Matter of National Environmental Signi	licance
Name	Banksia Woodland
, tune	of SCP TEC
EPBC Act status	Endangered
Annual probability of extinction Based on IUCN category definitions	1.2%

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

			Impact calcu	lator										
	Protected matter attributes	Attribute relevant to case?	Description	Quantum of imj	pact	Units	Information source							
			Ecological c	ommunities										
			G 1 1 1 1 1 1 1 1 1 1	Area	8.03	Hectares	Total clearing of 8.03 ha of Banksia Woodland of SCP							
	Area of community	Yes	Clearing of 8.03 ha of Banksia Woodland of the SCP TEC within the Development	Quality	8	Scale 0-10	TEC comprising of 2.05 ha in Excellent condition, 4.09 ha in Very Good condition, 0.10 ha in Very Good-							
			Envelope	Total quantum of impact	6.42	Adjusted hectares	Good condition and 1.79 ha in Good condition.							
		Threatened species habitat												
				Area										
ator	Area of habitat	No		Quality										
Impact calculator				Total quantum of impact	0.00									
Iul	Protected matter attributes	Attribute relevant to case?	Description	Quantum of imj	pact	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												
			Threatene	ed species										
	Birth rate e.g. Change in nest success	No												
	Mortality rate e.g Change in number of road kills per year	No												
	N umber of individuals e.g. Individual plants/animals	No												

										Offset calcula	tor									
	Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horiz (years)		Start are quali		Future area and quality without offse		e area and 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 Co	mmunities	munities								
	Area of community	Yes	6.42	Adjusted hectares	Land acquisition (transfer to conservation) and ongoing maintenance	Risk-related time horizon (max. 20 years)	20	Start area (hectares)	53.08	Risk of loss (%) without offset Future area without offset (adjusted hectares)	Risk of (%) wi offse Future a with off (adjust hectar	h 5% rea et 50.4	5.31	90%	4.78	3.76 6.42	100.00%	Yes		
						Time until ecological benefit	1	Start quality (scale of 0- 10)	7	Future quality without offset 6 (scale of 0-10)	Futur quality offset (so of 0-10	ith ale 7	1.00	85%	0.85	0.84				
										Threatened spe	cies habite	t								
ator	Area of habitat	No				Time over which loss is averted (max. 20 years)		Start area (hectares)		Risk of loss (%) without offset Future area without offset (adjusted hectares)	Risk of (%) wi offse Future a with off (adjust hectar	h rea et 0.0 d								
Offset calculator						Time until ecological benefit		Start quality (scale of 0- 10)		Future quality without offset (scale of 0-10)	Futur quality offset (so of 0-10	ith ale								
Offs	Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horiz (years)		Start value		Future value withou offset	ithout Future valu 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																		

Matter of National Environmental Signifi	cance
Name	Banksia Woodland of SCP TEC
EPBC Act status	Endangered
Annual probability of extinction Based on IUCN category definitions	1.2%

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

			Impact calcu	lator										
	Protected matter attributes	Attribute relevant to case?	Description	Quantum of imj	pact	Units	Information source							
			Ecological c	ommunities										
			G 1 1 1 1 1 1 1 1 1 1	Area	8.03	Hectares	Total clearing of 8.03 ha of Banksia Woodland of SCP							
	Area of community	Yes	Clearing of 8.03 ha of Banksia Woodland of the SCP TEC within the Development	Quality	8	Scale 0-10	TEC comprising of 2.05 ha in Excellent condition, 4.09 ha in Very Good condition, 0.10 ha in Very Good-							
			Envelope	Total quantum of impact	6.42	Adjusted hectares	Good condition and 1.79 ha in Good condition.							
		Threatened species habitat												
				Area										
ator	Area of habitat	No		Quality										
Impact calculator				Total quantum of impact	0.00									
Iul	Protected matter attributes	Attribute relevant to case?	Description	Quantum of imj	pact	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												
			Threatene	ed species										
	Birth rate e.g. Change in nest success	No												
	Mortality rate e.g Change in number of road kills per year	No												
	N umber of individuals e.g. Individual plants/animals	No												

