

# Waddi Wind Farm

Offset Management Plan: EPBC 2023/09639 & CPS 10418/1





# **Document Control**

#### **Waddi Wind Farm**

Offset Management Plan: EPBC 2023/09639 & CPS 10418/1



, Part Lot 1 on Plan 8424, 12946 Brand Hwy Cooljarloo

#### Revision

**Revision Number 2** 

Prepared by Surefire Environmental Pty Ltd and Waddi Wind Farm Pty Ltd as Trustee of the Waddi Wind Farm Project Trust.

#### Revisions

Rev	Date	Details	Prepared By	Reviewed By	Approved By
Α	11 July 2025	Draft for Client Review	Sue Brand	Ruth Smith	Ruth Smith
В	25 July 2025	Draft for Client Review	Jeromy Claridge / Selina Carruthers	Peta Brunel	Peta Brunel
С	8 August 2025	Draft for Client Review	Sue Brand	Ruth Smith	Peta Brunel
01	21 August 2025	Final	Sue Brand / Jeromy Claridge	Ruth Smith	James Beckett
02	5 September 2025	Revision 2	Selina Carruthers / Jeromy Claridge	Ruth Smith	Peta Brunel

Tilt Renewables Australia Pty Ltd ACN 101 038 331

GPO Box 16080, Collins Street West, Melbourne, VIC, 8007, Australia

Phone: 1300 660 623 tiltrenewables.com



# **Contents**

1 Intr	oduction	9
1.1	Offset Requirements	11
1.2	Purpose of the OMP	11
2 Sui	itably Qualified Environmental Specialist and Declaration of Accuracy	12
3 Imp	pact Area Description	13
4 Re	levant Legislation	18
4.1 4.1.1 4.1.2	Environment Protection and Biodiversity Conservation Act 1999 (Cth) Environmental Offsets Policy Offsets Assessment Guide	18 18
4.2 4.2.1 4.2.2	Environmental Protection Act 1986 (WA) Western Australia Environmental Offsets Policy Western Australia Offset Guidelines and Calculator	18 18 19
5 En	vironmental Offsets Policy Principles	20
5.1	EPBC Act Environmental Offsets Policy	20
5.2	Western Australia Environmental Offsets Policy	21
6 Re	levant Conservation Advice and Recovery Plans	23
7 Off	set Area Description	24
7.1	Location and Bioregional Context	24
7.2	Existing Land Uses	24
7.3	Environmental Values	24
7.4	Values for Carnaby's Cockatoo	25
8 Ha	bitat Quality Assessment	20
8.1	Field Survey Methodology	20
8.2	Habitat Quality Assessment Methodology	20

١١/ك
77/

8.2.1	Site Condition	21
8.2.2	Site Context	22
8.2.3	Species Stocking Rate	23
8.3	Impact Area Habitat Quality Score	24
8.4	Offset Area Baseline Habitat Quality Score	24
8.5	Vegetation Condition assessment	24
9 Offs	set Calculator Inputs	26
9.1	DCCEEW Offset Assessment Guide	26
9.2	Western Australia Environmental Offsets Calculator	28
10 Offs	set Interim Milestones and Completion Criteria	31
11 Mar	nagement Action	0
11.1	Overall Approach to Management	0
11.2	Management Measures	0
11.3	Revegetation	0
11.3.1	Pre-planting Activities	1
11.3.2	Reference Sites	1
11.3.3	Planting Density	1
11.3.4	Management Outcomes	2
11.4	Monitoring Activities	4
11.5	Offset Area Completion Criteria	5
11.5.1	Triggers for Action	5
11.5.2	Corrective Actions	5
11.6	Nest Box Installation	5
11.6.1	Management Outcomes	6
11.6.2	Nest Box Completion Criteria	6
11.7	Additional Offset Area Management Actions	6
11.8	Species-specific Management Objectives	7
12 Mor	nitoring and Reporting	9
12.1	Monitoring Program Objectives	9



12.2	Monitoring Methods	9
12.3	Reporting Objectives	10
12.4	Data Management	10
13 Ada	aptive Management and Corrective Actions	12
14 Ris	k Assessment	13
15 Cor	mmercial Arrangement and Governance	21
16 Rev	view and Update of OMP	22
17 Ref Append Append Append Append	dix B EPBC Offset Assessment Guide dix C Offset Area Coordinates	23 26 27 28 29
Table	es	
Table 1	Suitably qualified environmental specialist	12
Table 2:	Impacts to Carnaby's cockatoo habitat values	13
Table 3:	Impact area habitat quality score	14
Table 4 I	mpact area habitat quality scores justification	15
Table 5 I	EPBC Offsets Policy principles addressed in this OMP	20
Table 6 \	WA Environmental Offsets Policy Principles addressed in this OMP	21
Table 7 l	Relevant conservation advice and recovery plans	23
Table 8 \	VSAs within the offset area	25
Table 9	Site condition scoring criteria	21
Table 10	Site context scoring criteria	23
Table 11	Impact area habitat quality score	24
Table 12	Baseline habitat quality score	24
Table 13	: Measuring vegetation condition for the South-west and Interzone Botanical Province (Keighe	ry 1994) 25
Table 14	Summary of Offset Assessment Guide inputs	26
Table 15	Application of Western Australia Offset Calculator and rationale	28
Table 16	Offset interim milestones and completion criteria	31



Table 17 Con	npletion criteria for management measures implemented within the offset area	U				
Table 18 Rev	egetation management action schedule	3				
Table 19 Mor	itoring activity schedule	4				
Table 20 Nes	t box installation management action schedule	6				
Table 21 Add	itional management actions and offset area restrictions	7				
Table 22 Spe	cies-specific management objectives	7				
Table 23 Qua	litative measures for likelihood	13				
Table 24 Qua	litative measure for consequence	13				
Table 25 Risk	assessment matrix	14				
Table 26 Risk	Assessment for the offset area	15				
<b>Figures</b>						
Figure 1: Proj	ect area location	10				
Figure 2: Prop	posed Commonwealth and State offset area	20				
Figure 3 Offse	et area location	26				
Append	ices					
Appendix A	Clearing Permit (CPS10418/1)	26				
Appendix B	EPBC Offset Assessment Guide	27				
Appendix C	Offset Area Coordinates	28				
Appendix D Indicative Species List						



# **Glossary and Abbreviations**

Glossary Term Glossary Definition

Project Approvals Determination of application EPBC 2023/09639 pursuant to section 133 of the

Environment Protection and Biodiversity Conservation Act 1999 (Cth) and Clearing Permit (CPS10418/1) granted pursuant to section 51E of the Environmental Protection

Act 1986 (WA).

BC Act Biodiversity Conservation Act 2016 (WA)

BCE Bamford Consulting Ecologists

BoM Bureau of Meteorology

Biodiversity Conservation Act 1999.

DBCA Department of Biodiversity, Conservation and Attractions

DCCEEW Department of Climate Change, Energy, the Environment and Water

Declared Plants Weeds classified as "declared plants" under the Biosecurity and Agriculture Management

Act 2007 (WA)

DPIRD Department of Primary Industries and Regional Development

DSEWPaC Department of Sustainability, Environment, Water, Populations and Communities (now

DCCEEW)

DOEE Department of the Environment and Energy (now DCCEEW)

DWER Department of Water and Environmental Regulation

EP Act Environmental Protection Act 1986 (WA)

EPBC Act Environment Protection and Biodiversity Conservation Act 1999 (Cth)

ha Hectare

HQA Habitat Quality Assessment

km Kilometre

kV Kilovolt

MW Megawatt

MNES Matters of National Environmental Significance

NIASA Nursery Industry Accreditation Scheme, Australia

OAG Offset Assessment Guide

OMP Offset Management Plan

PD Preliminary Documentation

PJR-ENB/EMD 81 Pinjar – Eneabba/Emu Downs Transmission Line



The Project Waddi Wind Farm

The Proponent Waddi Wind Farm Pty Ltd as trustee of the Waddi Wind Farm Project Trust

SWIS Southwest Interconnected System

TEC Threatened Ecological Community

VSA Vegetation and substrate associations



### 1 Introduction

Waddi Wind Farm Pty Ltd as trustee of Waddi Wind Farm Project Trust (the Proponent) is proposing to construct and operate the Waddi Wind Farm (the Project) located approximately 12 kilometres (km) north-west of Dandaragan in Cooljarloo, Western Australia. The Project area is a total of 10,493.7 ha whilst the disturbance area (i.e. the maximum area of disturbance required for construction and operation) is a total of 138.4 ha (see **Figure 1**). For the purposes of this document, the disturbance area is hereafter referred to as the 'impact area'.

The Project is a renewable energy development, comprising up to 18 wind turbines and associated infrastructure, including an overhead 132 kilovolt (kV) transmission line from an on-site substation into Western Power's existing transmission network. The Project includes the following components:

- Up to 18 wind turbines, with a maximum turbine blade tip height of 220 m. The wind turbines will have a total installed indicative capacity of up to 108 megawatts (MW).
- Up to two permanent meteorological monitoring masts for wind speed verification, weather and general monitoring purposes.
- Internal access tracks, hardstand areas and other associated on-site infrastructure.
- Underground electrical cabling linking the wind turbines to each other and the on-site substation.
- An on-site substation.
- Temporary construction facilities, including a concrete batching plant, construction compound, laydown areas and gravel borrow pits.
- Minor upgrades to local roads, as required for the delivery, installation and maintenance of wind turbines and the related facilities.
- An operations and maintenance facility incorporating a control room and equipment storage facilities.
- Up to approximately 8 km of overhead double circuit 132 kV transmission line from the on-site substation into Western Power's existing Southwest Interconnected System (SWIS) transmission network.
- Cut-in/cut-out connection arrangements to the Pinjar Eneabba/Emu Downs Transmission Line (PJR-ENB/EMD 81) at the point of connection to the SWIS.
- Underground fibre optic cabling of up to approximately 1.5 km in length from the point of connection at the SWIS to the existing Western Power-operated Cataby Substation.

The Project was referred to the Department of Climate Change, Energy, the Environment and Water (DCCEEW) in August 2023 (EPBC Act referral 2023/09639) under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) due to potential impacts on matters of national environmental significance (MNES). DCCEEW advised on 13 November 2023 that the Project is a Controlled Action and required assessment via preliminary documentation (PD) and approval under the EPBC Act.

An application to clear native vegetation was also assessed by the Department of Water and Environmental Regulation's (DWER) under the *Environmental Protection Act 1986* (EP Act). The Clearing Permit (DWER reference CPS 10418/1) was granted on 30 May 2025 with conditions requiring an Offset Management Plan that addresses the requirements of *A Guide to Preparing Revegetation Plans for Clearing Permits* (DWER 2018).



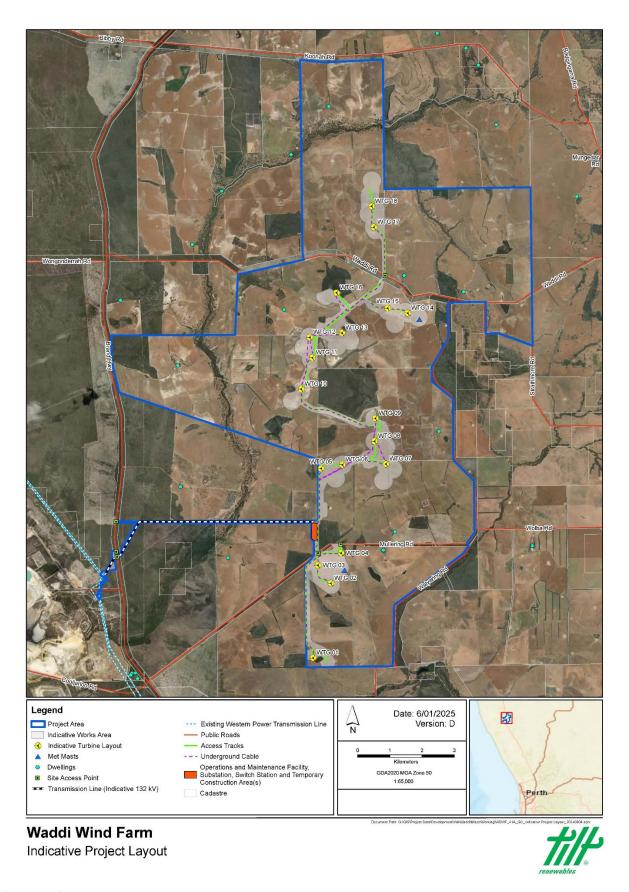


Figure 1: Project area location



### 1.1 Offset Requirements

Offsets are required under the EPBC Act to compensate for significant impacts to MNES, namely the removal of 5.33 ha of native foraging habitat for Endangered, Carnaby's cockatoo (*Zanda latirostris*), together with the loss of 36 potential roosting and 3 potential breeding trees

Offsets are also required pursuant to the EP Act to compensate for potential impacts to up to 5.5 ha of native vegetation, 5.4 ha<sup>1</sup> of which provides potential foraging habitat for Carnaby's cockatoo.

Additional details regarding the impact area and offset requirements are set out in Section 3.

### 1.2 Purpose of the OMP

This offset management plan (OMP) has been developed to facilitate the implementation of the Project's Offset Management Strategy (Surefire Environmental Pty Ltd 2025) in accordance with:

- The Commonwealth:
  - o EPBC Act Environmental Offsets Policy (DSEWPC 2012), and
  - o Environmental Management Plan Guidelines (DCCEEW 2024).
- The Western Australian:
  - Clearing Permit (CPS10418/1) issued for the Project in May 2025 (Appendix A), and
  - o DWER's A Guide to Preparing Revegetation Plans for Clearing Permits (DWER 2018).

This plan provides guidance for implementation of the offsets identified within the Offset Strategy to achieve a conservation gain for impacted MNES and native vegetation.

<sup>&</sup>lt;sup>1</sup> Rounded up from 5.33 ha in accordance with the WA Environmental Offsets Calculator following feedback from the Department of Water and Environmental Regulation. For further detail as to how the 5.33 ha impact area has been calculated, refer **Section 3**.



# 2 Suitably Qualified Environmental Specialist and Declaration of Accuracy

This plan has been prepared by a suitably qualified 'environmental specialist' as defined in the Clearing Permit as meaning; a person who holds a tertiary qualification in environmental science or equivalent, and has a minimum of two (2) years' work experience relevant to the type of environmental advice that an environmental specialist is required to provide under this permit, or who is approved by the CEO as a suitable environmental specialist.

