



16<sup>th</sup> February 2017

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**Attention:** David Sammut (General Manager - Land Development) Phone 9971 6300

**By Email** – [david.sammut@udmgt.com.au](mailto:david.sammut@udmgt.com.au)

Dear David,

**RE: ROSENTHAL ESTATE: 100 VINEYARD ROAD, SUNBURY  
GOLDEN SUN MOTH MONITORING SURVEYS  
BL&A PROJECT NO. 15148.1**

### **Introduction and summary**

This letter provides the results of recent Golden Sun Moth (GSM) monitoring surveys within the conservation reserves at the Rosenthal Estate located at 100 Vineyard Road, Sunbury. These surveys are required under the Council endorsed Conservation Management Plan (EHP 2015).

Four surveys were undertaken at the site in December 2016. Details of each survey are presented in the table below. There were no confirmed sightings of GSM, but three unconfirmed sightings in the early surveys.

### **Method**

#### Survey Guidelines

Golden Sun Moth (GSM) surveys were required within the subject property to assist in determining the status of GSM within the study area for the subject project. The methods for undertaking the survey followed DELWP guidelines (DSE 2010) and these are outlined below:

- GSM surveys must be timed to coincide with the Moth's active season, i.e. December. In some wet years the season may be extended to January.
- Surveys must only be undertaken during suitable weather conditions, namely:
  - Warm to hot days (days above 20°C by 10 am);
  - During the warmest part of the day;
  - Clear to mostly cloudless sky;
  - Still or relatively still wind conditions during the survey period; and
  - At least two days since rain.

- Surveys must be undertaken when male moths are known to be flying. This will be determined by visiting a reference site supporting a known moth population close to the study area prior to undertaking the survey, and/or by liaison with DELWP or other consultants.
- Surveys will occur between 10 am and 3 pm on suitable days unless moths are still observed flying. In such circumstances the surveys will continue until no more moths are observed flying.
- Transect locations will be recorded using a hand-held GPS.
- The aim of the surveys will be to record the moth if it is present. As per the guidelines this is achieved by undertaking a total of up to four surveys in areas of suitable habitat. Every GSM record will be logged on a hand-held GPS for mapping.
- Each survey will involve up to four site visits where transects of decreasing width will be walked. On the first visit transects will be spaced at 50m, on the second at 25m and on the third and final visits at 10m. Surveying can cease once moths are observed and an adequate estimate of numbers is obtained (i.e. not all survey days may be required).

## Results

Table 1: GSM survey results

Date	7/12/2016	12/12/2016	19/12/2016	23/12/2016
Site location (coordinates)	100 Vineyard Rd, Sunbury (-37.589763, 144.705492)			
Survey type	50m Transect survey	25m Transect survey	10m Transect survey	10m Transect survey
Reference site validating survey	260 O'Herns Rd, Epping, east side of Hume Freeway ( 37° 37'58.80"S, 144° 59'14.29"E)		Barry Rd, Broadmeadows Valley park (37° 39'52.83"S, 144° 55'6.07"E)	
Survey start time	11:00am	10:15	11:30	11:00
Survey duration	3.5hrs	4.5 Hrs	3 hrs	2.5hrs
GSM recorded?	Unconfirmed sighting		No	
Time of sighting	11:52am	10:46 and 12:16	NA	NA
Total Number GSM	1	2	NA	NA
Temp on site (°C)	26 to 31	29.9 - 33.6	28-31	27-33
Cloud cover %	0	40	20	10
Wind direction	NW			
Average Wind strength	Gentle	Gentle - Fresh	Fresh-strong	Fresh
Ground conditions (dry/damp/wet)	Dry			

Humidity	Unknown	
Vegetation description	Chiilean Needle-grass	Chiilean Needle-grass, Austrostipa sp., Perrenial Rye-grass, 0-5% bare ground
Behaviour (eg were they seen on the ground or in/flying over vegetation)	Flying over vegetation	NA
Other notes	Possible GSM. Unconfirmed as seen from a distance and they were unable to be caught	GSM confirmed in good numbers at reference site, but not in the study area

### Conclusion

As can be seen from the table above, there were a few non-confirmed sightings of GSM in the first two surveys and none during the last two surveys. As such, no GSM were confirmed present within the study area this season.

Given that this species has been recorded at this site previously, management of the conservation reserves should continue in accordance with the Council endorsed Conservation Management Plan (EHP 2015) as if the species is present.

As an adaptive management approach is being taken, further monitoring may identify a need to change the prescribed management of the site.

If you have any questions regarding the above, please do not hesitate to call me.

Yours sincerely,



**Alan Brennan**

**Senior Ecologist & Project Manager**

**BL&A**

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