					Offset c	alculate	or														
	Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time hori (years)		Start are quali		Future are quality witho		Future ar quality wit		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
										Ecolog	ical Com	Communities									
	Area of community	Yes	6.42	Adjusted hectares	Land acquisition (transfer to conservation) and ongoing maintenance	Risk-related time horizon (max. 20 years)	20	Start area (hectares)	50.15	Risk of loss (%) without offset Future area without offset (adjusted hectares)	15% 42.6	Risk of loss (%) with offset Future area with offset (adjusted hectares)	5% 47.6	5.02	90%	4.51	3.56 6.42	100.01%	Yes		
						Time until ecological benefit	1	Start quality (scale of 0- 10)	8	Future quality without offset (scale of 0-10)	7	Future quality with offset (scale of 0-10)	8	1.00	85%	0.85	0.84				
										Threate	ned spec	ies habitat									
tor	Area of habitat	No				Time over which loss is averted (max. 20 years)		Start area (hectares)		Risk of loss (%) without offset Future area without offset (adjusted hectares)	0.0	Risk of loss (%) with offset Future area with offset (adjusted hectares)	0.0								
Offset calculator						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)									
Offs	Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time hori (years)		Start value		Future value without offset		Future val offse		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																			
										Thre	eatened s	pecies									
	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																			

Matter of National Environmental Signif	icance
Name	Banksia Woodland of SCP TEC
EPBC Act status	Endangered
Annual probability of extinction Based on IUCN category definitions	1.2%

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

			Impact calcu	lator										
	Protected matter attributes	Attribute relevant to case?	Description	pact	Units	Information source								
			Ecological c	ommunities										
				Area	8.03	Hectares	Total clearing of 8.03 ha of Banksia Woodland of SCP							
	Area of community	Yes	Clearing of 8.03 ha of Banksia Woodland of the SCP TEC within the Development	Quality	8	Scale 0-10	TEC comprising of 2.05 ha in Excellent condition, 4.09 ha in Very Good condition, 0.10 ha in Very Good-							
			Envelope	Total quantum of impact	6.42	Adjusted hectares	Good condition and 1.79 ha in Good condition.							
		Threatened species habitat												
				Area										
ator	Area of habitat	No		Quality										
Impact calculator				Total quantum of impact	0.00									
Imi	Protected matter attributes	Attribute relevant to case?	Description	Quantum of imp	pact	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												
			Threatene	d 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												

		alculato	or																			
		Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horizon (years)		Start area and quality		Future area and quality without offset				Raw gain	Confidence in result (%)	Adjusted gain	Net prese (adjusted l		% of impact offset	Minimum (90%) direct offset requirement met?	Cost (\$ total)	Information source
								Ecological Comm			munities											
	Area of community	Yes	6.42	Adjusted hectares	Land acquisition (transfer to conservation) and ongoing maintenance	Risk-related time horizon (max. 20 years)	20	Start area (hectares)	47.52	Risk of loss (%) without offset Future area without offset (adjusted hectares)	15% 40.4	Risk of loss (%) with offset Future area with offset (adjusted hectares)	5% 45.1	4.75	90%	4.28	3.37	6.42	100.01%	Yes		
						Time until ecological benefit	1	Start quality (scale of 0- 10)	9	Future quality without offset (scale of 0-10)	8	Future quality with offset (scale of 0-10)	9	1.00	85%	0.85	0.84					
								_		Threate	ned speci	es habitat										
						Time over which loss is		Start area		Risk of loss (%) without offset		Risk of loss (%) with offset										
ator	Area of habitat	No				averted (max. 20 years)		(hectares)		Future area without offset (adjusted hectares)	0.0	Future area with offset (adjusted hectares)	0.0									
Offset calculator						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)										
Offs	Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time hori: (years)		Start value		Future value without offset		Future val offse		Raw gain	Confidence in result (%)	Adjusted gain	Net prese	nt 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																				
										Thr	eatened s	pecies										
	Birth rate e.g. Change in nest success	No																				
	Mortality rate e.g Change in number of road kills per year	ange in number of road kills r																				
	Number of individuals e.g. Individual plants/animals	No																				