This OMP was developed by Sue Brand of Surefire Environmental Pty Ltd with inputs from:

- Jeromy Claridge and Selina Carruthers of Attexo Group Pty Ltd; and
- Margaret McCormack and Giles Glasson of RPS AAP Consulting Pty Ltd.

**Table 1** outlines the professional and industry experience the author, Sue Brand, possesses and how this satisfies the definition of a suitably qualified environmental specialist.

Table 1 Suitably qualified environmental specialist

Requirement	Evidence
Tertiary qualification in environmental science or equivalent	Bachelor of Science, Post Graduate Diploma in Environmental Impact Assessment, Master of Science (Environmental Science)
At least 2 years of relevant experience	30 years' experience as an environmental scientist, more than 15 years with overseeing flora, vegetation and fauna surveys, as well as the preparation and overseeing the implementation of revegetation/restoration plans associated with clearing permits and EPBC Act approvals

#### **Declaration of accuracy**

In making this declaration, I am aware that section 491 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) makes it an offence in certain circumstances to knowingly provide false or misleading information or documents to specified persons who are known to be performing a duty or carrying out a function under the EPBC Act or the *Environment Protection and Biodiversity Conservation Regulations 2000* (Cth). The offence is punishable on conviction by imprisonment or a fine, or both. I am authorised to bind the approval holder to this declaration and that I have no knowledge of that authorisation being revoked at the time of making this declaration.

Signed	
Full name	
Organisation	
Date /	1



### 3 Impact Area Description

Land within and surrounding the impact area is primarily comprised of privately owned agricultural land used for grazing (sheep and some cattle) and dryland cropping. The impact area also intersects a Department of Biodiversity, Conservation and Attractions (DBCA) managed reserve (Reserve 41986), a Shire of Dandaragan managed reserve (Reserve 27216), and an active Mining Lease (M 70/1398) for the Cooljarloo Mine held by Tronox.

Native vegetation is present throughout the impact area within patches and low-lying areas including valleys, creek lines, and along roadsides. The remnant vegetation patches generally consist of native grasses, remnant trees, heath woodlands and shrubland.

Only one MNES was identified to incur significant residual impacts because of the Project. Carnaby's cockatoo (*Zanda latirostris*) is listed as Endangered under the EPBC Act and will be impacted by the Project through the loss of foraging, potential roosting and potential breeding habitat. The quantified impacts for each habitat type are presented in **Table 2**. The scope of the OMP is restricted to construction related impacts (e.g. unavoidable clearing of habitat) and does not consider impacts associated with operation of the Project.

Table 2: Impacts to Carnaby's cockatoo habitat values

Habitat type	Residual impact description	Quantified impact						
Foraging habitat	<ul> <li>1.21 ha of Proteaceous heath</li> <li>3.88 ha of banksia low open woodland</li> <li>0.22 ha of marri (<i>Corymbia calophylla</i>) woodland</li> <li>0.02 ha of coastal blackbutt (<i>Eucalyptus todtiana</i>) woodland</li> </ul>							
	3 marri trees 21 pine trees (non-native) 11 planted trees (non-native eucalypts)	35 tall trees						
Potential Breeding Habitat	3 marri trees, none of which contain suitable hollows for breeding Carnaby's cockatoos	or 3 marri trees						
Potential Roosting Habitat	3 marri trees 1 dead tree 21 pine trees (non-native) 11 planted trees (non-native eucalypts)	36 tall trees						

As presented in the Offset Management Strategy (Surefire Environmental Pty Ltd 2025) and preliminary documentation (RPS 2025a), the Project area has been subject to extensive site-specific ecological investigations from 2008 to 2025. Results from surveys informed the impact area habitat quality scoring for Carnaby's cockatoo foraging habitat.

Habitat quality assessments and scoring have been undertaken for the foraging habitat outlined in **Table 2** utilising the scoring system outlined in *Waddi Wind Farm – Assessment of Potential Offset Sites* prepared by Bamford Consulting Ecologists (BCE) (2025a). The habitat quality score for foraging habitat is presented in **Table 3** with the rationale for the habitat quality score outlined in **Table 4**. Habitat quality assessment and scoring has not been undertaken for potential breeding and potential roosting habitat as revegetation actions (**Section 11.3**) and nest box installation (**Section 11.6**) mitigate these impacts.

For clarity, while 5.5 ha of <u>native</u> vegetation is proposed to be cleared as part of the proposed development, only 5.33 ha provides suitable <u>native</u> foraging habitat for Carnaby's cockatoo. The remaining 0.18 ha of native vegetation comprises 0.09 ha of Melaleuca Low Open Woodland and 0.09 ha of planted tree canopy with native



species underneath, neither of which provide suitable foraging habitat for Carnaby's cockatoo. A total of 35 tall trees also provide foraging habitat. Of those trees, three (native) marri trees are included in the 5.33 ha of <u>native</u> foraging habitat. The combined canopy of the remaining 21 pine trees and 11 non-native eucalypts approximates 0.18 ha.

Table 3: Impact area habitat quality score

Vegetation type / Tree	Area / number of trees	Foragine score	g habita	t quality	,	Multiplication of area by foraging habitat	Average weighted		
species		Site condition	Site context	Species density	Tota	quality score	foraging habitat quality score		
Banksia Low Open Woodland	3.88 ha	3	0	1	4	15.52 ha	5^		
Corymbia calophylla Woodland	0.22 ha	3	0	1	4	0.88 ha			
Eucalyptus todtiana Woodland	0.02 ha	1	0	0	1	0.02 ha	-		
Proteaceous Heath	1.21 ha	6	0	1	7	8.47 ha	-		
Pine trees	21 trees (approximately 0.06 ha of combined canopy)		0	1	5	0.30 ha	-		
Planted trees (non- native eucalypts)	11 trees (approximately 0.12 ha of combined canopy)		0	0	1	0.12 ha	-		
TOTALS	5.51 ha					25.31 ha	_		

<sup>^</sup> Average weighted foraging habitat score was rounded from 4.59.



#### Table 4 Impact area habitat quality scores justification

ree specie	type /Vegetations condition		a Area trees	/ Humber	oi Foragii	ng nabita	it quality	SCOLE	Rationale for foraging habitat quality scores
тоо ороск		(114)	.,000		Site condition	Site n context	Species density	Tota	
arnaby's co	ckatoo foraging hab	itat (native veg	etation)						
	/ Open Excellent	3.10	3.88 ha		3	0	1	4	Site condition
oodland	Very Good	0.18							<ul> <li>A score of 3 out of 6 was applied as the vegetation is considered representative of low to moderate foraging value vegetation described in BCE's (2025a) site condition scoring to "Woodland with tree banksias 5-20% projected foliage cover".</li> </ul>
	Very Go Excellent	od to 0.22							<ul> <li>This was based on the flora and vegetation survey results (Outback Ecology 2014, Ecologia Environment 2016, RPS 2023):</li> <li>The vegetation is in Good to Excellent condition</li> </ul>
	Good to Ve	ry Good 0.28							<ul> <li>The vegetation type descriptions include foraging plants suitable for Carnaby's cockatoo, including Banksia attenuata, Banksia ilicifolia, Banksia menziesii, Banksia priori Eucalyptus todtiana, Hakea costata, Hakea ruscifolia, Mesomelaena pseudostygia and Xanthorrhoea preissii (Department of Agriculture, Water and the Environment (DA 2022, Groom 2011)</li> </ul>
	Good	0.10	_						The projected foliage cover of foraging plants is estimated to be between 0.25 – 20% cover. This was selected as most vegetation type descriptions' structural formation cla (% cover) with foraging plants suitable for Carnaby's cockatoo were low open woodland (0.25 – 20% cover), whereas foraging plants were observed less frequently in a structural formation classes (20 – 50% and 50 – 80%). The vegetation type descriptions' structural formation classes (% cover) with foraging plants suitable for Carna cockatoo included:
									■ 0.25 – 20% cover:
									Banksia attenuata and Banksia menziesii low open woodland (with scattered Eucalyptus todtiana and Banksia ilicifolia)
									Banksia attenuata and Banksia menziesii low open woodland (with scattered Banksia prionotes and Eucalyptus todtiana)
									Eucalyptus todtiana, Banksia attenuata, Banksia menziesii, Nuytsia floribunda low open woodland  Banksia attenuata an Fusahatta tattiana lawa anan ayar dha
									<ul> <li>Banksia attenuata or Eucalyptus todtiana low open woodland/isolated trees</li> <li>Low Open Woodland of Eucalyptus todtiana with Banksia attenuata and Banksia menziesii and/or Banksia prionotes</li> </ul>
									<ul> <li>Low Open Woodland of Eucalyptus todtiana</li> <li>Low Open Woodland of Eucalyptus todtiana</li> </ul>
									<ul> <li>Low Open Woodland of Banksia attenuata and Banksia menziesii with occasional emergent Banksia ilicifolia</li> </ul>
									Mesomelaena pseudostygia sparse sedgeland
									■ 20 – 50% cover:
									<ul> <li>Open mid heathland of Banksia shuttleworthiana, Eremaea pauciflora, Conospermum stoechadis, Conostephium magnum (P4), Conostephium p Hakea ruscifolia, Jacksonia nutans, Lysinema pentapetalum, Pimelea sulphurea, Stirlingia latifolia</li> </ul>
									<ul> <li>Banksia menziesii, Banksia attenuata, Eucalyptus todtiana low woodland</li> </ul>
									<ul> <li>Allocasuarina humilis, Calothamnus quadrifidus subsp. quadrifidus, Leptospermum erubescens, Xanthorrhoea preissii tall open shrubland</li> </ul>
									<ul> <li>Mesomelaena pseudostygia open sedgeland on grey sandy clay loam</li> </ul>
									<ul> <li>Waitzia suaveolens, Anigozanthos humilis, Conostylis setigera open forbland and Mesomelaena pseudostygia open sedgeland on grey sandy clay l</li> </ul>
									<ul> <li>Open Sedgeland/Herbland including Dasypogon obliquifolius, Mesomelaena pseudostygia, Lepidobolus preissianus and/or Conostylis juncea on pai sandy flats</li> </ul>
									<ul> <li>Low Open Shrubland/Sedgeland of Hibbertia hypericoides, Calytrix angulata, Dasypogon obliquifolius, Patersonia occidentalis and Mesome pseudostygiaon pale grey sandy flats</li> </ul>
									■ 50 – 80% cover:
									<ul> <li>Mid shrubland that may include Babingtonia grandiflora, Banksia shuttleworthiana, Calothamnus sanguineus, Conospermum stoechadis, Hakea ruse Hibbertia hypericoides, Lambertia multiflora var. multiflora, Petrophile shuttleworthiana</li> </ul>
									<ul> <li>Mixed Myrtaceous and Proteaceous Heath including Allocasuarina humilis, Hakea costata, Melaleuca spp., Eremaea pauciflora, Conospermum stoed and Hibbertia hypericoides</li> </ul>
									Low Open Forest of Banksia attenuata, Banksia prionotes and/or Banksia attenuate
									Shrubland of Xanthorrhoea preissii and Leptospermum erubescens  Site context
									<ul> <li>A score of 0 out of 3 was applied as the native vegetation area of 3.88 ha is 0.010% of the native vegetation containing potential foraging habitat mapped within a 12 kilometres radius of the project area (40,284.77 ha). A site context score of 0 is applied where the native vegetation area is &lt; 0.1% of the native vegetation within the local area where Caracockatoo breeding is known or likely to occur (BCE 2025a)</li> </ul>
									<ul> <li>Local breeding of Carnaby's cockatoo is known to occur within a 12 km radius of the project area, therefore the site context score was based on the percentages where local breek known or likely (BCE 2025a). One confirmed nesting tree and one potential nesting tree were recorded immediately adjacent to the Project Area's eastern boundary along Minyulo and two potential nesting trees were recorded in the Project Area's north-eastern extent (BCE 2025b)</li> </ul>
									<ul> <li>Within a 12 km radius of the project area, there is approximately 40,284.77 ha of government mapped Native Vegetation Extent (DPIRD-005) intersected by Vegetation Association 999, 1030, 1031 and 1035 (DPIRD-006) (RPS 2025a). The key foraging features in the vegetation associations for Carnaby's cockatoos would be seeds, flowers and nectar of proteaceous plant species in native heathland and woodland (DAWE 2022). The 12 km radius of the project area is representative of Shepherd and Bamford's (2025a) local area km radius of the centre point of a study site, as the native vegetation to be cleared occurs throughout the project area and the project area boundary ranges from 3 km to 10 km central point in the project area</li> <li>Species density</li> </ul>
									A score of 1 out of 1 was applied due to observations of Carnaby's cockatoos within the Project area during the 2024-2025 utilisation survey (Shepherd and Bamford 2025b), included the control of t
									o Foraging chew marks observed on banksia consistent with Carnaby's cockatoo, with banksia heath frequently targeted
									A foraging sign was recorded proximate to the proposed transmission line within Banksia Low Open Woodland vegetation type  Complete seekstress were recorded regularly within the Project area during the survey visits in August. September October December 2024 and January 2025.
									<ul> <li>Carnaby's cockatoos were recorded regularly within the Project area during the survey visits in August, September, October, December 2024 and January 2025</li> </ul>



