty Ltd 2015).

3.2 Golden Sun Moth Baseline Data

Targeted surveys identified a total of 62 Golden Sun Moth flying within the offset site (Table 2). The species was located predominantly within areas of more open ground containing preferred host plants including Wallaby-grasses (Figure 2).

Table 2. Golden Sun Moth Population Monitoring within the Saxon Paddock offset site during the 2015/16 monitoring period.

Date	Survey times	Reference Site	Temperature (°C) (9am and 3pm)		Wind (km/hr)	Cloud cover (%)	No. of days since rain	No. GSM
30/11/2015	10:00 – 15:30	Flying during survey	15.9	28.5	24	60	2	17
4/12/2015	11:20 – 15:30	Flying during survey	16.7	30.6	7	15	1 (0.2mm)	43
17/12/2015	11:00 – 13:50	Flying during survey	17.4	34.4	17	10	>2	2

The species is likely to have emerged early in November or even late October before monitoring had commenced. For example, the species was observed flying in high numbers (>2000) throughout Geelong in late October indicating an early commencement of the typical flight season around this locale compared with recent years (A, Taylor pers. obs.). Given areas further west of Geelong such as Warrambeen typically have an earlier commencement of Golden Sun Moth emergence, it is likely that the peak emergence within the offset site had potentially passed prior to the commencement of monitoring. Therefore, the results from the baseline monitoring survey should not be viewed as the minimum population size and the detection of more Golden Sun Moth would be expected in future monitoring events.

3.2.1 Biomass

The key performance target for biomass control in this instance is the maintenance of open structured Plains Grassland community suitable for the ecological requirements of Golden Sun Moth. The baseline biomass cover and target biomass cover following the 10 year management period, as per the OMP, are presented in Table 3.

Table 3. Biomass targets and current levels within Group 3 Area B and E, Warrambeen, during the baseline habitat monitoring for Golden Sun Moth. **Note:** control targets set by Ecology and Heritage Partners Pty Ltd.

Management Year	Biomass Target % *	Current Biomass Cover %
Baseline	70%	70%

3.2.2 Weed Cover

The control of weed species is a key management action within the offset area and critical to the maintenance of indigenous vegetation cover and species diversity. The baseline weed cover and key performance targets for weed cover following the 10 year management period, as per the OMP, are presented in Table 4.

Table 4. Current weed cover and OMP targets within Group 3 Area B and E, Warrambeen. **Note:** (*) = Control targets set within endorsed OMP (Ecology and Heritage Partners Pty Ltd 2015).

Management Year	Current Cover %	% Weed Cover Target*
Baseline	High threat weeds: ≤ 5%	High threat weeds: <1%
	Medium threat weeds: 10%	Medium threat weeds: <5%
	Low threat weeds: 25%	Low threat weeds: Control and, if possible, reduce cover

3.3 Other Monitoring

Information relating to fencing, weed control and pest animal control will be provided by landowners and the relevant contractors, with a landowner monitoring form completed on an annual basis in accordance with the endorsed OMP (Ecology and Heritage Partners Pty Ltd 2015). This information will be included in the progress report, discussed below.

3.3.1 Photo Points

Photo points have been established within the offset site by the landowners and will be provided in conjunction with future monitoring requirements as outlined within the endorsed OMP.

3.4 Reporting

Progress reports will be provided to the responsible authority at the end of years 2, 4, 6 and 10 of the program. A copy of the Management Actions Table detailing actions to be completed during the reporting period is provided in Appendix 1 (Table A1.1) to monitor specific goals over the 10 year monitoring timeframe. Information to be provided in the progress report includes:

- Landowner monitoring and reporting forms;
- A description of the specific monitoring results from ecological surveys undertaken;
- Results of weed and pest animal control work;
- Successful management tools (i.e. techniques used to control weed species, monitoring technique, etc.);
- Any problems or issues experienced (i.e. new infestation of weed species, etc.);
- Any corrective actions and contingency measures where monitoring indicates that there has been a deterioration in the native vegetation or Golden Sun Moth population; and
- Photographs showing evidence of works.

