

# 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	Bilby
EPBC Act status	Vulnerable
Annual probability of extinction Based on IUCN category definitions	0.2%

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	Pindan	Area			
			Quality			
			Total quantum of impact	0.00		
<i>Threatened species habitat</i>						
Area of habitat	Yes	Permanent/Life of Mine Clearing	Area	639.6	Hectares	Condition of vegetation ranged from good to excellent (Mattiske 2016). Some low level disturbance, associated with cattle and some areas subject to fire. Quality varies across site, so an average quality was assumed.
			Quality	7	Scale 0-10	
			Total quantum of impact	447.72	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)	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)													
							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)									
<i>Threatened species habitat</i>																					
Area of habitat	Yes	447.72	Adjusted hectares	Monetary funds for research	Time over which loss is averted (max. 20 years)	20	Start area (hectares)	639.6	Risk of loss (% without offset)	100%	Risk of loss (% with offset)	30%	447.72	90%	402.95	387.16	0.00	0.00%	No	\$1,150,000.00	Recent WA Ministerial Statements & offset packages for the Pilbara have offset values between \$1,500 to \$3,000/ha. This equates to between \$671,580 and \$1,343,160 over the life of the project.
									Future area without offset (adjusted hectares)	0.0	Future area with offset (adjusted hectares)	447.7									
									Future quality without offset (scale of 0-10)	0	Future quality with offset (scale of 0-10)	0									
Time until ecological benefit	1	Start quality (scale of 0-10)	7	Future quality without offset (scale of 0-10)	0	Future quality with offset (scale of 0-10)	0	Raw gain	0.00	Confidence in result (%)	90%	Adjusted gain	0.00	Net present value	0.00						
<i>Threatened species</i>																					
Number of features e.g. Nest hollows, habitat trees	No																				
Condition of habitat Change in habitat condition, but no change in extent	No																				
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	447.72	0.00	0.00%	No	\$1,150,000.00	N/A	\$1,150,000.00
Area of community	0				\$0.00		\$0.00
					<b>\$1,150,000.00</b>	<b>\$0.00</b>	<b>\$1,150,000.00</b>

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Impact calculator						
Protected matter attributes	Attribute relevant to case?	Description	Quantum of impact		Units	Information source
<i>Ecological communities</i>						
Area of community	No	Pindan	Area			
			Quality			
			Total quantum of impact	0.00		
<i>Threatened species habitat</i>						
Area of habitat	Yes	Temporary Clearing for Mining Excavation	Area	1633	Hectares	Condition of vegetation ranged from good to excellent (Mattiske 2016). Some low level disturbance, associated with cattle and some areas subject to fire. Quality varies across site, so an average quality was assumed.
			Quality	7	Scale 0-10	
			Total quantum of impact	#####	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)	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				
							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)		
<i>Threatened species habitat</i>																				
Area of habitat	Yes	1143.03	Adjusted hectares	Progressive rehabilitation following mining	Time over which loss is averted (max. 20 years)	10	Start area (hectares)	1632.9	Risk of loss (% without offset)	20%	Risk of loss (% with offset)	0%	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
									Future area without offset (adjusted hectares)	1306.3	Future area with offset (adjusted hectares)	1632.9								
									Time until ecological benefit	2	Start quality (scale of 0-10)	7								
<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	\$0.00
Number of individuals	0				\$0.00	\$0.00	\$0.00
Number of features	0				\$0.00	\$0.00	\$0.00
Condition of habitat	0				\$0.00	\$0.00	\$0.00
Area of habitat	1143.03	1043.78	91.32%	Yes	\$500,000.00	\$156,616.61	\$656,616.61
Area of community	0				\$0.00	\$0.00	\$0.00
					<b>\$500,000.00</b>	<b>\$156,616.61</b>	<b>\$656,616.61</b>