Vegetation typ			ea Area	of Foragi	Rationale for foraging habitat quality scores			
Tree species	condition	(ha)	trees	Site conditio	Site on context	Species density	Total	
								<ul> <li>A score of 3 out of 6 was applied as the vegetation is considered representative of low to moderate foraging value vegetation described in Shepherd and Bamford's (2025a) site conditions scoring table, "Eucalypt Woodland with Marri &lt; 10% projected foliage cover"</li> </ul>
								This was based on the flora and vegetation survey results (Outback Ecology 2014):
								<ul> <li>The vegetation is in Degraded condition</li> <li>The vegetation type description includes a foraging plant suitable for Carnaby's cockatoo, Corymbia calophylla (DAWE 2022, Groom 2011)</li> </ul>
								<ul> <li>The projected foliage cover of the foraging plant is estimated to be between 0.25 – 20% cover. This was selected as the vegetation type description's structural formation class (% cover) with a foraging plant suitable for Carnaby's cockatoo was open woodland (0.25 – 20% cover):</li> </ul>
								Open Woodland of Corymbia calophylla with Eucalyptus rudis (in creekline)  Site context.
								<ul> <li>A score of 0 out of 3 was applied as the native vegetation area of 0.22 ha is 0.001% of the native vegetation containing potential foraging habitat mapped within a 12 km radius of project area (40,284.77 ha). A site context score of 0 is applied where the native vegetation area is &lt; 0.1% of the native vegetation within the local area where Carnaby's cockatoo breed is known or likely to occur (Shepherd and Bamford 2025a)</li> </ul>
								Species density  A secret of 1 out of 1 was applied due to the cheartestons of Carneby's cocketoes within the Project area during the 2024-2025 utilization survey (Shaphard and Ramford 2025b), including
								<ul> <li>A score of 1 out of 1 was applied due to the observations of Carnaby's cockatoos within the Project area during the 2024-2025 utilisation survey (Shepherd and Bamford 2025b), including properties of 1 out of 1 was applied due to the observations of Carnaby's cockatoos within the Project area during the 2024-2025 utilisation survey (Shepherd and Bamford 2025b), including the 2024-2025 utilisation survey (Shepherd and Bamford 2025b), including the 2024-2025 utilisation survey (Shepherd and Bamford 2025b), including the 2024-2025 utilisation survey (Shepherd and Bamford 2025b), including the 2024-2025 utilisation survey (Shepherd and Bamford 2025b), including the 2024-2025 utilisation survey (Shepherd and Bamford 2025b), including the 2024-2025 utilisation survey (Shepherd and Bamford 2025b), including the 2024-2025 utilisation survey (Shepherd and Bamford 2025b), including the 2024-2025 utilisation survey (Shepherd and Bamford 2025b).</li> </ul>
								<ul> <li>A foraging sign was recorded proximate to the proposed transmission line within Banksia Low Open Woodland vegetation type, to the west of the Corymbia calophylla Woodland area</li> </ul>
								<ul> <li>Carnaby's cockatoos were recorded regularly within the Project area during the survey visits in August, September, October, December 2024 and January 2025.</li> </ul>
Eucalyptus todti	iana Completely	0.02	0.02 ha	1	0	0	1 3	Site condition
Woodland	Degraded							<ul> <li>A score of 1 out of 6 was applied as the vegetation is considered representative of negligible to low foraging value vegetation described in Shepherd and Bamford's (2025a) site condit scoring table, "Scattered specimens of known food plants but projected foliage cover of these is &lt; 2%"</li> </ul>
								This was based on the flora and vegetation survey results (Outback Ecology 2014):
								<ul> <li>The vegetation is in Completely Degraded condition</li> <li>The vegetation type description includes foraging plants suitable for Carnaby's cockatoo, <i>Eucalyptus todtiana</i> and *Raphanus raphanistrum (wild radish) (DAWE 2022, Ground Properties of the vegetation type description includes foraging plants suitable for Carnaby's cockatoo, <i>Eucalyptus todtiana</i> and *Raphanus raphanistrum (wild radish) (DAWE 2022, Ground Properties of the vegetation type description includes foraging plants suitable for Carnaby's cockatoo, <i>Eucalyptus todtiana</i> and *Raphanus raphanistrum (wild radish) (DAWE 2022, Ground Properties of the vegetation type description includes foraging plants suitable for Carnaby's cockatoo, <i>Eucalyptus todtiana</i> and *Raphanus raphanistrum (wild radish) (DAWE 2022, Ground Properties of the vegetation type description includes foraging plants suitable for Carnaby's cockatoo, <i>Eucalyptus todtiana</i> and *Raphanus raphanistrum (wild radish) (DAWE 2022, Ground Properties of the vegetation type description includes for the vegetation type description type description includes for the vegetation type description type d</li></ul>
								2011)
								<ul> <li>The projected foliage cover of the foraging plant is estimated to be between 0.25 – 20% cover. This was selected as the vegetation type description's structural formation clas (% cover) with a foraging plant suitable for Carnaby's cockatoo was woodland/open woodland (20 – 50% / 0.25 – 20% cover) and the vegetation is comprised of isolated tr within agricultural paddocks</li> </ul>
								<ul> <li>20 – 50% / 0.25 – 20% cover: Eucalyptus todtiana woodland/open woodland over pasture species including *Bromus diandrus, *Hordeum leporinum, *Ma pseudolavatera and *Raphanus raphanistrum</li> </ul>
							3	Site context
							•	The site context score is moderated to 0 as the site condition score is 1
							9	Species density
								The species density score is moderated to 0 as the site condition score is 1
Proteaceous heath	Excellent	0.95	1.21 ha	6	0	1	7 3	Site condition  A score of 6 out of 6 was applied as the vegetation is considered representative of high foraging value vegetation described in Shepherd and Bamford's (2025a) site condition scori
	Good	0.08	_					table, "Kwongan/ Shrubland in which species of foraging value, such as shrubby banksias, have >60% projected foliage cover"
	Degraded	0.15					•	This was based on the hora and vegetation survey results (Outback Ecology 2014, NPS 2023).      The vegetation is in Completely Degraded to Excellent condition
	Completely Degraded	0.04	_					The vegetation type descriptions include foraging plants suitable for Carnaby's cockatoo, including Banksia carlinoides, Banksia fraseri subsp. crebra, Eucalyptus todtiana, Hala auriculata, Hakea conchifolia, Hakea incrassata, Hakea lissocarpha, Hakea spathulata, Lambertia multiflora var. multiflora and Mesomelaena pseudostygia (DAWE 2022, Gro
	Completely		_					2011)  The projected foliage cover of foraging plants is estimated to be between 80 – 100% cover. This was selected as most vegetation type descriptions' structural formation class
	Completely Degraded Cleared	and						(% cover) with foraging plants suitable for Carnaby's cockatoo were closed heath (80 – 100% cover), whereas foraging plants were observed less frequently in other structural formation classes (0.25 – 20% to 50 – 80%). The vegetation type descriptions' structural formation classes (% cover) with foraging plants suitable for Carnaby's cockar included:
	Cleared	-	_					■ 0.25 – 20% / 20 – 50% cover:
			_					<ul> <li>Hakea auriculata, Hakea lissocarpha, Petrophile shuttleworthiana, Xanthorrhoea drummondii mid open/sparse heathland</li> </ul>
								■ 20 – 50% cover:
								Tall open shrubland of Xanthorrhoea drummondii (with occasional emergent Eucalyptus todtiana low trees)
								Open sedgeland including Caustis dioica, Ecdeiocolea monostachya, Lepidosperma pubisquameum, Mesomelaena pseudostygia, Tetraria octandra  Open Sedesland including Caustis dioica, Ecdeiocolea monostachya, Lepidosperma pubisquameum, Mesomelaena pseudostygia, Tetraria octandra  Open Sedesland including Caustis dioica, Ecdeiocolea monostachya, Lepidosperma pubisquameum, Mesomelaena pseudostygia, Tetraria octandra  Open Sedesland including Caustis dioica, Ecdeiocolea monostachya, Lepidosperma pubisquameum, Mesomelaena pseudostygia, Tetraria octandra  Open Sedesland including Caustis dioica, Ecdeiocolea monostachya, Lepidosperma pubisquameum, Mesomelaena pseudostygia, Tetraria octandra
								<ul> <li>Open Sedgeland of Mesomelaena pseudostygia and Schoenus clandestinus</li> <li>50 – 80% cover:</li> </ul>
								Sedgeland/Herbland of species including Tetraria octandra, Conostylis teretifolia subsp. teretifolia, Chordifex sinuosus, Mesomelaena pseudostygia a
								Schoenus clandestinus with Austrostipa compressa/hemipogon on lateritic sandy hilltops  80 – 100% cover:
								<ul> <li>Mid closed heath including Banksia carlinoides, Banksia fraseri subsp. crebra, Banksia glaucifolia, Banksia sphaerocarpa var. sphaerocarpa, Banksia shuttleworthiana, Calothamnus torulosus, Daviesia epiphyllum, Eremaea pauciflora, Gastrolobium oxylobioides, Hakea auriculata, Hakea conchifolia, Halea</li> </ul>
								incrassata, Hakea lissocarpha, Lambertia multiflora var. multiflora, Melaleuca clavifolia, Melaleuca trichophylla and Petrophile shuttleworthiana, Petrop striata

Vegetation type /Vegetation		of Foraging h	of Foraging habitat quality score Rationale for foraging habitat quality scores		ore Rationale for foraging habitat quality scores
Free species condition	(ha) trees	Site S condition c		cies To	otal Control of the C
					<ul> <li>Closed Proteaceous Heath including species such as Petrophile shuttleworthiana, Banksia sphaerocarpa var. sphaerocarpa, Calothamnus hirs Eremaea pauciflora var. ionchophylla, Banksia glaucifolia, Beaufortia bracteosa, Banksia shuttleworthiana, Hakea conchifolia, Hakea incrassata, Melal clavifolia, Melaleuca trichophylla and Lambertia multiflora var. multiflora</li> </ul>
					<ul> <li>Closed Heathland of Lambertia multiflora var. multiflora, Petrophila macrostachya, Hakea spathulata, Hakea incrassata, Xanthorrhoea drummo Calothamnus hirsutus</li> </ul>
					Site context
					<ul> <li>A score of 0 out of 3 was applied as the native vegetation area of 1.21 ha is 0.003% of the native vegetation containing potential foraging habitat mapped within a 12 km radius of project area (40,284.77 ha). A site context score of 0 is applied where the native vegetation area is &lt; 0.1% of the native vegetation within the local area where Carnaby's cockatoo bree is known or likely to occur (Shepherd and Bamford 2025a)</li> <li>Species density</li> </ul>
					<ul> <li>A score of 1 out of 1 was applied due to the observations of Carnaby's cockatoos within the project area during the 2024-2025 utilisation survey (Shepherd and Bamford 2025b), inclu</li> <li>Foraging chew marks observed on hakea and banksia consistent with Carnaby's cockatoo, with banksia heath frequently targeted</li> </ul>
					Several foraging signs were recorded in proteaceous heath vegetation within and outside the project area
	•				o Carnaby's cockatoos were recorded regularly within the project area during the survey visits in August, September, October, December 2024 and January 2025
ine trees	21 trees (approxim	•	1	5	Site condition
	0.06ha of comb canopy)	oined			<ul> <li>A score of 4 out of 6 was applied as the vegetation is considered representative of moderate foraging value vegetation described in Shepherd and Bamford's (2025a) site condition system. Pine plantations have a suggested site condition score of 4 or 5 out of 6 as pines are planted in high density so food supply per hectare can be high. However, a score of considered for the 21 pine trees as (Terrestrial Ecosystems 2022, RPS 2023):</li> </ul>
					The vegetation is in Completely Degraded condition
					<ul> <li>The 11 pine trees and estimated 10 pine trees along two sections of lot boundaries north of Mullering Road were planted prior to 2000 (approximately) as screening between paddocks. Therefore, the trees are at least 25 years old.</li> </ul>
					<ul> <li>The pines were not planted as part of a pine plantation; therefore, they do not provide Carnaby's cockatoo with a high density of food supply</li> </ul>
					<ul> <li>The pine trees are not at risk of being harvested as part of a pine plantation. Therefore, the site condition score was not moderated to account for this</li> </ul>
					Site context
					A score of 0 out of 3 was applied as the approximate pine trees canopy area of 0.06 ha is 0.0001% of the native vegetation containing potential foraging habitat mapped within a radius of the project area (40,284.77 ha). A site context score of 0 is applied where the native vegetation area is < 0.1% of the native vegetation within the local area where Carr cockatoo breeding is known or likely to occur (Shepherd and Bamford 2025a)
					The pine trees do not represent a significant proportion of foraging habitat in the landscape
					Species density
					A score of 1 out of 1 was applied due to the observations of Carnaby's cockatoos within the Project area during the 2024-2025 utilisation survey (Shepherd and Bamford 2025b), included the control of the observations of Carnaby's cockatoos within the Project area during the 2024-2025 utilisation survey (Shepherd and Bamford 2025b), included the control of the observations of Carnaby's cockatoos within the Project area during the 2024-2025 utilisation survey (Shepherd and Bamford 2025b), included the control of the control
					<ul> <li>Foraging chew marks observed on pines consistent with Carnaby's cockatoo. On several occasions, Carnaby's cockatoos were observed feeding and roosting on pines south and north of the project area</li> </ul>
					o Carnaby's cockatoos were recorded regularly within the Project area during the survey visits in August, September, October, December 2024 and January 2025
lanted trees (non-	11 trees (approxim	•	0	1	Site condition
ative eucalypts)	0.12 ha or comb canopy)	pined			<ul> <li>A score of 1 out of 6 was applied as the vegetation is considered representative of negligible to low foraging value vegetation described in Shepherd and Bamford's (2025a) site cor scoring table, "Scattered specimens of known food plants but projected foliage cover of these is &lt; 2%"</li> </ul>
					<ul> <li>This was based on the flora and vegetation survey results (Terrestrial Ecosystems 2022, RPS 2023):</li> </ul>
					<ul> <li>The vegetation is comprised of isolated screening trees within agricultural paddocks</li> </ul>
					<ul> <li>The species of the planted non-native Eucalypt trees were not identified, as such it is possible that one or more of the Eucalypt trees may provide limited foraging habing Carnaby's cockatoo (Groom 2011)</li> </ul>
					Site context
					The site context score is moderated to 0 as the site condition score is 1

• The species density score is moderated to 0 as the site condition score is 1



### 4 Relevant Legislation

A summary of the key legislation and policies pertaining to the design and implementation of the offset area is provided in the following sections.

### 4.1 Environment Protection and Biodiversity Conservation Act 1999 (Cth)

The Commonwealth EPBC Act establishes a regulatory framework to oversee proposed activities that have the potential to impact MNES, including threatened ecological communities, species and heritage sites of both national and international importance. The EPBC Act provides for the use of environmental offsets in circumstances where significant impacts on MNES cannot otherwise be adequately avoided, reduced or mitigated.

The Project's EPBC Act approval requires the proponent to offset significant residual impacts to MNES, specifically Carnaby's cockatoo foraging, potential roosting and potential breeding habitat.

#### 4.1.1 Environmental Offsets Policy

The EPBC Act Environmental Offsets Policy (DSEWPC 2012a) outlines the Australian Government's approach to the use of environmental offsets under the EPBC Act. The policy outlines eight overarching principles to be applied in determining the suitability of an offset proposed for impacted MNES. These eight principles and how the OMP document has incorporated these are summarised in **Section 5.1**.

#### 4.1.2 Offsets Assessment Guide

Offset assessment methods were assessed and applied the DCCEEW *Offset Assessment Guide* (OAG). The OAG is a calculation tool developed to assist DCCEEW in the assessment of the suitability of offset proposals and to assist proponents with planning and estimating future offset requirements.