Matter of National Environmental Signific	ance
Name	SCP 26a
EPBC Act status	Endangered
Annual probability of extinction Based on IUCN category definitions	1.2%

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

			Impact calcu	lator			
	Protected matter attributes	Attribute relevant to case?	Description	Quantum of imj	pact	Units	Information source
			Ecological c	ommunities			
				Area	0.05	Hectares	Biological survey reports. Total clearing
	Area of community	Yes	Clearing of 0.05 ha of SCP 26a within the Development Envelope	Quality	8	Scale 0-10	of 0.05 ha of SCP 26a comprises of 0.05 ha in Very Good condition (calculator allows min inout of
			Lincipe	Total quantum of impact	0.04	Adjusted hectares	0.13 ha only to not get FALSE reading)
				Area			
ator	Area of habitat	No		Quality			
Impact calculator				Total quantum of impact	0.00		
Imp	Protected matter attributes	Attribute relevant to case?	Description	Quantum of imj	pact	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					
			Threatene	ed species			
	Birth rate e.g. Change in nest success	No					
	Mortality rate e.g Change in number of road kills per year	No					
	N umber of individuals e.g. Individual plants/animals	No					

										Offset o	alculato	r									
	Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time hori (years)		Start are quali		Future are quality witho	a and	Future ar quality wit		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 Con			munities									
	Area of community	Yes	FALSE	Adjusted hectares	Land acquisition (transfer to conservation) and ongoing maintenance	Risk-related time horizon (max. 20 years)	20	Start area (hectares)	0.23	Risk of loss (%) without offset Future area without offset (adjusted hectares)	25% 0.2	Risk of loss (%) with offset Future area with offset (adjusted hectares)	5% 0.2	0.05	90%	0.04	0.03	101.45%	Yes		
						Time until ecological benefit	1	Start quality (scale of 0- 10)	8	Future quality without offset (scale of 0-10)	7	Future quality with offset (scale of 0-10)	8	1.00	85%	0.85	0.84				
										Threate	ned speci	es habitat									
ator	Area of habitat	No				Time over which loss is averted (max. 20 years)		Start area (hectares)		Risk of loss (%) without offset Future area without offset (adjusted hectares)	0.0	Risk of loss (%) with offset Future area with offset (adjusted hectares)	0.0								
Offset calculator						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)									
Offs	Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time hori (years)		Start value		Future value without offset		Future val offse		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																			
									Thr	eatened s	pecies										
	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																			

Matter of National Environmental Signific	ance
Name	SCP 26a
EPBC Act status	Endangered
Annual probability of extinction Based on IUCN category definitions	1.2%

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

			Impact calcu	lator			
	Protected matter attributes	Attribute relevant to case?	Description	Quantum of imp	pact	Units	Information source
			Ecological c	ommunities			
				Area	0.05	Hectares	
	Area of community	Yes	Clearing of 0.05 ha of SCP 26a within the Development Envelope	Quality	8	Scale 0-10	Biological survey reports. Total clearing of 0.05 ha of SCP 26a comprises of 0.05 ha in very good
			Envelope	Total quantum of impact	0.04	Adjusted hectares	condition.
				Area			
ator	Area of habitat	No		Quality			
Impact calculator				Total quantum of impact	0.00		
Imp	Protected matter attributes	Attribute relevant to case?	Description	Quantum of imp	pact	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					
			Threatene	d 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 o	alculate)r									
	Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time hori (years)		Start are quali		Future are quality witho		Future ar quality wit		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	FALSE	Adjusted hectares	with corresponding monetary contribution	Risk-related time horizon (max. 20 years)	20	Start area (hectares) Start quality (scale of 0- 10)		Risk of loss (%) without offset Future area without offset (adjusted hectares)	15% 0.3	Risk of loss (%) with offset Future area with offset (adjusted hectares)	5% 0.4	0.04	90%	0.04	0.03	102.44%	Yes		
					for revegetation measures to be implemented	Time until ecological benefit	10		7	Future quality without offset (scale of 0-10)	6	Future quality with offset (scale of 0-10)	7	1.00	70%	0.70	0.62				
										Threate	ned speci	ies habitat									
ator	Area of habitat	No				Time over which loss is averted (max. 20 years)		Start area (hectares)		Risk of loss (%) without offset Future area without offset (adjusted hectares)	0.0	Risk of loss (%) with offset Future area with offset (adjusted hectares)	0.0								
Offset calculator						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)									
Offs	Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time hori (years)		Start value		Future value without offset		Future val offse		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																			
										Thr	eatened s	pecies									
	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																			