In order to meet EPBC Act referral conditions, all records/evidence of management actions must be maintained, and submitted to DoE upon request. In addition, any proposed management changes must be submitted to DoE prior to the changes being undertaken.

If any agreed management actions or commitments are incomplete or have not been undertaken in the times specified, the landowner is to document the justification and the actions that will be undertaken to implement the requirement.

Landowner Monitoring and Reporting Form

Information relating to fencing, weed control and pest animal control will be provided by landowners and the relevant contractors, with a landowner monitoring form completed on an annual basis (see below). The template for a landowner monitoring and reporting form is shown in Appendix 1 (Table A1.2).

If any agreed management actions or commitments are incomplete or have not been undertaken in the times specified, the responsible party must explain the reasons why and what program of action/s will be undertaken to implement the action. If no action has been undertaken please explain the reason(s) and how the targets specified will be met.

3.5 Conclusion

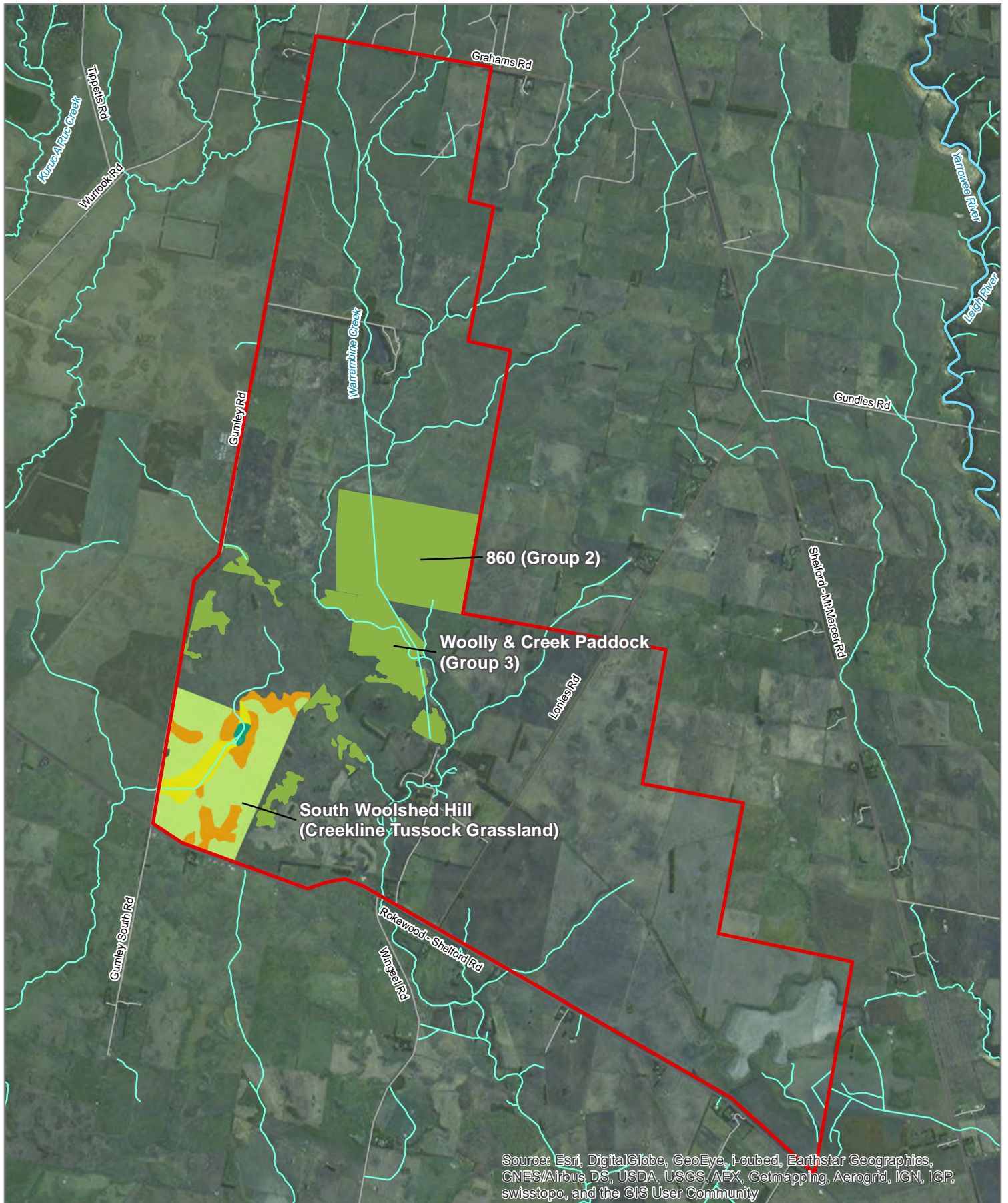
The baseline surveys for Group 3 Area B1, B2 & E (Woolly and Creek Paddocks), Warrambeen, indicated a total of 62 Golden Sun Moth were detected over several separate monitoring events. Overall, current conditions at the site are favourable for the ongoing viability of the Golden Sun Moth population and should be maintained to ensure the species persist over consecutive monitoring events.