The key components of the OAG are the Impact Calculator and Offset Calculator. Once the inputs have been provided for the Impact Calculator and Offset Calculator, the OAG provides the results as a percentage of impact offset, where >100% indicates that all the impact is achieved through a direct offset.

The habitat quality scores on both impact area and offset area have been determined by applying the BCE (2025a) scoring system for the assessment of foraging value of vegetation for black cockatoos.

The OAG was used to assist with identifying the proposed offset area, as well as the restoration program that will be implemented when the offset is secured by the proponent to provide additional Carnaby's cockatoo foraging, potential breeding and potential roosting habitat to counteract the loss of significant habitat during the wind farm construction process.

Full details of the EPBC Act offset calculators are provided in Appendix B of this OMP.

### 4.2 Environmental Protection Act 1986 (WA)

The Western Australian EP Act seeks to provide for the prevention, control and abatement of pollution and environmental harm and for the conservation, preservation, protection, enhancement and management of the environment. Part V of the EP Act sets out the regulatory framework for the removal of native vegetation. An application for the clearance of 5.5 ha of native vegetation associated with the Project was lodged with DWER on 17 November 2023 and commenced on 22 June 2025. The clearing permit is provided in **Appendix A**.

#### 4.2.1 Western Australia Environmental Offsets Policy

The Western Australian *Government's Environmental Offsets Policy* (GoWA, 2011) serves as an overarching framework for environmental offset assessments for State matters. Environmental offsets are most often applied



to proposals subject to environmental impact assessment and as a condition of permits for clearing of native vegetation under the EP Act.

Under this policy, it is intended that as far as possible there should be minimal duplication between State and Commonwealth requirements for environmental offsets. The Project impacts both State and Commonwealth matters including the clearing of native vegetation under Part V of the EP Act which is effectively a significant residual impact to Carnaby's cockatoo habitat under the EPBC Act. The proponent proposes to use a single offset package to address Commonwealth requirements under the EPBC Act, as well as State offset requirements pursuant to the EP Act. The offset areas for State and Federal purposes are illustrated in Figure 2.

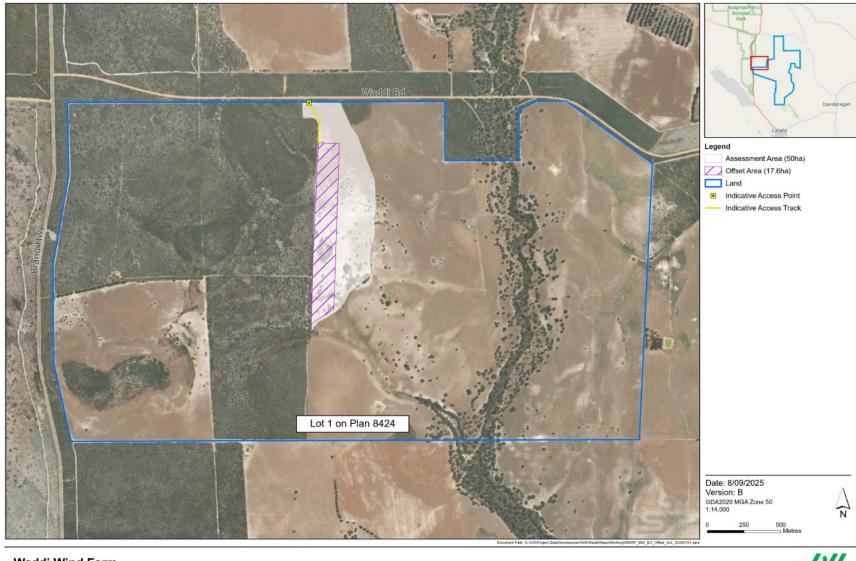
The policy sets out six principles which underpin the Western Australian Government's assessment and decision-making processes in relation to the use of environmental offsets. These principles and how they are incorporated in the OMP is summarised in **Table 5**.

#### 4.2.2 Western Australia Offset Guidelines and Calculator

The Western Australian *Environmental Offsets Guidelines* (GoWA 2014) aims to provide clarity and consistency in determining and applying environmental offsets. The Western *Australian Environmental Offsets Calculator* (DWER 2021a) and accompanying *Environmental Offsets Metric Guideline* (DWER, 2021b) form a supplement to the guidelines and are an assessment tool to help decision-makers, government officers, industry and the community quantify environmental offsets.

A preliminary calculation using the Western Australia Offset Guidelines and Calculator was undertaken in conjunction with DWER during assessment of the native vegetation clearing permit application for the Project. This required land acquisition and rehabilitation of 17.6 ha of 'Degraded vegetation containing low quality foraging habitat for the Carnaby's cockatoo in the local area' and placing the land into a conservation covenant in perpetuity.





#### Waddi Wind Farm

Proposed State and Commonwealth Offsets

##

Figure 2: Proposed Commonwealth and State offset area



## 5 Environmental Offsets Policy Principles

### 5.1 EPBC Act Environmental Offsets Policy

This OMP has been developed to demonstrate the suitability of the offset area and address the overarching principles within the EPBC Act Environmental Offsets Policy (DSEWPC 2012). The principles and where they have been addressed in this document are presented in **Table 5**.

Table 5 EPBC Offsets Policy principles addressed in this OMP

Principle Number	Description	Relevant Section in the OMP
1	Deliver an overall conservation outcome that improves or maintains the viability of the aspect of the environment that is protected by national environment law and affected by the proposed action.	and the scoring of Carnaby's cockatoo habitat values based on the methodology developed by BCE (2025a) the proposed restoration of the
2	Be built around direct offsets but may include other compensatory measures.	The proposed offset is a direct offset, with the OAG indicating that the proposed site will offset more than 100% of the impact and thus will meet the > 90% direct offset requirement.
3	Be in proportion to the level of statutory protection that applies to the protected matter.	
		<ul> <li>The installation of a minimum of 7 artificial nesting boxes will occur to provide a shorter-term option until planted trees reach a suitable diameter and height to produce hollows of a size and orientation preferred by Carnaby's cockatoos for nesting.</li> </ul>
		<ul> <li>The restoration of the offset site will also provide habitat and protection for flora and fauna species in addition to the Carnaby's cockatoo. The restored area will have a conservation covenant placed over the site to ensure its ongoing protection for conservation purposes in perpetuity.</li> </ul>
4	Be of a size and scale proportionate to the residual impacts on the protected matter.	
5	Effectively account for and manage the risks of the offset not succeeding.	Offset completion criteria and interim milestones has been developed to measure the success of management actions (Table 16).
		<ul> <li>This OMP includes a monitoring program of the offset and external reference areas to evaluate success of management measures outlined in this OMP, identifying triggers for action (Section 11.5.1) and implementing appropriate corrective actions (such as infill planting or seeding) (Section 11.5.2).</li> </ul>
		<ul> <li>This OMP sets clear timeframes for identifying and implementing solutions in circumstances where monitoring identifies that management outcomes are not being met (Section 13).</li> </ul>
6	Be additional to what is already required, determined by law or planning regulations or agreed to under other schemes or programs.	same proposed action and the same matter, the proposed offset has



Principle Number	Description	Relevant Section in the OMP
		methodology developed by BCE, the EPBC Act offset obligation involves restoration of 17.6 ha of pastureland from a habitat quality score of 2/10 to a minimum of 5/10. A minimum of 7 artificial Carnaby's cockatoo will also be installed to provide potential nesting habitat in the interim as vegetation within the offset area matures.
		<ul> <li>Rather than seeking to protect established vegetation, this OMP provides for the rehabilitation of 17.6 ha of degraded pastureland to foraging, roosting and nesting habitat for Carnaby's cockatoo adjacent to known Carnaby's cockatoo foraging habitat. Given the Project involves the unavoidable clearing of 5.5 ha of potential habitat, the rehabilitation of 17.6 ha of pasture to potential habitat will result in a net increase in viable Carnaby's cockatoo habitat within the local area.</li> </ul>
		<ul> <li>The offset area will be protected by a conservation covenant to ensure its ongoing protection for conservation purposes in perpetuity.</li> </ul>
7	Be efficient, effective, timely, transparent, scientifically robust and reasonable	<ul> <li>Identification of the proposed offset site and development of the offset proposal have been underpinned by expert technical analysis to inform a scientifically robust approach, as outlined in <b>Section 2</b>.</li> </ul>
		<ul> <li>The identification and assessment of the site has been carried out by suitably qualified consultants, including RPS (environmental consultants) and Bamford Consulting Ecologists (Carnaby's cockatoo specialists).</li> </ul>
		<ul> <li>This Offset Management Plan outlines the various management actions and completion criteria that will form the basis of the restoration of the site, with the aim being to improve the condition of the offset from a 2/10 to a 5/10 based on the habitat assessment carried by BCE (2025a).</li> </ul>
8	Have transparent governance arrangements including being able to be readily measured, monitored, audited and	2016 (WA) or Soil and Land Conservation Act 1945 (WA) will be placed
	enforced.	<ul> <li>Completion criteria and interim milestones have been developed for the purpose of measuring and reporting success of management outcomes (Section 10).</li> </ul>
		<ul> <li>This OMP sets out a monitoring program and reporting framework to track progress of the offset area towards interim milestones and completion criteria for Carnaby's Cockatoo. The resultant Monitoring Reports will be prepared and provided to DCCEEW every five years (Section 12).</li> </ul>

### 5.2 Western Australia Environmental Offsets Policy

This OMP has been developed to demonstrate the suitability of the offset area and address the overarching principles within the Western Australian Government's Environmental Offsets Policy (GoWA 2011). The principles and where they have been addressed in this document are presented in **Table 6**.

Table 6 WA Environmental Offsets Policy Principles addressed in this OMP

Principle Number	Description	Relevant Section in the OMP
1	Environmental offsets will only be considered after avoidance and mitigation options have been pursued.	construction and operation of up to 18 wind turbines, primarily in cleared
		<ul> <li>Development of the Waddi Wind Farm has been informed at all stages by the application of a mitigation hierarchy by prioritising actions to avoid environmental harm before sequentially considering opportunities to minimise, restore, mitigate, and then offset residual impacts (RPS, 2025a). Most unavoidable clearing occurs along the proposed transmission corridor, which connects to a Western Power transmission line, for which there is less design flexibility.</li> </ul>



Principle Number	Description	Relevant Section in the OMP
2	Environmental offsets are not appropriate for all projects.	<ul> <li>The Project sought to avoid and minimise the clearing of vegetation to the extent possible, however the loss of 5.5 ha of Carnaby's cockatoo foraging and potential roosting and nesting habitat could not be avoided.</li> </ul>
		<ul> <li>The offset which will result in the restoration of 17.6 ha of 'completely degraded' vegetation to 'good' or better condition less than 2 km from the western boundary of the Project area. This represents a suitable outcome that will enhance the viability of local Carnaby's cockatoo populations within the immediate vicinity of the Project and the region, as well being realistic and achievable by the proponent.</li> </ul>
		<ul> <li>Rather than seeking to protect established vegetation, this OMP provides for the rehabilitation of degraded pasture to foraging, roosting and nesting habitat for Carnaby's cockatoo adjacent to known Carnaby's cockatoo foraging habitat. Given the Project involves the unavoidable clearing of 5.5 ha of potential Carnaby's cockatoo habitat, the rehabilitation of 17.6 ha of pasture to habitat will result in a net increase in viable Carnaby's cockatoo habitat within the region.</li> </ul>
		<ul> <li>The offset will also involve the installation and maintenance of a minimum of 7 Carnaby's Cockatoo nest boxes which will provide potential roosting habitat while vegetation within the offset area matures.</li> </ul>
		Accordingly, the provision of an offset is appropriate in these circumstances.
3	Environmental offsets will be cost-effective, as well as relevant and proportionate to the significance of the environmental value being impacted.	<ul> <li>The rehabilitation of 17.6 ha of 'completely degraded' vegetation and the installation of minimum of 7 nest boxes to offset the permanent loss of 5.5 ha of Carnaby's cockatoo foraging, and potential roosting and nesting habitat is relevant and proportionate to the significance of the environmental value being impacted.</li> </ul>
		<ul> <li>The area and form of offset derived through the application of the WA Offset Assessment Guide calculator in consultation with DWER.</li> </ul>
4	Environmental offsets will be based on sound environmental information and knowledge.	<ul> <li>Identification of the proposed offset site and development of the offset proposal have been underpinned by expert technical analysis to inform a scientifically robust approach, as outlined in Section 2.</li> </ul>
		<ul> <li>The identification and assessment of the site has been carried out by suitably qualified consultants, including RPS (environmental consultants) and Bamford Consulting Ecologists (Carnaby's cockatoo specialists).</li> </ul>
		<ul> <li>This OMP outlines the management actions that form the basis of the restoration of the site, with the aim to improve the condition of the offset location from 'completely degraded' to a 'good' or better condition.</li> </ul>
5	Environmental offsets will be applied within a framework of adaptive management.	<ul> <li>This OMP outlines the various management actions that will form the basis of the restoration of the site, with the aim being to improve the condition of vegetation within the offset area from 'completely degraded' to a 'good' or better condition.</li> </ul>
		<ul> <li>This OMP includes a monitoring program of the offset and external reference areas to evaluate success of management measures outlined in this OMP, identifying triggers for action (Section 11.5.1) and implementing appropriate corrective actions (such as infill planting or seeding) (Section 11.5.2).</li> </ul>
		This OMP sets clear timeframes for identifying and implementing solutions in circumstances where monitoring identifies that management outcomes are not being met (Section 13).
		<ul> <li>This OMP follows an adaptive management approach and will be reviewed every five years and updated as required. The review will incorporate recommendations and changes identified as a result of monitoring and subsequent adaptation of management activities (as required) (Section 16).</li> </ul>
6	Environmental offsets will be focussed on longer term strategic	The Proponent has committed to the ongoing management of the offset for a period of 35 years.
	outcomes.	<ul> <li>A conservation covenant under either the Biodiversity Conservation Act 2016 (WA) or Soil and Land Conservation Act 1945 (WA) will be placed on title to ensure its protection for conservation purposes in perpetuity.</li> </ul>



#### Relevant Conservation Advice and Recovery Plans 6

The following section provides a summary of the relevant Conservation Advice, Recovery Plans and Threat Abatement Plans for Carnaby's cockatoo used to develop the specific management and corrective actions proposed in this OMP. The key documents used to develop these management and corrective actions have been provided in Table 7.