Matter of National Environmental Signific	ance
Name	SCP 26a
EPBC Act status	Endangered
Annual probability of extinction Based on IUCN category definitions	1.2%

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

			Impact calcu	lator			
	Protected matter attributes	Attribute relevant to case?	Description	Quantum of imp	oact	Units	Information source
			Ecological c	ommunities			
				Area	0.05	Hectares	Biological survey
	Area of community	Yes	Clearing of 0.05 ha of SCP 26a within the Development Envelope	Quality	8	Scale 0-10	reports. Total clearing of 0.05 ha of SCP 26a comprises of 0.05 ha in very good condition (calculator allows min
			Lincipe	Total quantum of impact	0.04	Adjusted hectares	inout of 0.13 ha only).
				Area			
ator	Area of habitat	No		Quality			
Impact calculator				Total quantum of impact	0.00		
Imp	Protected matter attributes	Attribute relevant to case?	Description	Quantum of imp	pact	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					
			Threatene	d 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 o	alculato	or									
	Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time hori (years)		Start are quali		Future are quality witho		Future ar quality wit		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
										Ecolog	rical Com	munities									
	Area of community	Yes	FALSE	Adjusted hectares	with corresponding monetary contribution	Risk-related time horizon (max. 20 years)	20	Start area (hectares)	0.59	Risk of loss (%) without offset Future area without offset (adjusted hectares)	15% 0.5	Risk of loss (%) with offset Future area with offset (adjusted hectares)	10% 0.5	0.03	80%	0.02	0.02	101.13%	Yes		
					for revegetation measures to be implemented	Time until ecological benefit	10	Start quality (scale of 0- 10)	5	Future quality without offset (scale of 0-10)	4	Future quality with offset (scale of 0-10)	5	1.00	70%	0.70	0.62				
										Threate	ned speci	es habitat									
ıtor	Area of habitat	No				Time over which loss is averted (max. 20 years)		Start area (hectares)		Risk of loss (%) without offset Future area without offset (adjusted hectares)	0.0	Risk of loss (%) with offset Future area with offset (adjusted hectares)	0.0								
Offset calculator						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)									
Offs	Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time hori (years)		Start value		Future value without offset		Future val offse		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																			
										Thr	eatened s	pecies									
	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																			

Matter of National Environmental Signific	ance
Name	SCP 26a
EPBC Act status	Endangered
Annual probability of extinction Based on IUCN category definitions	1.2%

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

			Impact calcu	lator			
	Protected matter attributes	Attribute relevant to case?	Description	Quantum of imj	pact	Units	Information source
			Ecological c	ommunities			
				Area	0.05	Hectares	
	Area of community	Yes	Clearing of 0.05 ha of SCP 26a within the Development Envelope	Quality	8	Scale 0-10	Biological survey reports. Total clearing of 0.05 ha of SCP 26a comprises of 0.05 ha in very good
			Envelope	Total quantum of impact	0.04	Adjusted hectares	condition.
				Area			
ator	Area of habitat	No		Quality			
Impact calculator				Total quantum of impact	0.00		
Imi	Protected matter attributes	Attribute relevant to case?	Description	Quantum of imj	pact	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					
			Threatene	ed 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 calcu	ulato	or									
		Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horiz (years)		Start are quali		Future area an quality without of		Future are quality wit		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	FALSE	Adjusted hectares	with corresponding monetary contribution	Risk-related time horizon (max. 20 years)	20	Start area (hectares)	0.37	Risk of loss (%) without offset Future area without offset (adjusted hectares)	5% 	Risk of loss (%) with offset Future area with offset (adjusted hectares)	5% 	0.04	90%	0.03	0.03	101.31%	Yes		
					for revegetation measures to be implemented	Time until ecological benefit	10	Start quality (scale of 0- 10)	8	Future quality without offset (scale of 0-10)	7	Future quality with offset (scale of 0-10)	8	1.00	70%	0.70	0.62				
										Threatened	speci	es habitat									
ator	Area of habitat	No			Time over which loss is averted (max. 20 years)		Start area (hectares)		Risk of loss (%) without offset Future area without offset (adjusted hectares)).0	Risk of loss (%) with offset Future area with offset (adjusted hectares)	0.0									
Offset calculator						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)									
Offs	Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horiz (years)		Start value		Future value without offset		ut 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																			
										Threater	ned s	pecies									
	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																			