Management actions to meet the targets outlined within the Offset Management Plan will be implemented as per Sections 2.1 and 2.2 of this report. Management actions should be reviewed following the 2016/17 monitoring season prior to submission of the first progress report at the end of the second year of monitoring for Golden Sun Moth and vegetation assessments within the Rosenthal offset site as per Section 3.4 above.

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FIGURES

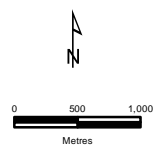


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Figure 1
Warrambeen Offset Site
 Warrambeen Offset Site

Legend

- Property boundary
- Native vegetation**
- Heavier-soils Plains Grassland
- Creekline Tussock Grassland
- Plains Grassland
- Plains Grassy Wetland
- Stony Knoll Shrubland



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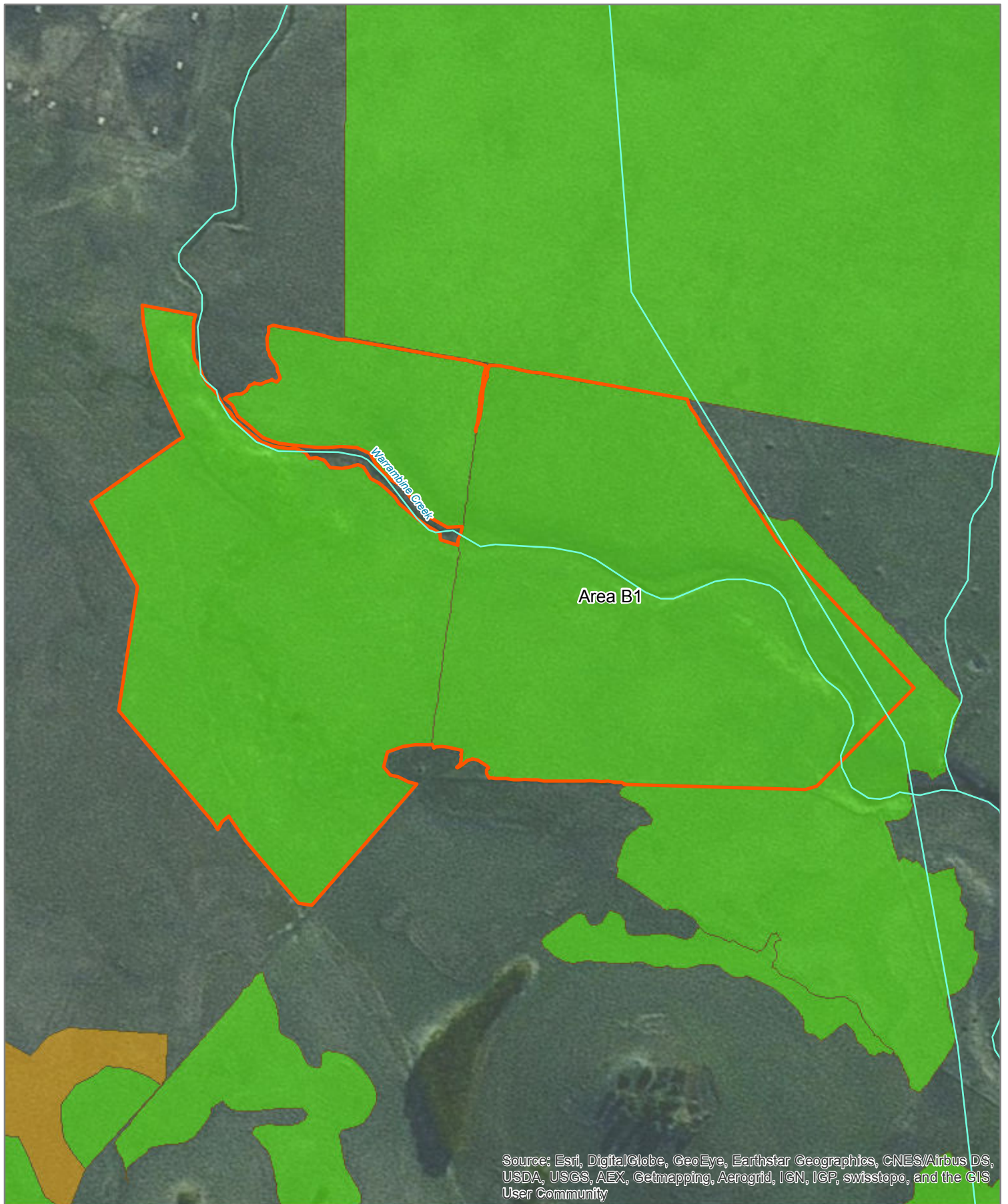
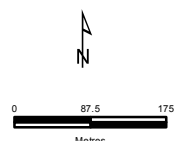
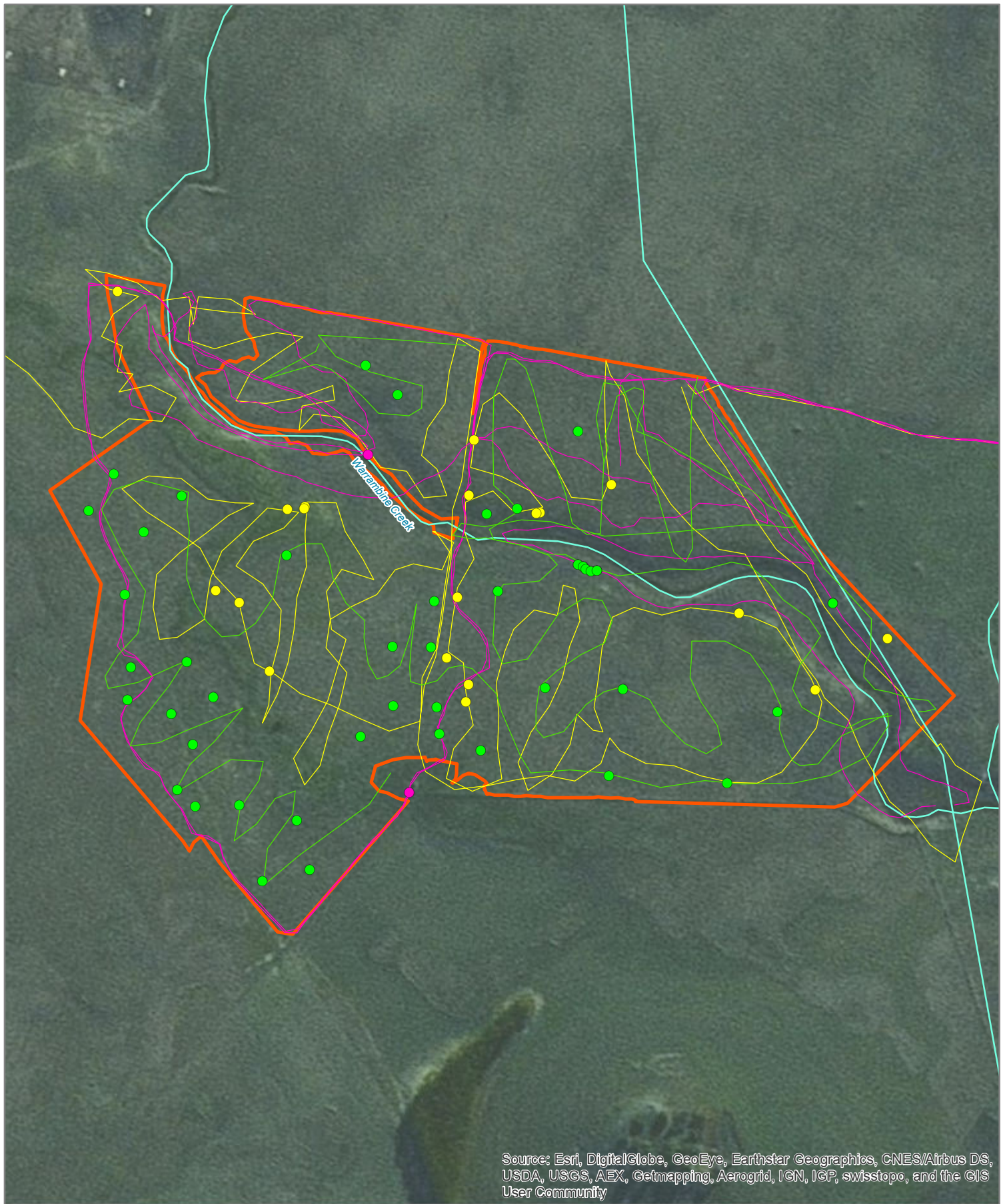


