

Offsets Assessment Guide

For use in determining offsets under the *Environment Protection and Biodiversity Conservation Act 1999*
2 October 2012

This guide relies on Macros being enabled in your browser.

Matter of National Environmental Significance	
Name	Golden Sun Moth
EPBC Act status	Critically Endangered
Annual probability of extinction Based on IUCN category definitions	6.8%

Key to Cell Colours
User input required
Drop-down list
Calculated output
Not applicable to attribute

Impact calculator						
Protected matter attributes	Attribute relevant to case?	Description	Quantum of impact		Units	Information source
<i>Ecological communities</i>						
Area of community	No		Area			
			Quality			
			Total quantum of impact	0.00		
<i>Threatened species habitat</i>						
Area of habitat	Yes	No targeted surveys undertaken as yet, therefore area of habitat is taken to be entire footprint.	Area	35.67	Hectares	Preliminary Flora and Fauna Assessment Report (EHP 2017). Targeted surveys yet to be undertaken, therefore presence is assumed.
			Quality	6	Scale 0-10	
			Total quantum of impact	21.40	Adjusted hectares	
<i>Threatened species</i>						
Birth rate e.g. Change in nest success	No					
Mortality rate e.g. Change in number of road kills per year	No					
Number of individuals e.g. Individual plants/animals	No					

Offset calculator																														
Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horizon (years)	Start area and quality	Future area and quality without offset	Future area and quality with offset	Raw gain	Confidence in result (%)	Adjusted gain	Net present value (adjusted hectares)	% of impact offset	Minimum (90%) direct offset requirement met?	Cost (\$ total)	Information source														
<i>Ecological Communities</i>																														
Area of community	No				Risk-related time horizon (max. 20 years)	Start area (hectares)	Risk of loss (%) without offset	Risk of loss (%) with offset																						
					Time until ecological benefit	Start quality (scale of 0-10)	Future area without offset (adjusted hectares)	0.0	Future area with offset (adjusted hectares)	0.0																				
							Future quality without offset (scale of 0-10)		Future quality with offset (scale of 0-10)																					
<i>Threatened species habitat</i>																														
Area of habitat	Yes	21.40	Adjusted hectares	Area of GSM habitat to be secured off site	Time over which loss is averted (max. 20 years)	20	Start area (hectares)	154.1	Risk of loss (%) without offset	10%	Risk of loss (%) with offset	1%	Raw gain	13.87	Confidence in result (%)	90%	Adjusted gain	12.48	Net present value	3.35	% of impact offset	21.40	100.01%	Minimum (90%) direct offset requirement met?	Yes	Cost (\$ total)		Information source		
					Time until ecological benefit	10	Start quality (scale of 0-10)	6	Future area without offset (adjusted hectares)	138.7	Future area with offset (adjusted hectares)	152.6	Raw gain	3.00	Confidence in result (%)	90%	Adjusted gain	2.70	Net present value	1.40										
									Future quality without offset (scale of 0-10)	3	Future quality with offset (scale of 0-10)	6																		
<i>Threatened species</i>																														
Birth rate e.g. Change in nest success	No																													
Mortality rate e.g. Change in number of road kills per year	No																													
Number of individuals e.g. Individual plants/animals	No																													

Summary							
Protected matter attributes	Quantum of impact	Net present value of offset	% of impact offset	Direct offset adequate?	Cost (\$)		
					Direct offset (\$)	Other compensatory measures (\$)	Total (\$)
					Birth rate	0	
Mortality rate	0				\$0.00	\$0.00	
Number of individuals	0				\$0.00	\$0.00	
Number of features	0				\$0.00	\$0.00	
Condition of habitat	0				\$0.00	\$0.00	
Area of habitat	21.402	21.40	100.01%	Yes	\$0.00	N/A	\$0.00
Area of community	0				\$0.00		\$0.00
					\$0.00	\$0.00	\$0.00