Table 7 Relevant conservation advice and recovery plans

#### **Document Name**

#### How management actions take conservation advice into account

- Information Sheet Carnaby's black Calyptorhynchus latirostris (Johnstone 2010).
- Carnaby's black cockatoo (Calyptorhynchus latirostris) Recovery Plan (Department of Parks and Wildlife 2013).
- Referral guideline for 3 WA threatened black cockatoo priority recovery objectives identified for this species including: species (Department of Agriculture, Water and the Environment 2022).
- Threat abatement plan for predation by feral cats 2024 (Department of Climate Change, Energy, the Environment and Water 2024).
- Fauna Notes Artificial Hollows for Black Cockatoos (Department of Biodiversity, Conservation and Attractions,
- How to monitor and maintain artificial hollows for Carnaby's black cockatoo (Department of Parks and Wildlife, 2015)

cockatoo These documents were used to quantify existing and future habitat for Carnaby's cockatoo and to manage and reduce known threats to the species within the offset area. Management and corrective actions discussed in this OMP will be implemented to address key threats and

- Securing the offset area to undertake revegetation efforts to increase the area availability of foraging habitat for the species and prevent impacts from future development (see Section 15).
- Increasing foraging habitat availability in the landscape and improving habitat quality for the species through revegetation of 17.6 ha. Revegetation includes planting preferred species (see Section 11.3).
- Installation of a minimum of 7 nest boxes that are suitable for the species with specifications as per the conservation advice (see Section 11.6).



### 7 Offset Area Description

### 7.1 Location and Bioregional Context

The 17.6 ha offset area is located within a property approximately 2 km north-east of the Project area within the Shire of Dandaragan and approximately 157 km north of Perth, Western Australia (Lot 1 on 8424 / 12946 Brand Hwy Cooljarloo (**Figure 2**) (hereon referred to as the "offset" or "offset area"). The coordinates of the respective Commonwealth and State offset area is provided in **Appendix C**.

The offset area is located within the Geraldton Sandplains bioregion (GS) and Leseur Sandplain subregion (GS2). The Leseur Sandplain (GS2) subregion was described by Desmond and Chant (2001) as being formed on an undulating lateritic sandplain comprised of coastal Aeolian, limestones, siltstones and sandstones that are alluvial in origin in the drainage systems. The predominant vegetation type for the subregion is proteaceous-rich heath containing high levels of botanical endemism. The area also contains extensive areas of York Gum (*Eucalyptus loxophleba*) and Jam (*Acacia acuminata*) woodlands in outwash drainage areas, with areas of Wandoo (*Eucalyptus wandoo*) woodlands also occurring. This subregion also includes a complex series of seasonal wetlands.

The Geraldton Sandplains bioregion has a warm semi-arid to Mediterranean climate with 400-500 mm of rainfall annually. Maximum temperatures are typically 34.7°C in summer, getting up to as high as 46.9°C and 17.6°C up to a maximum of 26°C in winter (Bureau of Meteorology (BoM), 2025). The nearest BoM weather station to the offset area is the Badgingarra Research Station (Station ID 009037), approximately 30 km north for rainfall and temperature data. For the region, rainfall is greatest during cooler months from May through to September, with highest mean rainfalls recorded in June or July. Rainfall records for summer months have indicated several occasions in recent years where no rainfall was recorded (typical monthly averages are 10 – 15 mm (BoM, 2025). Mean minimum temperature in winter averages around 7.2°C and 17.9°C in summer (BoM, 2025).

### 7.2 Existing Land Uses

The primary land use in the offset area and adjacent properties to the north, east and south is dryland agriculture. The offset is comprised mostly of grazing pasture with scattered Dwutta (*Eucalyptus todtiana*). The western boundary of the offset area contains 62 ha of intact vegetation that is comprised of shrubby heath with scattered Eucalypts that forms part of an Environmentally Sensitive Area gazetted under the EP Act in 2005. Existing development within 15 km of the offset site consists of a mining operation, cleared agricultural land and a network of sealed and unsealed roads.

#### 7.3 Environmental Values

The offset area has been categorised into four vegetation and substrate association (VSA) types (BCE, 2025a). **Table 8** provides a summary of the associated vegetation and the percentage of the offset area each comprises.



Table 8 VSAs within the offset area

VSA	Description	Area (ha)
1 - Pasture with scattered Dwutta	Pasture grassland with scattered Dwutta ( <i>Eucalyptus todtiana</i> ) with infrequent shrubs on white sands sandplain.	15.15
2 - Parkland woodland over scrub	Planted large Eucalypts (probably <i>Eucalyptus camaldulensis</i> ) over degraded scrub and pasture grassland on sandplain.	1.27
3 - Melaleuca dampland	Patchy <i>Melaleuca preissiana</i> over pasture with reeds along damp soakline. Dark, peaty soil. A slight depression retains water seasonally.	0.43
24 - Degraded scrub over grassland	Patch of degraded Melaleuca scrub over grassland.	0.75
Total		17.6

One seasonal wetland characterised as a dampland is present in the southern portion of the offset area, with several water sources located within suitable distances to support use of the site by Carnaby's cockatoo including:

- Mullering Brook, a tributary of Hill River recharged by surface water flows and groundwater, located approximately 1.2 km east of the offset area.
- Several farm dams located between 900 m to 6 km from the offset area (RPS 2025a). The offset area is
  situated within the Arrowsmith Zone which is characterised by sandy and gravelly soils on lateritic sandplains,
  and the Arrowsmith subsystem which is described as an undulating to flat sandplain within minor swamps
  and pale to yellow deep sands (DPIRD 2023, Schoknecht et al. 2004).

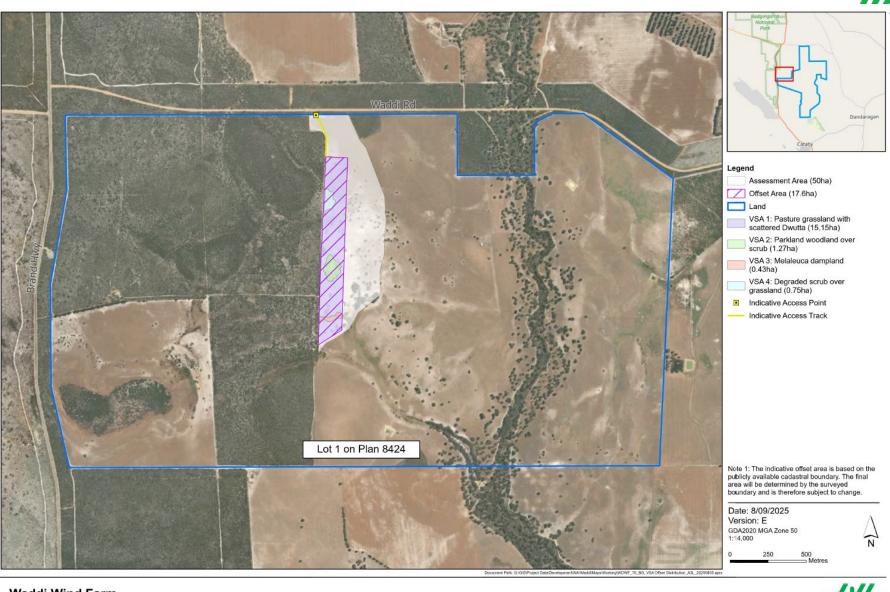
Three protected areas proximate to the offset area include:

- Badgingarra National Park, 800 m north-west of the offset area that is a large, near-continuous area of native vegetation comprised mostly of Kwongan Heath and is contiguous with other stands of heath lying outside of the Park.
- Wongonderrah Nature Reserve, 11 km west of the offset area that contains a cross-section of the vegetation types found on the Bassendean sands, including winter-wet swamps with paperbark forest, and heathlands.
- Minyulo Nature Reserve, 11 km south-east of the offset area which is a small stand of Wandoo Woodland that and is a known breeding area for Carnaby's cockatoo.

### 7.4 Values for Carnaby's Cockatoo

The offset area is immediately adjacent to existing retained vegetation within the same land parcel, and proximate to several other vegetated areas that provide suitable foraging, breeding and roosting habitat for the Carnaby's cockatoo. This adjacent foraging habitat is comprised of Kwongan heath, rich in food plants of Banksia and Hakea, and woodlands containing Marri located along Mullering Brook approximately 1.2 km from the offset area.

Bamford Consulting Ecologists (BCE 2025a) observed evidence of recent Carnaby's cockatoo foraging activity in the immediately adjacent vegetation. The species is expected as a regular visitor of the offset area for a substantial part of the year.



#### Waddi Wind Farm

VSA Distribution within offset site

Figure 3 Offset area location





### 8 Habitat Quality Assessment

A Habitat Quality Assessment (HQA) and score provide an indication of the suitability of an area to support species and ecological communities. The habitat quality assessment method was applied to both the impact area (RPS 2025a) and the offset area (BCE 2025a) to derive a habitat quality score for input into the EPBC OAG.

The following sections provide further information on the survey methodology and habitat quality assessment and scoring methodology undertaken in both the impact area and offset area.

#### 8.1 Field Survey Methodology

The field surveys from which the habitat quality score was derived include:

- Impact area:
  - Waddi Wind Farm, Spring Flora and Vegetation Survey and Black Cockatoo Habitat Survey (Outback Ecology 2014).
  - Waddi Wind Farm Project Cataby, Supplementary Flora, Vegetation and Fauna Survey (Ecologia Environment 2016).
  - Waddi Wind Farm, Reconnaissance Flora and Vegetation Assessment (RPS 2023).
  - Targeted Star Sun-orchid and Sandplain Duck Orchid Searches (RPS 2025b).
- · Offset area:
  - 4 March 2025 by Bamford Consulting Ecology (BCE 2025a).

These surveys and subsequent analysis were conducted with reference to:

- Referral guideline for 3 Western Australian threatened black cockatoo species (DAWE 2022)
- EPBC Act referral guidelines for three threatened black cockatoo species: Carnaby's black cockatoo (endangered) Calyptorhynchus latirostris, Baudin's cockatoo (vulnerable) Calyptorhynchus baudinii, Forest red-tailed black cockatoo (vulnerable) Calyptorhynchus banksii naso. (DSEWPaC 2012b)
- Ecological values for black cockatoos within the site were based on the descriptions of breeding, foraging and roosting habitat outlined in EPBC Act Environmental Offsets Policy (DSEWPaC 2012a).

### 8.2 Habitat Quality Assessment Methodology

To assess habitat quality as per the DCCEEW habitat quality scoring tool, a minimum of one permanent monitoring site within each VSA will be established in the offset site so that future assessments can follow the same methodology and be repeated consistently.

The habitat quality score methodology as outlined in the OAG requires the score to be calculated using three components that are site condition, site context and species stocking rate. The method of habitat quality scoring used for Carnaby's cockatoo were developed by BCE and includes these three components, as well as moderation for context and species density with respect to the site condition (vegetation) score. Moderation also includes consideration of pine plantations as a species case for foraging value (BCE 2025a).

The methodology for calculating the habitat quality score (out of 10) of the offset area is as follows:



- Site Condition scored out of 6 and is an assessment of the vegetation composition, condition and structure and value as foraging habitat.
- Site Context scored out of 3 and is an assessment of the presence or absence of habitat within the local area outside of the offset area.
- Species Stocking Rate scored out of 1 and is an assessment of the presence or absence of the species within the offset area.

The BCE method for habitat quality scoring places the greatest weight on site condition, as this best assesses the quality and availability of foraging habitat for the species. Site context has a lower weight in recognition of the mobility of the species. The Carnaby's cockatoo is capable of easily moving across the landscape to access good foraging habitat even in fragmented landscapes, noting the extent of available habitat in a region and context in relation to activity (such as breeding and roosting). Species stocking rate is given a low weight as it is a means only of recognising that a species may or may not be abundant at a site, but that abundance is dependent upon site condition and context and is thus not an independent variable. The abundance of a species is also sensitive to sampling effort, and to seasonal and annual variation, and is therefore an unreliable indicator of actual importance of a site to a species.

The following sections provide more information of each of the components and how they are scored.

#### 8.2.1 Site Condition

Site condition is based on the presence, abundance and condition of vegetation that is used for foraging by the Carnaby's cockatoo. **Table 9** provides the scoring criteria used for vegetation condition, composition and structure within the offset area. Vegetation structural class terminology follows *Bushland Plant Survey: A guide to plant community survey for the community* (Keighery 1994).

Table 9 Site condition scoring criteria

Site Condition Score	Scoring criteria	Description		
0	No foraging value. No Proteaceae, eucalypts or other potential sources of food.	<ul> <li>Water bodies (e.g. salt lakes, dams, rivers)</li> <li>Bare ground</li> <li>Developed sites devoid of vegetation (e.g. infrastructure, roads, gravel pits) or with vegetation of no food value, such as some suburban landscapes</li> <li>Mown grass.</li> </ul>		
1	Negligible to low foraging value.	<ul> <li>Scattered specimens of known food plants but projected foliage cover of these is &lt;2%. This could include urban areas with scattered foraging trees.</li> <li>Paddocks that are lightly vegetated with melons or other known food-source weeds (e.g. Erodium spp.) that represent a short-term and/or seasonal food source.</li> <li>Blue Gum plantations (foraging by Carnaby's cockatoos has been reported but appears to be unusual).</li> </ul>		
2	Low foraging value.	<ul> <li>Shrubland in which species of foraging value, such as shrubby banksias, have &lt;10% projected foliage cover;</li> <li>Woodland with tree banksias 2-5% projected foliage cover.</li> <li>Woodland with tree banksias (of key species <i>B. attenuata</i> and <i>B. menziesii</i>) with &lt;10% projected foliage cover but vegetation condition reduced due to weed invasion and/or some tree deaths.</li> <li>Open eucalypt woodland/mallee of small-fruited species.</li> <li>Paddocks that are densely vegetated with melons or other known food-source weeds (e.g. Erodium spp.) that represent a short-term and/or seasonal food source.</li> </ul>		