Matter of National Environmental Signifi	cance
Name	Carnaby's Black Cockatoo
EPBC Act status	Endangered
Annual probability of extinction Based on IUCN category definitions	1.2%

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

			Impact calcu	lator											
	Protected matter attributes	Attribute relevant to case?	Description	Quantum of imj	pact	Units	Information source								
			Ecological c	ommunities											
				Area											
	Area of community	No		Quality											
				Total quantum of impact	0.00										
	Threatened species habitat														
				Area	56.31	Hectares									
ator	Area of habitat	Yes	56.31 ha of impact to Carnaby's Black Cockatoo habitat	Quality	8	Scale 0-10	56.31 ha comprised of 22.56 ha of high value, 33.75 ha of medium value and 2.13 ha of breeding								
Impact calculator				Total quantum of impact	45.05	Adjusted hectares	habitat								
dml	Protected matter attributes	Attribute relevant to case?	Description	Quantum of imj	pact	Units	Information source								
	Number of features e.g. Nest hollows, habitat trees	Yes	45 potential	45		Count	GHD (2019)								
	Condition of habitat Change in habitat condition, but no change in extent	No	breeding trees												
			Threatene	d 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 o	alculato)r										
		Attribute relevant to case?	Total quantum of impact	Units	Proposed offset		Time horizon Start area (years) qualit				Future ar quality wit		Raw gain	Confidence in result (%)	Adjusted gain	Net prese (adjusted		% of impact offset	Minimum (90%) direct offset requirement met?	Cost (\$ total)	Information source	
										Ecolog	ical Com	munities										
	Area of community	No				Risk-related time horizon (max. 20 years)		Start area (hectares)		Risk of loss (%) without offset Future area without offset (adjusted hectares)	0.0	Risk of loss (%) with offset 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)										
										Threate	ned speci	ies habitat										
or	Area of habitat	Yes 45.05	45.05	Adjusted hectares	Land acquisition (transfer to conservation) and ongoing maintenance	Time over which loss is averted (max. 20 years)	20	Start area (hectares)	335	Risk of loss (%) without offset Future area without offset (adjusted hectares)	15% 284.8	Risk of loss (%) with offset Future area with offset (adjusted hectares)	5% 318.3	33.50	90%	30.15	23.75	40.54	90.00%	No		
Offset calculator					of foraging habitat	Time until ecological benefit	1	1 Start quality (scale of 0- 10)	7	Future quality without offset (scale of 0-10)	6	Future quality with offset (scale of 0-10)	7	1.00	85%	0.85	0.84					
Offs	Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time hori (years)		Start value		Future value without offset		Future val offse		Raw gain	Confidence in result (%)	Adjusted gain	Net prese	ent value	% of impact offset	Minimum (90%) direct offset requirement met?	Cost (\$ total)	Information source
	Number of features e.g. Nest hollows, habitat trees	Yes	45	Count	Acquistion of 135 potential breeding trees at 3:1 ratio	5		135	5	114.75	;	128.2	5	13.5	70%	9.45	8.9	90	19.78%	No		
	Condition of habitat Change in habitat condition, but no change in extent	No																				
										Thr	eatened s	pecies										
	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																				