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Matter of National Environmental Significance	
Name	NTGVVP
EPBC Act status	Critically Endangered
Annual probability of extinction Based on IUCN category definitions	6.8%

Key to Cell Colours
User input required
Drop-down list
Calculated output
Not applicable to attribute

Impact calculator						
Protected matter attributes	Attribute relevant to case?	Description	Quantum of impact		Units	Information source
<i>Ecological communities</i>						
Area of community	Yes	Plains Grassland corresponding to NTGVVP with habitat score averaged to be 6/10	Area	28.23	Hectares	Site assessment undertaken by Biosis
			Quality	6	Scale 0-10	
			Total quantum of impact	16.94	Adjusted hectares	
<i>Threatened species habitat</i>						
Area of habitat	No		Area			
			Quality			
			Total quantum of impact	0.00		
Protected matter attributes	Attribute relevant to case?	Description	Quantum of impact		Units	Information source
Number of features e.g. Nest hollows, habitat trees	No					
Condition of habitat Change in habitat condition, but no change in extent	No					
<i>Threatened species</i>						
Birth rate e.g. Change in nest success	No					
Mortality rate e.g. Change in number of road kills per year	No					
Number of individuals e.g. Individual plants/animals	No					

Offset calculator																			
Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horizon (years)	Start area and quality	Future area and quality without offset	Future area and quality with offset	Raw gain	Confidence in result (%)	Adjusted gain	Net present value (adjusted hectares)	% of impact offset	Minimum (90%) direct offset requirement met?	Cost (\$ total)	Information source			
<i>Ecological Communities</i>																			
Area of community	Yes	16.94	Adjusted hectares	Area of NTGVVP to be secured off site	Risk-related time horizon (max. 20 years)	20	Start area (hectares)	122	Risk of loss (%) without offset	10%	Risk of loss (%) with offset	1%							
					Future area without offset (adjusted hectares)	109.8	Future area with offset (adjusted hectares)	120.8											
					Time until ecological benefit	10	Start quality (scale of 0-10)	6	Future quality without offset (scale of 0-10)	3	Future quality with offset (scale of 0-10)	6	Raw gain	3.00	Confidence in result (%)	90%	Adjusted gain	2.70	Net present value
<i>Threatened species habitat</i>																			
Area of habitat	No				Time over which loss is averted (max. 20 years)		Start area (hectares)		Risk of loss (%) without offset		Risk of loss (%) with offset								
					Future area without offset (adjusted hectares)	0.0	Future area with offset (adjusted hectares)	0.0											
					Time until ecological benefit		Start quality (scale of 0-10)		Future quality without offset (scale of 0-10)		Future quality with offset (scale of 0-10)								
Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horizon (years)	Start value	Future value without offset	Future value with offset	Raw gain	Confidence in result (%)	Adjusted gain	Net present value	% of impact offset	Minimum (90%) direct offset requirement met?	Cost (\$ total)	Information source			
Number of features e.g. Nest hollows, habitat trees	No																		
Condition of habitat Change in habitat condition, but no change in extent	No																		
<i>Threatened species</i>																			
Birth rate e.g. Change in nest success	No																		
Mortality rate e.g. Change in number of road kills per year	No																		
Number of individuals e.g. Individual plants/animals	No																		

Summary							
Protected matter attributes	Quantum of impact	Net present value of offset	% of impact offset	Direct offset adequate?	Cost (\$)		
					Direct offset (\$)	Other compensatory measures (\$)	Total (\$)
					Birth rate	0	
Mortality rate	0				\$0.00	\$0.00	
Number of individuals	0				\$0.00	\$0.00	
Number of features	0				\$0.00	\$0.00	
Condition of habitat	0				\$0.00	\$0.00	
Area of habitat	0				\$0.00	\$0.00	
Area of community	16.935	16.95	100.06%	Yes	\$0.00	N/A	\$0.00
					\$0.00	\$0.00	\$0.00