Site Condition Score	Scoring criteria	Description
3	Low to Moderate foraging value	<ul> <li>Shrubland in which species of foraging value, such as shrubby banksias, have 10-20% projected foliage cover.</li> <li>Woodland with tree banksias 5-20% projected foliage cover.</li> <li>Woodland with tree banksias (of key species <i>B. attenuata</i> and <i>B. menziesii</i>) with 10-40% projected foliage cover but vegetation condition reduced due to weed invasion and/or some tree deaths.</li> <li>Eucalypt Woodland/Mallee of small-fruited species.</li> <li>Eucalypt Woodland with Marri &lt;10% projected foliage cover.</li> </ul>
4	Moderate foraging value	<ul> <li>Woodland/low forest with tree banksias (of key species <i>B. attenuata</i> and <i>B. menziesii</i>) 20-40% projected foliage cover.</li> <li>Woodland/low forest with tree banksias (of key species <i>B. attenuata</i> and <i>B. menziesi</i>) with 40-60% projected foliage cover but vegetation condition reduced due to weed invasion and/or some tree deaths.</li> <li>Kwongan/ Shrubland in which species of foraging value, such as shrubby banksias, have 20-40% projected foliage cover.</li> <li>Eucalypt Woodland/Forest with Marri 20- 40% projected foliage cover.</li> </ul>
5	Moderate to High foraging value	<ul> <li>Banksia Low Forest (of key species <i>B. attenuata</i> and <i>B. menziesii</i>) with 40-60% projected foliage cover.</li> <li>Banksia Low Forest (of key species <i>B. attenuata</i> and <i>B. menziesii</i>) with &gt; 60% projected foliage cover but vegetation condition reduced due to weed invasion and/or some tree deaths.</li> <li>Kwongan/ Shrubland in which species of foraging value, such as shrubby banksias, have 40-60% projected foliage cover.</li> <li>Marri-Jarrah Forest with 40-60% projected foliage cover and vegetation condition good with low weed invasion and/or low tree deaths (indicating it is robust and unlikely to decline in the medium term).</li> <li>Pine plantations with trees more than 10 years old (but see pine note below in moderation section).</li> </ul>
6	High foraging value	<ul> <li>Banksia Low Forest (of key species <i>B. attenuata</i> and <i>B. menziesii</i>) with &gt; 60% projected foliage cover and vegetation condition good with low weed invasion and/or low tree deaths (indicating it is robust and unlikely to decline in the medium term).</li> <li>Kwongan/ Shrubland in which species of foraging value, such as shrubby banksias, have &gt;60% projected foliage cover.</li> <li>Marri-Jarrah Forest with &gt; 60% projected foliage cover and vegetation condition good with low weed invasion and/or low tree deaths (indicating it is robust and unlikely to decline in the medium term).</li> </ul>

#### 8.2.2 Site Context

Site Context is a function of site size, availability of nearby habitat and the availability of nearby breeding areas. Site context includes consideration of connectivity, although Carnaby's cockatoo are very mobile and will fly across paddocks to access foraging sites. Based on BCE observations, Carnaby's cockatoo are unlikely to regularly go over open ground for more than a few kilometres and prefer to follow tree-lines.

The maximum score for site context is 3 and captures the presence or absence of nearby breeding and the distribution of foraging habitat across the landscape. **Table 10**<sup>2</sup> was developed by BCE and DCCEEW to assess site context and provides a guide to the scoring criteria which are classified by the likelihood of breeding habitat that contributes to the native vegetation within the local area. 'Local' area is defined as a 15 km radius of the

<sup>&</sup>lt;sup>2</sup> The table above provides weighting for where nearby breeding is known (or suspected) and for the proportion of foraging habitat within 15 km represented by the site being assessed. Some adjustments may be needed based on the judgement of the assessor and in relation to the likely function of the site for future assessments. For example, a small area of foraging habitat (e.g. 0.5% of such habitat within 15 km) could be upgraded to a context of 2 if it formed part of a critical movement corridor. In contrast, the same sized area of habitat, of the same local proportion, could be downgraded if it were so isolated that birds would never access it.



centre point of the offset area. This is greater than the maximum distance of 12 km known to be flown by Carnaby's cockatoo when feeding chicks in the nest.

Table 10 Site context scoring criteria

Site Context Score	Percentage of existing native vegetation within the 'local' area that the study area represents				
	'Local' breeding known/likely	'Local' breeding unlikely			
0	<0.1 %	<1 %			
1	0.1-1 %	1-5 %			
2	1-5 %	5-10 %			
3	>5 %	>10 %			

Based on the Department of Primary Industries and Regional Development native vegetation extent data set (DPIRD 2023) the amount of native vegetation remaining within 15 km of the offset area is c. 30,688 ha. Therefore, the offset area (17.6 ha) comprises 0.08% of the native vegetation in the 'local area'.

For VSA 1 a context score of 0/3 was given. While breeding does occur within 15 km of the offset area, the vegetation condition score is very low. Vegetation in VSAs 2, 3 and 4 also scored zero for context. This recognises that the vegetation in the offset area, while providing some foraging value, is less important in the local landscape given the abundance of higher quality foraging habitat nearby.

#### 8.2.3 Species Stocking Rate

The species density score is assigned based on observed or predicted regular presence of foraging birds.

For example, birds may not be observed and foraging evidence may not be found during a short site visit, but if there are birds and/or foraging evidence present or nearby, and the habitat has a moderate to high vegetation condition score, then it is certain to be visited regularly by foraging birds and is given a density score of 1 accordingly. If birds or foraging evidence are not observed, and the regular presence of foraging birds is not expected, then the area is given a stocking rate score of 0.

Evidence of foraging was not observed within this offset area but abundant records of Carnaby's cockatoo and signs of foraging exist adjacent to the offset area. It is considered that this species is likely to be regularly present on this site. A species density score of 1 was given only for VSA 1 since it provides foraging habitat.



### 8.3 Impact Area Habitat Quality Score

The impact area habitat quality score as per the WA offset calculator and EPBC Calculator is summarised below in **Table 11**.

Table 11 Impact area habitat quality score

Calculator	Habitat type	Impact (ha)	area Habitat quality score (out of 10)
WA Offset Assessment Calculator	Carnaby's cockatoo foraging habitat	5.4^	7^^
EPBC OAG	Carnaby's cockatoo foraging habitat	5.33	5^^

<sup>^</sup> The impact area of 5.33 ha has been rounded up to 5.4 ha for the purposes of the WA offset calculator following engagement with DWER during the assessment process for Clearing Permit CPS 10418/1.

### 8.4 Offset Area Baseline Habitat Quality Score

Using the scores for site condition, site context and species stocking rate discussed in the above sections, a weighted habitat quality score was calculated for Carnaby's cockatoo, taking into consideration the size of each VSA. A summary of the habitat quality score for each VSA and the final habitat quality score that is used for the OAG calculator is presented in **Table 12**.

The offset area consists primarily of VSA 1 (Pasture Grassland with scattered Dwutta), with a projected foliage coverage of suitable foraging species (wholly *E. todtiana*) of about 2%. Furthermore, there were several native understorey plants, including *Hakea sp.* and *Macrozamia sp.*, that occur as part of the surrounding heath and that have self-sown. As a result, a vegetation condition score of 1/6 was assigned to this VSA.

The woodland areas of VSA 2 contain several mature and spreading River Red Gums which offer low value foraging for Carnaby's but has a relatively high foliage cover and therefore also scores 1/6. The small areas of VSA 3 (Melaleuca Dampland) and VSA 4 (Degraded scrub over grassland) that occur in the centre of the site, do not contain food plants for Carnaby's and were therefore assigned a vegetation condition score of 0/6.

Table 12 Baseline habitat quality score

VSA	Site condition score (out of 6)	Site context score (out of 3)	Species stocking rate score (out of 1	
1	1	0	1	2
2	1	0	1	2
3	0	0	1	1
4	0	0	1	1
Final habitat quality score				2

### 8.5 Vegetation Condition assessment

In addition to the habitat quality score assessed by BCE (2025a), there is merit in assessing the vegetation condition of the offset area to provide an indication of the change in the level of disturbance associated with

<sup>^^</sup> The Proponent has assessed the impact area quality score per BCE (2025a) at 5/10 as outlined in Table 4. During the assessment process for Clearing Permit CPS 10418/1, DWER ascribed a habitat quality score of 7/10 for the purposes of the WA offset calculator based on the DWER (2022) *Draft procedure for environmental offsets metric inputs*. These metrices have been applied throughout this OMP for the purposes of the calculating offset requirements under the Cth EPBC Act and WA EP Act respectively.



human activities. The rating scale set out in **Table 13** considers the degree of change in the vegetative structure, density, and species present in undisturbed vegetation of the same type. For the offset, undisturbed vegetation is present to the immediate west and will provide a reference site to inform the revegetation process and assessment of restoration success. The offset area is in a 'Completely Degraded' state, with the expectation that the restoration that will occur will improve the condition to 'Good' within 10 years.

Table 13: Measuring vegetation condition for the South-west and Interzone Botanical Province (Keighery 1994)

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.
Very Good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.
Completely Degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.



## 9 Offset Calculator Inputs

### 9.1 DCCEEW Offset Assessment Guide

To confirm the offset area has the potential to acquit the impacts to Carnaby's cockatoo, the DCCEEW OAG was applied. **Table 14** describes the inputs required by the calculator and the rationale for each input.

Table 14 Summary of Offset Assessment Guide inputs

Offset Assessment Guide input	Value	Rationale
Quantum of impact – area (ha)	5.51 ha	<ul> <li>This is the area of proposed clearing of Carnaby's cockatoo foraging habitat associated with the dominant flora species present including Banksia attenuata (Slender Banksia) and Xanthorrhoea preissii (Grass Tree) and the occasional taller Eucalypts such as Eucalyptus todtiana (Pricklybark) (RPS, 2025a).</li> </ul>
		<ul> <li>It also includes the permanent loss of 35 potential roosting and nesting trees, with no hollow present in any (RPS, 2025a).</li> </ul>
Impact area score (out of 10)	5/10	<ul> <li>The Proponent has assessed the impact area quality score per BCE (2025a) at 5/10 as outlined in Table 3. During the assessment process for Clearing Permit CPS 10418/1, DWER ascribed a habitat quality score of 7/10 for the purposes of the WA offset calculator based on the) Draft procedure for environmental offsets metric inputs (DWER 2022). These metrics have been applied throughout this OMP for the purposes of the calculating offset requirements under the EPBC Act and EP Act, respectively.</li> </ul>
Quantum of impact – quality (vegetation condition)	4.05 ha (E) <sup>3</sup> 0.45 ha (VG) 0.51 ha (G) 0.15 h (D)	<ul> <li>Site assessment activities carried by RPS (2025a) included site surveys and the review of survey reports prepared by others determined that the Carnaby's cockatoo foraging habitat was of high value based on the presence of known preferred food sources for the Carnaby's cockatoo such as <i>Banksia attenuate</i> (Slender Banksia), and <i>Banksia menziesii</i> (Firewood Banksia) and vegetation condition.</li> </ul>
	0.35 ha (CD)	<ul> <li>In addition, 35 potential roosting and nesting trees will be permanently removed, noting that none include hollows at present (BCE, 2025a).</li> </ul>
Time over which loss is averted (year)	20 years	The time over which the loss is averted will be varied according to specific restoration activities and their success:
		<ul> <li>The proposed offset is the restoration of completely degraded farmland with species that will include preferred foraging species and potential breeding and roosting habitat suited to the continued presence of the Carnaby's cockatoo, noting that Banksia Woodland/Kwongan Heath can be successfully restored within 5 – 10 years.</li> </ul>
		<ul> <li>As the proposed offset location includes the presence of the Eucalyptus todtiana immediately adjacent to retained native vegetation to the west, there is suitable foraging and potential breeding and roosting habitat in the immediate vicinity of the offset site that provides a current foraging source, with the planned restoration extending and enhancing this habitat over time. As indicated, the benefit of the restoration to the Carnaby's cockatoo could be realised within as little as 5 – 10 years.</li> </ul>
		• The installation of 7 nesting boxes on <i>Eucalyptus camaldulensis</i> (River Gum) at the offset area will result in an immediate to short-term benefit to the species.
		<ul> <li>A conservation covenant will be placed over the offset area to ensure protection in perpetuity of the Carnaby's cockatoo foraging, and potential breeding and roosting habitat that will be created. The restoration works will also contribute to other regional measures aimed at protecting habitat for this and other fauna species.</li> </ul>
Time until ecological benefit (years)	10 years	<ul> <li>As previously indicated, the offset area is immediately adjacent to native vegetation that includes known flora species favoured by the Carnaby's cockatoo, as well as potential breeding and roosting trees in the form of Eucalyptus todtiana (Pricklybark), it provides a like-for-like offset in terms of counterbalancing residual risks associated with the loss of habitat from the proposed action area.</li> </ul>
		<ul> <li>Accordingly, the offset area will result in variable times until an ecological benefit is achieved according to the activities undertaken, as indicated above.</li> </ul>

<sup>&</sup>lt;sup>3</sup> Vegetation condition classes under the Western Australia EP Act: Excellent (E), Very Good (VG), Good (G), Degraded (D) and Completely Degraded (CD).