Matter of National Environmental Signifi	cance
Name	Carnaby's Black Cockatoo
EPBC Act status	Endangered
Annual probability of extinction Based on IUCN category definitions	1.2%

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

			Impact calcu	lator											
	Protected matter attributes	Attribute relevant to case?	Description	Quantum of imj	pact	Units	Information source								
			Ecological c	ommunities											
				Area											
	Area of community	No		Quality											
				Total quantum of impact	0.00										
	Threatened species habitat														
				Area	56.31	Hectares									
ator	Area of habitat	Yes	56.31 ha of impact to Carnaby's Black Cockatoo habitat	Quality	8	Scale 0-10	56.31 ha comprised of 22.56 ha of high value, 33.75 ha of medium value and 2.13 ha of breeding								
Impact calculator				Total quantum of impact	45.05	Adjusted hectares	habitat .								
Imp	Protected matter attributes	Attribute relevant to case?	Description	Quantum of imj	pact	Units	Information source								
	Number of features e.g. Nest hollows, habitat trees	Yes		45		Count	GHD (2019)								
	Condition of habitat Change in habitat condition, but no change in extent	No	45 potential breeding trees												
			Threatene	d 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 o	alculato	r										
	Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset		Time horizon Sta (years)		ea and ity	Future area and quality without offset		Future area and quality with offset		Raw gain	Confidence in result (%)	Adjusted gain	Net prese (adjusted)		% of impact offset	Minimum (90%) direct offset requirement met?	Cost (\$ total)	Information source
										Ecolog	ical Com	munities										
	Area of community	No				Risk-related time horizon (max. 20 years)		Start area (hectares)		Risk of loss (%) without offset Future area without offset (adjusted hectares)	0.0	Risk of loss (%) with offset 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)										
										Threate	ned speci	es habitat										
	Area of habitat					Time over which loss is	20	Start area	316.5	Risk of loss (%) without offset	15%	Risk of loss (%) with offset	5%	31.65	90%	28.49	22.44					
ator		Yes	45.05	Adjusted hectares	Land acquisition (transfer to conservation) and ongoing maintenance of foraging habitat	averted (max. 20 years)		(hectares)		Future area without offset (adjusted hectares)	269.0	Future area with offset (adjusted hectares)	300.7	51.05	9070			40.55	90.01%	Yes		
Offset calculator						Time until ecological benefit	1	Start quality (scale of 0- 10)	8	Future quality without offset (scale of 0-10)	7	Future quality with offset (scale of 0-10)	8	1.00	85%	0.85	0.84					
Offs	Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time hori (years)		Start value		Future value without offset		Future val offse		Raw gain	Confidence in result (%)	Adjusted gain	Net prese	nt value	% of impact offset	Minimum (90%) direct offset requirement met?	Cost (\$ total)	Information source
	Number of features e.g. Nest hollows, habitat trees	Yes	45	Count		0		0		0				0	70%	0.00	0.0	00	0.00%	No		
	Condition of habitat Change in habitat condition, but no change in extent	No																				
										Thr	eatened s	pecies										
	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																				

Matter of National Environmental Signifi	cance
Name	Carnaby's Black Cockatoo
EPBC Act status	Endangered
Annual probability of extinction Based on IUCN category definitions	1.2%

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

			Impact calcu	lator									
	Protected matter attributes	Attribute relevant to case?	Description	Quantum of imj	pact	Units	Information source						
			Ecological c	ommunities									
				Area									
	Area of community	No		Quality									
				Total quantum of impact	0.00								
	Threatened species habitat												
		Yes		Area	Area 56.31								
ator	Area of habitat		56.31 ha of impact to Carnaby's Black Cockatoo habitat	Quality	uality 8		56.31 ha comprised of 22.56 ha of high value, 33.75 ha of medium value and 2.13 ha of breeding						
Impact calculator				Total quantum of impact	45.05	Adjusted hectares	habitat						
dml	Protected matter attributes	Attribute relevant to case?	Description	Quantum of imj	pact	Units	Information source						
	Number of features e.g. Nest hollows, habitat trees	Yes		45		Count	GHD (2019)						
	Condition of habitat Change in habitat condition, but no change in extent	No	45 potential breeding trees										
			Threatene	d species									
	Birth rate e.g. Change in nest success	No											
	Mortality rate e.g Change in number of road kills per year	.g Change in number of road kills											
	Number of individuals e.g. Individual plants/animals	No											

