



27th March 2019

TF & A Millett
C/- Urban Design and Management Pty Ltd
Office 1, Level 1 – 114 Evans Street
Sunbury VICTORIA 3429

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

By Email – david.sammut@udmgt.com.au

Dear David,

**RE: ROSENTHAL ESTATE: 100 VINEYARD ROAD, SUNBURY
GOLDEN SUN MOTH MONITORING
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 late 2018 and early 2019. Details of each survey are presented in the table below. There were no confirmed sightings of GSM during these 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, the third at 10m and the final visit at 25m due to the season completing earlier than expected. 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	5/12/2018	6/12/2018	11/12/2018	7/01/2019
Site	100 Vineyard Rd, Sunbury (-37.589763, 144.705492)	100 Vineyard Rd, Sunbury (-37.589763, 144.705492)	100 Vineyard Rd, Sunbury (-37.589763, 144.705492)	100 Vineyard Rd, Sunbury (-37.589763, 144.705492)
Survey type	50m Transect survey	25m Transect survey	10m Transect survey	25m 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)	Rokewood	260 O'Herns Rd, Epping, east side of Hume Freeway (37°37'58.80"S, 144°59'14.29"E)	N/A
Survey start time	12:36pm	10:40am	11:57am	9:30am
Survey duration	1.5 hours	1:23 hours	1:01 hours	1.5 hours
GSM recorded? Y/N	None			
Time of sighting	N/A			
Total Number GSM	N/A			
Temp on site (°C)	21.7-22.4	28.2-29.5	23.8-24.6	21.8-23.5
Cloud cover %	20	10	0	0
Wind direction	None	NW	SSE	NE

Date	5/12/2018	6/12/2018	11/12/2018	7/01/2019
Average Wind strength	None	Gentle	Gentle	Gentle
Ground conditions (dry/damp/wet)	Dry			
Humidity	Unknown			
Vegetation description (3 dominant species, native/exotic, amount of bare ground)	Chilean Needle-grass	Chilean Needle-grass	Chilean Needle-grass, Austrostipa sp., Perrenial Rye-grass, 0-5% bare ground	Chilean Needle-grass, Austrostipa sp., Perrenial Rye-grass, 0-5% bare ground
Behaviour (e.g. were they seen on the ground or in/flying over vegetation)	NA			
Other notes	GSM confirmed in good numbers at reference site, but not in study areas	GSM confirmed in good numbers at reference site, but not in study areas	GSM confirmed in good numbers at reference site, but not in study areas	GSM not confirmed at reference site. Likely that season has ended.

Conclusion

As can be seen from the table above, no GSM were recorded within the study area this season (2018-2019).

Given that GSM have 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