Offset	Value	Rationale
Assessment Guide input		
Galac Ilipat		The proposed offect will be get exide for appearation in persetuity through the placemen
		<ul> <li>The proposed offset will be set aside for conservation in perpetuity through the placement of a conservation covenant on title. Meaning that the existing habitat immediately to the west of the offset area will be increased through the restoration that will occur within the offset area providing an ongoing ecological benefit to the cockatoo population through the retention of a sizable, vegetated area that will provide additional benefits to the broader ecological community and its components, resulting in a net conservation gain.</li> <li>It is expected that the offset area restoration will take a minimum of five to ten years to result in a self-sustaining community that will provide additional Carnaby's cockator habitat.</li> </ul>
Start quality of the site (out of 10)	2/10	<ul> <li>As the offset site is pastureland with the occasional tree present, an assessment of the proposed offset location was carried out by BCE (2025a) which considered the Carnaby's cockatoo habitat values of the proposed offset site, with the overall rating being 2/10, consistent with its degraded nature.</li> </ul>
		<ul> <li>The habitat features present include small areas of existing degraded Melaleuca scrub and heath over grassland, as well as scattered planted eucalypts, including several suitable for roosting. A seasonal wet seep is also present with several alternative water sources close by.</li> </ul>
Future quality without offset (out of 10)	1/10	<ul> <li>At present, management of the offset area is associated with ongoing agricultural/pastoral land uses (sheep grazing). In addition, the assessment carried out by BCE (2025a) noted indications of foxes, feral cats, and rabbits that could prove a threat to the presence of conservation significant fauna species.</li> <li>Without the planned restoration and the setting aside of the site for conservation purposes, the future quality of the area is expected to reduce to a 1.</li> </ul>
Future quality with offset (out of 10)	5/10	<ul> <li>The offset area has significant potential for enhancement. Through active management the future quality of the site is expected to increase its suitability to support use for foraging, and in time, potential breeding and roosting by Carnaby's cockatoo.</li> <li>Given that the offset area has a starting quality of 2/10 (BCE, 2025a), it is expected that</li> </ul>
		<ul> <li>the condition of the offset site will increase to a 5/10 within 10 years.</li> <li>This will be achievable through active management activities such as but not limited to the removal of pasture, weed management, extensive planting, and pest animal management. Additional methods of enhancing suitability for use by Carnaby's cockatoos include the installation of cockatoo nesting boxes.</li> </ul>
Size of offset area (ha)	17 ha	<ul> <li>An offset area of 17.6 ha is proposed as this aligns with the preliminary outputs of the Western Australia Offset Calculator discussed with DWER as part of the native vegetation clearing permit assessment process, while also exceeding the minimum anticipated requirements of the DCCEEW OAG.</li> </ul>
Risk of loss (%) without the offset	1 %	<ul> <li>The average annual background rate of loss for the Shire of Dandaragan is listed as 0.37% (Maseyk, Evans, and Maron, 2017).</li> </ul>
		<ul> <li>The risk of loss is estimated at 1% in the calculator based on the applied value for the area where the offset site is located as well as the potential for continued degradation in the form of its continued use for agricultural purposes.</li> </ul>
Risk of loss (%) with the offset	20 %	<ul> <li>While the proponent will lease the offset area for the duration of the wind farm life and will be responsible for implementing this OMP, there are other reasons for restoration failure such as fire and other natural events such as severe storms.</li> </ul>
Confidence in result – averted loss (%)	80 %	<ul> <li>Despite the intent that the offset area will provide Carnaby's cockatoo habitat on an ongoing basis, there are other reasons for 'failure', such as fire or damage from storm events that could compromise the site and its use by Carnaby's cockatoo. Thus, the confidence in the outcome of the process cannot be 100%.</li> </ul>
Confidence in result – change in habitat quality (%)	85 %	<ul> <li>The proposed offset is in a degraded condition with the offset process aiming to restore a typical ecological community that is recorded within the nearby areas that provides suitable habitat species suited for use by the Carnaby's cockatoo.</li> </ul>
		<ul> <li>The intensive revegetation program is expected to improve the condition of the offset area from a 2/10 to a 5/10 based on the BCE (2025a) habitat quality assessment, meaning an enhanced and increased area of Carnaby's cockatoo habitat in the region.</li> </ul>



Offset Assessment Guide input		Value	Rationale
Percentage acquitted	(%)	>100 %	<ul> <li>Based on the DCCEEW Offset calculator outputs, the proposed offset compensates for more than 100% of the impact associated with the clearing of 5.5 ha of Carnaby's cockatoo foraging, as well as the loss of potential breeding and potential roosting trees.</li> </ul>

The OAG for Carnaby's cockatoo is attached in Appendix B.

### 9.2 Western Australia Environmental Offsets Calculator

The Western Australia Environmental Offsets Calculator involves three key components:

- · Species conservation significance
- · Significant residual impact to the species, and
- Offset required.

The inputs and rationale associated with the Western Australian Environmental Offsets Calculator are provided in **Table 15**.

Table 15 Application of Western Australia Offset Calculator and rationale

Calculation	Score (Area) F	Rationale
Conservation Sign	nificance	
Description	Carnaby's cockatoo (Zanda latirostris)	Review of likely presence of conservation species, surveys by RPS (2025a) and BCE (2025a).
Type of environmental value	Species dependent on vegetation/ecological community that will be cleared	Primarily foraging habitat.
Conservation significance of environmental value	Listed as Endangered under the EPBC Act and as Threatened under the EP Ac	ranging in quality by RPS (2025a).
Landscape-level value impacted	Yes/no	• No
Significant residu	al impact	
Description	Permanent loss of 5.5 ha of native vegetation, 5.4 ha of which provides potential habitat for Carnaby's cockatoo	<ul> <li>Overall project area &gt; 10,000 ha, with the 5.5 ha of native vegetation being the habitat areas that could not be avoided by the project design.</li> </ul>
Significant impact (hectares)/ Type of features	5.50 ha	Impacts remaining after application of avoidance and mitigation measures
Quality (scale)/Number	Ranges from Completely Degraded to Excellent based on vegetation condition rating scale included in EPA (2016	g
Rehabilitation cre	dit	
Description	0	



Calculation	Score (Area)	Rationale
Proposed rehabilitation (area in hectares)	0	<ul> <li>Not applicable – no onsite revegetation will occur as per the Project's clearing permit (CPS 10418/1).</li> </ul>
Current quality of rehabilitation site/Start number of type of feature)	0	
Future quality without rehabilitation (scale)/future number with rehabilitation	0	
Time until ecological benefit (years)	0	
Confidence in rehabilitation result (%)	0	
Offset		
Description	Revegetation of Carnaby's clack cockatoo habitat	<ul> <li>Restoration of the species' foraging habitat in the form of Kwongan Heath, along with trees that could provide roosting and nesting habitat. Will include the installation of artificial nesting boxes that will provide an immediate benefit</li> </ul>
Proposed offset (area in hectares)	17.6	Determined by calculator as being sufficient offset
Current quality of offset site/start number (of type of feature)	2/10	Habitat quality assessment carried out by BCE (2025a)
Future quality without rehabilitation (scale)/Future number without rehabilitation	1/10	Current land use is pasture for grazing sheep, without active management of Carnaby's cockatoo habitat values
Future quality with rehabilitation (scale)/Future number with rehabilitation	5/10	Minimum expected increase in future quality expected based on BCE (2025a)     Carnaby's cockatoo habitat assessment method
Time until ecological benefit (years)	10 years	<ul> <li>Restoration of Banksia Woodland/Kwongan heath can be successful within 5 – 10 years</li> </ul>
Confidence in offset result (%)	80%	Restoration methods well known, reputable restoration contractor will be used
Duration of offset implementation	35 years	Offset will be maintained/managed by the proponent for a period of 35 years
Time until offset site secured (years)	1 year	<ul> <li>Landowner has entered into an option to lease which will involve placing a conservation covenant over the offset site.</li> </ul>
Risk of future loss without offset (%)	100%	Current land use is pasture for grazing sheep, without active management of cockatoo habitat values



Calculation	Score (Area)	Rationale
Risk of future loss with offset (%)	20%	Failure or loss can occur due to uncontrollable factors, such as fire or other forms of natural disaster
Offset ratio (Conservation area only)	1	NA
Landscape level values of offset		NA



# 10 Offset Interim Milestones and Completion Criteria

**Table 16** provides a summary of the interim and final habitat quality scores that the Project will endeavour to achieve at the offset area through site management and revegetation. At year ten it is expected that the offset will achieve its completion criteria of a habitat quality score of 5 which is to be actively maintained for a further 25 years.

Table 16 Offset interim milestones and completion criteria

MNES Habitat	Habitat Quality	y Score (/10)				
type	Year 0*	Year 5	Year 10	Year 15	Year 20	Year 35
Carnaby's Foraging	2	3	5	5	5	5

<sup>\*</sup> Year 0 = Commencement of the Action

**Table 17** provides a description of each of the management measures that will be implemented within the offset area and the respective interim milestones and completion criteria, to achieve the interim and final habitat quality scores.



Table 17 Completion criteria for management measures implemented within the offset area

Management Measures	Criterion			Completion criteria		
		Year 0*	Year 5	Year 10	Year 20	Year 35
Revegetation across 17.6 ha using direct seeding and/or tubestock planting.	Species richness and composition in each stratum	NA	the species richness and composition of vegetation in the	Species richness and composition in each stratum, within each VSA, meets 60% of the species richness and composition of vegetation in the respective reference site (native sp. only).	(native sp. only).	Species richness and composition in each stratum, within each VSA, is maintained (native sp. only).
	Dominant species height and cover	NA	Dominant species height and cover within each VSA meets 20% of the dominant species height and cover of vegetation in the respective reference site (native sp. only).	Dominant species height and cover within each VSA meets 20% of the dominant species height and cover of vegetation in the respective reference site (native sp. only).	Dominant species height and cover within each VSA is maintained (native sp. only).	Dominant species height and cover within each VSA is maintained (native sp. only).
Fencing the offset area	Fence condition	Install fencing on the boundary of the offset area with specifications to prevent access by rabbits		Fencing is maintained and repaired where required	Fencing is maintained and repaired where required	Fencing is maintained and repaired where required
Targeted weed management across 17.6 ha to reduce the threat to the	Extent/densit of Weeds	tyBaseline weed cover survey completed to estimate the extent and/or density of existing weeds within the offset area	Reduce extent/density of weeds by 3% as compared to the baseline weed cover in the OMP.	Reduce extent/density of weeds by 5% as compared to the baseline weed cover in the OMP.	Maintain extent/density of weeds as compared to the baseline weed cover in the OMP.	Maintain extent/density of weeds as compared to the baseline weed cover in the OMP



Management Measures	Criterion			Completion criteria		
		Year 0*	Year 5	Year 10	Year 20	Year 35
Conservation areas presented b weed encroachment	New weeds y	Baseline weed cover survey completed to estimate the extent and/or density of existing weeds within the offset area	Prevent the introduction of new Declared Plants and Weeds of National Significance.	Prevent the introduction of new Declared Plants and Weeds of National Significance.	Prevent the introduction of new Declared Plants and Weeds of National Significance.	Prevent the introduction of new Declared Plants and Weeds of National Significance.
Nest box installation	Nest box condition	A minimum of 7 nest boxes are installed and built to a standard that satisfy the requirements of the Artificial Hollows for Black Cockatoos (DBCA, 2023)	Artificial Hollows for Black	Nest boxes are maintained and repaired to a standard that satisfies the requirements of the Artificial Hollows for Black Cockatoos (DBCA, 2023)	Nest boxes are maintained and repaired to a standard that satisfies the requirements of the Artificial Hollows for Black Cockatoos (DBCA, 2023)	Nest boxes are maintained and repaired to a standard that satisfies the requirements of the Artificial Hollows for Black Cockatoos (DBCA, 2023)



# 11 Management Action

# 11.1 Overall Approach to Management

This section describes the overarching management actions and measures necessary to meet the final habitat quality scores for Carnaby's cockatoo and offset completion criteria for the offset area. The first five years will comprise initial weed control for up to two years ahead of planting and a three year establishment period followed by ongoing maintenance and general management over a total 35-year period. Interim milestones set at 5-yearly intervals will assess the OMP's ability to achieve these performance outcomes in the longer term. Should any of the interim milestones not be achieved by the respective milestones, this OMP will be reviewed, effectiveness of management actions evaluated, and appropriate corrective actions implemented so that the offset area is tracking towards completion.

**Section 11.2** outlines management measures required across the offset area that will result in improvements in habitat quality for Carnaby's cockatoo, reduce key threatening processes, and ensure the overarching management objectives will be achieved. General and species-specific management objectives have been developed in accordance with relevant approved listing advice, conservation advice and relevant recovery plans and threat abatement plans.

## 11.2 Management Measures

The following sections describe the management actions that will be implemented within the offset area to achieve an overall environmental and conservation gain through restoration of pastureland to increase the availability of foraging habitat to the Carnaby's cockatoo.

Accordingly, overall management aims will include:

- Increasing the area of foraging and roosting habitat available to the local and regional populations present in
  the surrounding area through the restoration of 17.6 ha of completely degraded pastureland to a selfsustaining ecological community comprised of flora species recognised as preferred foraging species.
- Increasing the area of potential nesting habitat through the installation of a minimum of 7 artificial nest boxes.
- Minimising the risk of introduction of dieback caused by *Phytophthora cinnamomi*.
- Minimising the introduction and spread of weed species into undisturbed areas.

# 11.3 Revegetation

The primary method for revegetation within the offset area will be direct seeding and/or tubestock planting and reducing threatening processes that inhibit vegetation growth (i.e. controlling weeds, feral animals, grazing livestock and soil condition). Seeding and/or tubestock planting will be undertaken in late autumn or early winter (May or June), after the first significant rains. Plants will be installed with a native plant fertiliser tablet, such as Typhoon or similar. If required, tubestock will be watered in, according to weather conditions at the time of planting. Overplanting of the site may be undertaken to allow for natural attrition of seedlings. Note that an indicative species list (**Appendix D**) has been developed from the species list included in the Preliminary Documentation prepared by RPS (2025a) and from a Dandjoo search (DCBA 2025) to support the revegetation process, noting that not all species will be able to be propagated or available in all nurseries.

Revegetation management actions will include the following:



- Where practicable, undertake seed collection from nearby local bushland, subject to landowner permission and any appropriate seed collection licences being obtained.
- Undertake site preparation works including soil preparation and/or rehabilitation and weed control.
- Establish seeding/planting zones and species lists based on existing VSAs.
- Direct seeding and/or tubestock planting based on the different zones.
- Use tree guards for established seedlings where appropriate.
- Use selected species from the indicative species list as appropriate (Appendix D).
- Establish reference sites to inform the planting and or seeding densities and species mix for each of the VSAs within the offset area and to compare revegetation success.
- All revegetation and on ground management activities will be undertaken by suitably qualified personnel.

### 11.3.1 Pre-planting Activities

Restoration success will be closely linked to the effective management of potential threats, particularly the presence of weeds (pasture) and herbivores such as rabbits. The planned pre-planting activities will occur no later than 12 months from Commencement. The following activities are expected as a minimum ahead of planting:

- Installation of fencing on the boundary of the offset area with specifications to prevent access by rabbits.
- Baseline weed surveys to determine which species are present and to inform appropriate weed management prior to initial planting.
- Removal of the pasture and associated seedbank, with potential strategies including one or more of the following:
  - Ripping and cultivating and planting an F1 hybrid cover crop such as rye or millet to outcompete weed species in the short term and aid in depletion of the weed seed bank.
  - Weed control (e.g. glyphosate) to remove pasture and any other weeds for up to 24 months prior to planting.
- Seed collection from vegetation adjacent to the offset area where appropriate and associated seed cleaning and any treatment required to enhance germination.

#### 11.3.2 Reference Sites

Reference sites will be established outside of the offset area and will contain vegetation and habitat to serve as a benchmark for vegetation within VSAs in the offset area. Each reference site will be selected to be representative of each VSA within the offset area and as a minimum will include target weed cover, target species diversity, target vegetation condition, target density and target structure of foraging habitat upon meeting the relevant completion criteria (i.e. reaching a habitat quality score of 5 and achieving a 'good' vegetation condition class). Data from the reference sites will be compared with data from the offset monitoring sites to account for seasonal variations in species composition and inform the assessment of the restoration progress of the offset.

### 11.3.3 Planting Density

The planned restoration will aim to achieve a minimum habitat quality score of 5/10. This will comprise an increase in the vegetation condition score to 3/6, an increase in the context score to 1/3, and the density score remaining at 1/1.