Figure 3
Vegetation offset area
(State offset under
Framework)
Warrambien Group 3
Area B1

- Legend**
- Rosenthal Estate Offset Area
 - Native vegetation**
 - Plains Grassland
 - Stony Knoll Shrubland



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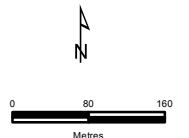


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Figure 2
Golden Sun Moth
population and habitat
monitoring
Warrambe Group 3
Areas B1, B2 and E

Legend

- Rosenthal Estate Offset Area
- GSM records (1st survey 30/11/15) - 17 moths
- GSM records (2nd survey 04/12/15) - 43 moths
- GSM records (3rd survey 17/12/15) - 2 moths
- Tracks (1st survey 30/11/15)
- Tracks (2nd survey 04/12/15)
- Tracks (3rd survey 17/12/15)



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APPENDIX 1 – MANAGEMENT TABLES

A1.1 Management Action (10 Years)

Table A.1. Management actions constitute the minimum management requirements for the offset site over the mandatory 10 year management period.

Year	Action	Management action	Responsible authority / personnel	Timing of action	Date completed
0	0.1	Implement on-title legal agreements for offset site	Liaise between the landowner, DELWP and Council.	Within three months of this plan being approved by DELWP and DoE	
0	0.2	Acquire baseline monitoring data	Suitably qualified ecological specialist	Within three months of this plan being approved by DELWP and DoE	March 2016
0	0.3	Prepare tenders for relevant management contractors where required	Landowners / engaged consultants	Prior to commencement of development	
1	1.1	Install permanent fences surrounding the offset sites	Landowner	Within three months of this plan being approved by DELWP and DoE	
1	1.2	Conduct weed control	Landowner/Bushland Management Contractor	Species dependent	
1	1.3	Monitor populations of pest animals and conduct control works if required	Landowner/Pest Animal Contractor	After peak breeding season - late summer/early autumn	
1	1.4	Conduct monitoring for vegetation and Golden Sun Moth	Suitably qualified ecological specialist	One year after commencement of OMP	
1	1.5	Monitor biomass density and implement stock grazing regime or develop ecological burn/ fuel reduction plan if appropriate	Landowner/Bushland Management Contractor/CFA	Summer/Autumn	
2	2.1	Conduct weed control	Landowner/Bushland Management Contractor	Species dependent	
2	2.2	Monitor populations of pest animals and conduct control works if required	Landowner/Pest Animal Contractor	After peak breeding season - late summer/early autumn	

Year	Action	Management action	Responsible authority / personnel	Timing of action	Date completed
2	2.3	Conduct monitoring for vegetation and Golden Sun Moth and progress reporting	Suitably qualified ecological specialist	Two years after commencement of OMP	
2	2.4	Maintain fences	Landowner/Fencing Contractor	As required	
2	2.5	Monitor biomass density and implement stock grazing regime or develop ecological burn/ fuel reduction plan if appropriate	Landowner/Bushland Management Contractor/CFA	Summer/Autumn	
2	2.6	Monitor and assess works, and prepare progress report	Suitably qualified ecological specialist	Two years after commencement of OMP	
3	3.1	Conduct weed control	Landowner/Bushland Management Contractor	Species dependent	
3	3.2	Monitor populations of pest animals and conduct control works if required	Landowner/Pest Animal Contractor	After peak breeding season - late summer/early autumn	
3	3.3	Conduct monitoring for vegetation and Golden Sun Moth	Suitably qualified ecological specialist	Three years after commencement of OMP	
3	3.4	Maintain fences	Landowner/Fencing Contractor	As required	
3	3.5	Monitor biomass density and implement stock grazing regime or develop ecological burn/ fuel reduction plan if appropriate	Landowner/Bushland Management Contractor/CFA	Summer/Autumn	
4	4.1	Conduct weed control	Landowner/Bushland Management Contractor	Species dependent	
4	4.2	Monitor populations of pest animals and conduct control works if required	Landowner/Pest Animal Contractor	After peak breeding season - late summer/early autumn	
4	4.3	Conduct monitoring for vegetation and Golden Sun Moth and progress reporting	Suitably qualified ecological specialist	Four years after commencement of OMP	
4	4.4	Maintain fences	Landowner/Fencing Contractor	As required	
4	4.5	Monitor biomass density and implement stock grazing regime or develop ecological burn/ fuel reduction plan if appropriate	Landowner/Bushland Management Contractor/CFA	Summer/Autumn	
5	5.1	Conduct weed control	Landowner/Bushland Management	Species dependent	

