

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	Eucalypt woodlands of the
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							
Impact calculator	Protected matter attributes	Attribute relevant to case?	Description	Quantum of impact		Units	Information source
	Ecological communities						
	Area of community	Yes		Area	1.17	Hectares	
				Quality	7	Scale 0-10	
				Total quantum of impact	0.82	Adjusted hectares	
	Threatened species habitat						
	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					
Threatened species							
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																						
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
	Ecological Communities																					
	Area of community	Yes	0.82	Adjusted hectares		Risk-related time horizon (max. 20 years)	20	Start area (hectares)	3.038732	Risk of loss (%) without offset	90%	Risk of loss (%) with offset	30%	1.82	90%	1.64	0.44	0.26	31.48%	No		
						Time until ecological benefit	10	Start quality (scale of 0-10)	1	Future quality without offset (scale of 0-10)	1	Future quality with offset (scale of 0-10)	5	4.00	60%	2.40	1.24					
	Threatened species habitat																					
	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										
						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																				
	Threatened species																					
	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 Calculation 2 - Revegetation

Field Name	Description	Justification for value used
<i>IUCN Criteria</i>	The IUCN criteria for the value being impacted	6.8% - Afforded to Eucalypt Woodlands of the Western Australian Wheatbelt as this community is listed as Critically Endangered under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> .
<i>Area of impact (habitat/community) or Quantum of impact (features/individuals)</i>	The area of habitat/community impacted or number of features/individuals impacted	1.17 hectares - the proposed clearing will see 1.17 hectares of the Eucalypt Woodlands of the Western Australian Wheatbelt TEC cleared .
<i>Quality of impacted area (habitat/community)</i>	The quality score for area of habitat/community being impacted - a measure of how well a particular site supports a particular threatened species or ecological community and contributes to its ongoing viability	7 - The vegetation is in a very good to good condition, comprising <i>Eucalyptus</i> woodlands over variable understorey.
<i>Time over which loss is averted (habitat/community)</i>	This describes the timeframe over which changes in the level of risk to the proposed offset site can be considered and quantified	20 - The revegetation site will be conserved in perpetuity under a conservation covenant or change in vesting to conservation. 20 years is the maximum value associated with this field.
<i>Time until ecological benefit (habitat/community) or Time horizon (features/individuals) or value (features/individuals) improvement of the proposed offset to be realised</i>	This describes the estimated time (in years) that it will take for the main benefit of the quality (habitat/community) or value (features/individuals) improvement of the proposed offset to be realised	10 - The process for improving vegetation to good or better condition is likely to take a minimum of 10 years
<i>Start area (habitat/community) or Start value (features/individuals)</i>	The area of habitat/community or number of features/individuals proposed to offset the impacts	3.038 hectares of revegetation to good or better condition is required
<i>Start quality (habitat/community)</i>	The quality score for the area of habitat/community proposed as an offset - a measure of how well a particular site supports a particular threatened species or ecological community and contributes to its ongoing viability	1 - Revegetation of an area that is in a degraded to completely degraded condition.
<i>Future quality without offset (habitat/community) or Future value without offset (features/individuals)</i>	The predicted future quality score (habitat/community) or value (features/individuals) of the proposed offset site without the offset	1 - It is assumed that the condition of the area would stay the same over a 10 year period given that it is already in a degraded to completely degraded condition.
<i>Future quality with offset (habitat/community) or Future value with offset (features/individuals)</i>	The predicted future quality score (habitat/community) or value (features/individuals) of the proposed offset site with the offset	5 - It is assumed that the vegetation of the revegetation area would reach a good or better condition within 10 years
<i>Risk of loss (%) without offset (habitat/community)</i>	This describes the chance that the habitat/community on the proposed offset site will be completely lost (i.e. no longer hold any value for the protected matter of concern) over the foreseeable future without an offset	90% - The vegetation in the potential revegetation site which is assumed to be in a degraded to completely degraded condition is considered unlikely to regenerate to a good condition without revegetation efforts
<i>Risk of loss (%) with offset (habitat/community)</i>	This describes the chance that the habitat/community on the proposed offset site will be completely lost (i.e. no longer hold any value for the protected matter of concern) over the foreseeable future with an offset	30% - A conservation covenant or change in vesting to conservation should reduce the risk of loss to 30%. The risk of revegetation failing still remains
<i>Confidence in result (%) – risk of loss (habitat/community)</i>	The capacity of measures to mitigate risk of loss of the proposed offset site	90% - A conservation covenant or change in vesting to conservation will protect the offset site
<i>Confidence in result (%) – Change in quality (habitat/community) or Change in value (features/individuals)</i>	The level of certainty about the successful achievement of the proposed change in quality (habitat/community) or value (features/individuals)	60% - revegetation runs the risk of failing
<i>% of impact offset</i>	% of the significant residual impact that would be offset by the proposed offset (note: the offset calculations combined should equate to 100% for each residual impact)	31.48% - Obtained through the input of variables explained above.