										Offset o	alculato	or										
		Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time hori (years)		Start are quali		Future are quality witho		Future ar quality wit		Raw gain	Confidence in result (%)	Adjusted gain	Net prese (adjusted		% of impact offset	Minimum (90%) direct offset requirement met?	Cost (\$ total)	Information source
Ecological Communities									nmunities													
	Area of community	No				Risk-related time horizon (max. 20 years)		Start area (hectares)		Risk of loss (%) without offset Future area without offset (adjusted hectares)	0.0	Risk of loss (%) with offset 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)										
										Threate	ened speci	es habitat										
		habitat Yes 45.05 Adjusted (transfe conservation ongoing mai			Time over which loss is		Start area	300	Risk of loss (%) without offset	15%	Risk of loss (%) with offset	5%	30.00	90%	27.00	21.27						
ator	Area of habitat		Land acquisition (transfer to conservation) and ongoing maintenance of foraging habitat	averted (max. 20 years)	20	0 (hectares)	500	Future area without offset (adjusted hectares)	255.0	Future area with offset (adjusted hectares)	285.0	30.00 90%	90%	27.00	40.56	90.04%	Yes					
Offset calculator					or rotuging montal	Time until ecological benefit	1	Start quality (scale of 0- 10)	9	Future quality without offset (scale of 0-10)	8	Future quality with offset (scale of 0-10)	9	1.00	85%	0.85	0.84					
Offs		Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time hori (years)		Start v	alue	Future value offset		Future val offse		Raw gain	Confidence in result (%)	Adjusted gain	Net prese	ent value	% of impact offset	Minimum (90%) direct offset requirement met?	Cost (\$ total)	Information source
	Number of features e.g. Nest hollows, habitat trees	Yes	45	Count										0		0.00	0.0	00	0.00%	No		
	Condition of habitat Change in habitat condition, but no change in extent	No																				
							-			Thr	eatened s	pecies										
	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																				

		-																											
			Area to be subject to																										
Vegetatior	n condition	Area (ha)	Conservati on significanc e		utside of rail rve (ha)	Offset ratio required	offset based on offset ratio (ha)																						
Excellent	ant	0.44		0.44																									
Very Good	nific: M	8.29	High	4.58	10.82	1.5:1	16.23																						
Very Good -	sigi lanc	0.1	nign	0.1			10.25																						
Good	ally	7.73		5.7																									
Good – Deg	Regionally significant bushland	0.18	Medium	-	7.25	1:01	7.25																						
Degraded	Re	10.97	Medium	7.25	1.20	1.01	1.25																						
Total		27.71		18.07	18.07		23.48																						
Completely Degraded		0.81	Low	0.38		0.38		0.38		-	-																		
Cleared		0.28	None	0.23		0.23		0.23		0.23		0.23		0.23		0.23		0.23		0.23		0.23		0.23		0.23		-	_
Total		28.82		1	23.48																								

Table 12 3: Vegetation condition in the portion of Bush Forever Site 289 that is intersected by the development envelope and required area for offsetting regionally significant bushland

Table 12-5: Vegetation condition within Ningana Bushland

Condition	Regionally significant bushland?	Conservation significance	Area (ha)	Area impacted by YRE Part 2 (ha)	Remaining area	Post-offset vegetation condition	Post offset significanc e
Very Good		High	240.32	7.12	233.2	High	High
Good		High	112.18	13.9	98.28	High	High
Degraded		Medium	76.79	7.2	69.59	Moves from Degraded to Good	High
			429.29	28.22	401.07		
pletely Degr	aded	Low	1.34	-	1.34		Low
Cleared		None	6.65	0.45	6.2		None
Total			437.27	28.68	198.61		