Year	Action	Management action	Responsible authority / personnel	Timing of action	Date completed
			Contractor		
5	5.2	Monitor populations of pest animals and conduct control works if required	Landowner/Pest Animal Contractor	After peak breeding season - late summer/early autumn	
5	5.3	Conduct monitoring for vegetation	Suitably qualified ecological specialist	Five years after commencement of OMP	
5	5.4	Maintain fences	Landowner/Fencing Contractor	As required	
5	5.5	Monitor biomass density and implement stock grazing regime or develop ecological burn/ fuel reduction plan if appropriate	Landowner/Bushland Management Contractor/CFA	Summer/Autumn	
5	5.6	Monitor and assess works, and prepare progress report	Suitably qualified ecological specialist	Five years after commencement of OMP	
6	6.1	Conduct weed control	Landowner/Bushland Management Contractor	Species dependent	
6	6.2	Monitor populations of pest animals and conduct control works if required	Landowner/Pest Animal Contractor	After peak breeding season - late summer/early autumn	
6	6.3	Conduct monitoring for vegetation and Golden Sun Moth and progress reporting	Suitably qualified ecological specialist	Six years after commencement of OMP	
6	6.4	Maintain fences	Landowner/Fencing Contractor	As required	
6	6.5	Monitor biomass density and implement stock grazing regime or develop ecological burn/ fuel reduction plan if appropriate	Landowner/Bushland Management Contractor/CFA	Summer/Autumn	
7	7.1	Conduct weed control	Landowner/Bushland Management Contractor	Species dependent	
7	7.2	Monitor populations of pest animals and conduct control works if required	Landowner/Pest Animal Contractor	After peak breeding season - late summer/early autumn	
7	7.3	Conduct monitoring for vegetation	Suitably qualified ecological specialist	Seven years after commencement of OMP	
7	7.4	Maintain fences	Landowner/Fencing Contractor	As required	
7	7.5	Monitor biomass density and implement	Landowner/Bushland Management	Summer/Autumn	

Year	Action	Management action	Responsible authority / personnel	Timing of action	Date completed
		stock grazing regime or develop ecological burn/ fuel reduction plan if appropriate	Contractor/CFA		
8	8.1	Conduct weed control	Landowner/Bushland Management Contractor	Species dependent	
8	8.2	Monitor populations of pest animals and conduct control works if required	Landowner/Pest Animal Contractor	After peak breeding season - late summer/early autumn	
8	8.3	Conduct monitoring for vegetation and Golden Sun Moth	Suitably qualified ecological specialist	Eight years after commencement of OMP	
8	8.4	Maintain fences	Landowner/Fencing Contractor	As required	
8	8.5	Monitor biomass density and implement stock grazing regime or develop ecological burn/ fuel reduction plan if appropriate	Landowner/Bushland Management Contractor/CFA	Summer/Autumn	
9	9.1	Conduct weed control	Landowner/Bushland Management Contractor	Species dependent	
9	9.2	Monitor populations of pest animals and conduct control works if required	Landowner/Pest Animal Contractor	After peak breeding season - late summer/early autumn	
9	9.3	Conduct monitoring for vegetation	Suitably qualified ecological specialist	Nine years after commencement of OMP	
9	9.4	Maintain fences	Landowner/Fencing Contractor	As required	
9	9.5	Monitor biomass density and implement stock grazing regime or develop ecological burn/ fuel reduction plan if appropriate	Landowner/Bushland Management Contractor/CFA	Summer/Autumn	
10	10.1	Conduct weed control	Landowner/Bushland Management Contractor	Species dependent	
10	10.2	Monitor populations of pest animals and conduct control works if required	Landowner/Pest Animal Contractor	After peak breeding season - late summer/early autumn	
10	10.3	Conduct monitoring for vegetation and Golden Sun Moth	Suitably qualified ecological specialist	Ten years after commencement of OMP	
10	10.4	Maintain fences	Landowner/Fencing Contractor	As required	

Year	Action	Management action	Responsible authority / personnel	Timing of action	Date completed
10	10.5	Monitor biomass density and implement stock grazing regime or develop ecological burn/ fuel reduction plan if appropriate	Landowner/Bushland Management Contractor/CFA	Summer/Autumn	
10	10.6	Monitor and assess works, and prepare final report	Suitably qualified ecological specialist	Ten years after commencement of OMP	

A1.2 Landowner Monitoring and Reporting Form

Table A 1.2. Landowner Monitoring and Reporting Form

Landowner of offset site		
Location and address of offset site		
Offset site number (if applicable)		
Offset plan reference number (if applicable)		
Responsible Authority		
Report #		
Actions completed within the offset site (since commencement)	Date and details of action	Key performance target met (Y/N)
Signature		
Date		