Planting and or seeding ratios and species composition will be selected based on the plant density and species composition of selected references sites that will be established outside the offset area (discussed in **Section 11.3.2**).

Direct seeding and/or tubestock planting may involve the following:

- Planting at a nominated ratio of 1-2 trees (canopy) per 10 m<sup>2</sup>, 2 shrubs per 5 m<sup>2</sup> and one herb per 2 m<sup>2</sup>.
- Planting of preferred Carnaby's Cockatoo foraging species at a ratio of 2:1 with respect to other species.
- Obtaining seed from vegetated areas within the offset and surrounding locations with appropriate approvals
  and licences to be used to propagate tubestock and/or used for direct seeding; and/or
- Obtain tubestock that meets the following requirements:
  - local provenance tubestock from Nursery Industry Accreditation Scheme, Australia (NIASA) accredited nurseries.
  - certification that the plant and soil is free from disease, pests and weeds.

### 11.3.4 Management Outcomes

The proposed sequence of revegetation management actions is set out below:

- Fencing to be installed not longer than 6 months after Commencement.
- Weed control as part of site preparation, to be undertaken within 24 months following Commencement, prior to planting.
- Seed collection, cleaning and treatment to commence within 24 months of Commencement.
- Soil preparation and/or rehabilitation activities as part of site preparation to be undertaken within 6 months prior to the initial planting.
- Seeding and/or the installation of tubestock to occur between 24-36 months after Commencement.
- Weed control to be undertaken annually for the first 5 years then as required so that there is no reduction in habitat quality.
- Supplementary planting (as required) will occur the following autumn or early winter, after significant rainfall.

**Table 18** provides a summary of the expected management schedule including pre-planting activities, to be implemented for revegetation areas within the offset area with the actual timing subject to scheduling on an annual basis. Note that an indication that an activity can occur over several years should not be interpreted to mean that it will occur every month.



Table 18 Revegetation management action schedule

Management activity	Year 0*	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10	Year 15	Year 20	Year 25	Year 30	Year 35
Installation of fencing around the perimeter of the offset area (within 6 months of Commencement)												
Establish monitoring sites within planting zones and reference sites outside of the offset area												
Seed collection	✓	✓										
Action to control weeds prior to planting	✓	✓										
If required, baseline weed surveys undertaken	✓											
Tubestock ordered by August- September prior to initial planting		✓										
Soil rehabilitation and/or preparation activities (6 months prior to planting)		✓										
Initial Planting			✓									
If required, undertake pest fauna control activities (e.g. rabbits)	l	<b>√</b>	✓	<b>✓</b>	<b>√</b>	<b>√</b>	✓	<b>√</b>	✓	<b>√</b>	✓	<b>√</b>
Weed control		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Infill planting (if required)				✓	✓							

Year 0 = Commencement of the Action



# 11.4 Monitoring Activities

Internal monitoring of the offset will enable change over time to be reviewed and assessed, enabling a more comprehensive assessment of management success and planned improvement/enhancement of the habitat quality score. Monitoring will also allow for the identification of triggers for action (Section 11.5.1) and the need for appropriate corrective actions (Section 11.5.2) to be implemented. The results of this on the ground monitoring will also feed into the formal monitoring program discussed in Section 12.

**Table 19** provides a summary of an indicative monitoring schedule that will be undertaken within the offset area. This schedule represents the minimum monitoring events that will occur. The number of monitoring events will be increased if it is necessary to meet the offset area completion criteria.

Table 19 Monitoring activity schedule

Monitoring activity	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10	Year 15	Year 20	Year 25	Year 30	Year 35
Effectiveness weed managemer	of twice- nt annually	twice- annually	twice- annually	quarterly	twice- annually	annually	annually	annually	annually	annually	annually
Need maintenance (e.g fence repa	for twice- annually irs	twice- annually	twice- annually	quarterly	twice- annually	annually	annually	annually	annually	annually	annually
Monitoring of init planting	ial			quarterly	twice- annually	annually	annually	annually	annually	annually	annually
Nest b inspections	ox		annually		annually	annually	annually	annually	annually	annually	annually

Year 0 = Commencement of the Action

#### Monitoring will assess:

- the effectiveness of weed management within each VSA.
- the need for general maintenance (i.e. fence repairs).
- within the first 12 months of initial planting monitoring will occur every three months to check for condition and damage because of weeds, herbivory pressure or disease.

The following are examples of the types of monitoring methods that will be implemented after initial planning and/or seeding (starting from Year 4):

- A series of photo monitoring points that will enable a comparison of the area over time.
- A series of transects within the revegetated areas that will be traversed on foot with plant survival, vegetation health, and community structure noted.
- As revegetation activities can be of varying success within a nominated site, where possible, a review of aerial imagery or data collection using drones showing change in vegetative coverage and condition over time will provide a broader measure of success.
- Using the vegetation within reference sites as a means of comparing species composition as well as an indication of habitat improvement over time

Walking/traversing the offset site and surrounding area within the offset boundary as a means of assessing
weed encroachment or other conditions within the pastureland that could be a threat to the success of the
offset, and implement any remedial actions as required.

## 11.5 Offset Area Completion Criteria

The completion criteria for the offset area are an improvement of the weighted habitat quality score from 2/10 to 5/10. The proposed completion criteria will be achieved within 10 years from the commencement of the action and be maintained for a period of 35 years (**Table 16**). Restoring the offset to meet the completion criteria will create and enhance Carnaby's cockatoo foraging habitat, with the inclusion of preferred food species.

### 11.5.1 Triggers for Action

If monitoring activities indicate the potential for completion criteria being less than anticipated, one or more of the following strategies will be implemented:

- Infill planting will occur if seedling death is more than 60%.
- Infill planting will occur if there are bare patches greater than 30 m<sup>2</sup>.
- · Additional, targeted weed control will occur if the weed presence is of a greater density than reference sites.
- Undertake rabbit or other pest animal control if there is evidence of burrows or dens within the offset area.

#### 11.5.2 Corrective Actions

In the event monitoring indicates interim milestones (**Section 10**) have not been achieved within specified timeframes, an assessment of potential reasons will be undertaken to inform appropriate solutions to ensure completion goals are met. Depending on outcomes of the assessment process, one or more of the following contingency measures will be implemented:

- Post-planting weed control, such as spot or targeted spraying, or hand weeding as required following monitoring in autumn and spring in particular.
- · Infill planting to increase species diversity and/or density.
- Additional pest control and fencing maintenance if assessment activities indicate that pest animals such as rabbits are the cause of plant loss.
- If water stress is the likely cause of decline, the use of water gels or similar will be considered.
- Assessment of fencing to determine if low success is a result of unauthorised access by personnel or large numbers of native herbivores (i.e. macropods) browsing on young vegetation and repair.
- Assessment of tree guards for damage or incorrect installation and replacement.
- Implement increased controls for weed management if weed abundance is the cause of plant mortality.

### 11.6 Nest Box Installation

A minimum of 7 artificial cockatoo nesting boxes will be installed within 12 - 24 months after Commencement. Design, location and and installation of the nest boxes will be in accordance with the document *Artificial Hollows* for Black Cockatoos (DBCA, 2023). Nest boxes will be monitored in accordance with How to design and place

artificial hollows for Carnaby's Cockatoo (Department of Parks and Wildlife, 2015) at the timeframes set out in **Table 20**.

#### 11.6.1 Management Outcomes

Management outcomes for nesting box management actions are provided below:

- Nesting boxes are maintained at least every two years after installation for five years, prior to July (commencement of breeding season), in accordance with current advice (Department of Parks and Wildlife, 2015):
  - condition of any chewing posts present (may need to be replaced annually)
  - condition and security of attachment points
  - condition of hollow bases, including drainage
  - presence of any cracks
  - stability of tree or pole for which the nesting box is attached.

**Table 20** provides a summary of the expected management schedule to be implemented for nest box installation, noting that the frequency of inspections will be informed by indicators of use.

Table 20 Nest box installation management action schedule

Management activity	Year 0 Yea	r 1	Year 2	Year 3	Year 4	Year 5	Year 10	Year 15	Year 20	Year 25	Year 30	Year 35
Installation of nest boxes	✓											
Monitoring of nesting boxes			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Nest box maintenance				✓		✓	✓	✓	✓	✓	✓	✓
Reporting outcomes in Clearing Permit Annual Compliance Report			<b>√</b>	✓	✓	<b>√</b>	✓	<b>√</b>	✓	<b>√</b>	<b>√</b>	<b>√</b>
Reporting outcomes in EPBC Act Annual Compliance Report			✓	✓	✓	<b>√</b>	✓	✓	✓	✓	<b>√</b>	<b>√</b>

Year 0 = Commencement of the Action

### 11.6.2 Nest Box Completion Criteria

Completion criteria for nest box installation within the offset area are outlined below:

- A minimum of 7 nesting boxes of a suitable design are installed.
- Nest boxes satisfy the requirements of the Artificial Hollows for Black Cockatoos (DBCA, 2023).

# 11.7 Additional Offset Area Management Actions

In addition to the key management actions outline in the above sections, further management actions and restrictions described in **Table 21** will also be enforced across the offset area for a period of 35 years.

Table 21 Additional management actions and offset area restrictions

Restriction	Description
Staff awareness training	All internal staff, external contractors and landholders accessing the offset area will be made aware of this OMP and its management actions as they pertain to operational activities.
Unauthorised access	Access to the offset area should be minimised wherever practicable and should be limited to authorised personnel only. Only the landholder and authorised personnel / contractors will be granted access to the offset area. Gates to the offset area will be locked. Existing fencing and locks will be maintained, and new fencing and locks established where required for access restriction. Signage will be established at all access points of the offset area that states the area is protected for conservation purposes and is restricted to authorised personnel only. The offset area will be demarcated on all site plans.
Access tracks	Vehicle movement will be restricted to designated access tracks, existing firebreaks and fencelines which will be maintained. Tracks will be maintained no wider than 4 m and vegetation disturbance is to be minimised.
Firebreaks	Existing firebreaks will be maintained annually and new firebreaks installed where required.
Hygiene protocols	Phytophthora cinnamomi is a plant pathogen that causes dieback of vegetation including species that have been selected for revegetation works within the offset area and is spread via water, soil or plant material that contains the pathogen, particularly in moist or wet conditions. Cases of P. cinnamomi have been recorded near the offset area and will cause severe harm if introduced and spread into the offset area. To prevent the introduction and spread into the offset area the following hygiene protocols will be followed:
	<ul> <li>Every vehicle, equipment, plant and materials required to enter the offset area will be clean on entry into the offset area.</li> </ul>
	<ul> <li>Vehicles and machinery will be free of any evidence of soil and mud prior to entry or access will be denied.</li> </ul>
	<ul> <li>The disinfection of shoes (including the underside) using Phytoclean® or a 70% methylated spirits/30% water spray applied prior to entering the site.</li> </ul>
Timber harvesting and firewood collection	No timber harvesting and/or firewood collection is permitted within the offset area.
Fodder harvesting	No harvesting of vegetation for fodder is permitted within the offset area.
Erosion monitoring and maintenance	Erosion monitoring will be conducted across the offset area on an annual basis in conjunction with the firebreak, access track and fenceline monitoring requirements. Areas identified as being impacted by erosion will be appropriately managed by the proponent.

# 11.8 Species-specific Management Objectives

The management measures outlined above have been informed by key threats, recovery actions and management priorities from species listing advice, conservation advice, recovery plan and threat abatements plan.24 **Table 22** provides a summary of how the proposed management measures address key threats and will provide a positive conservation outcome for Carnaby's cockatoo.

Table 22 Species-specific management objectives

Key threat	Management outcome	Management action to address key threat
Loss of breeding habitat	No further loss of breeding habitat	<ul> <li>The offset area will be secured and protected from development activities they may cause impacts to the species (see Section 15). Fencing will be established around the perimeter of the offset area and only the landholder and authorised personnel will be granted access.</li> </ul>

Key threat	Management outcome	Management action to address key threat		
		<ul> <li>A minimum of 7 nest boxes will be installed and built to specifications outlined in the species conservation advice (see Section 11.6).</li> </ul>		
Loss of non-breeding foraging and night roosting habitat	No further loss of non-breeding foraging and night roosting habitat	<ul> <li>The offset area will be secured and protected from development activities that may cause impacts to the species (see Section 15).</li> </ul>		
		<ul> <li>The offset area will expand foraging and roosting habitat within the landscape and improve the quality of habitat through the revegetation of 17.6 ha. Revegetation includes planting and/or seeding preferred tree species including those recognised for roosting and foraging (see Section 11.3).</li> </ul>		
Tree health decline from plant pathogens	Tree health does not decline due to plant pathogens and plant pathogens are not introduced and spread in the offset area	<ul> <li>The offset will be fenced and only the landholder and authorised personnel will be granted access. Hygiene protocols will be followed by all personnel entering the offset area (see Section 11.7).</li> </ul>		
Mining and extraction activities	No mining and extraction activities will occur within the offset area	<ul> <li>The offset area will be secured and protected from development activities they may cause impacts to the species (see Section 15).</li> </ul>		
Illegal shooting	No illegal shooting will occur within the offset area	<ul> <li>Fencing will be established around the perimeter of the offset area and only the landholder and authorised personnel will be granted access.</li> </ul>		
Illegal taking	No illegal taking will occur within the offset area	<ul> <li>Fencing will be established around the perimeter of the offset area and only the landholder and authorised personnel will be granted access.</li> </ul>		
Climate change	Revegetation meets completion criteria and provides suitable habitat	<ul> <li>Completion criteria have been established. Monitoring sites and reference sites will be established to assess the effectiveness of management actions and progression of the offset towards completion criteria (see Section 11.3).</li> </ul>		
Collision with motor vehicles	No collisions with motor vehicles occur within the offset area	<ul> <li>Vehicle movement will be limited to designated access tracks and will follow speed restrictions and/or track conditions.</li> </ul>		
Disease	Pathogens will not be introduced and spread within the offset area	<ul> <li>Hygiene protocols will be followed by all personnel entering the offset area from areas outside of the region (see Section 11.7).</li> </ul>		

# 12 Monitoring and Reporting

This section outlines the monitoring program that will be implemented to evaluate the overall success of the management actions described this OMP and track the progress of the offset area towards the interim milestones and completion criteria for Carnaby's cockatoo. Monitoring Reports will be prepared every 5 years from Commencement and will be additional to the annual reporting requirements of the Project's Approvals. The ongoing completion of these Monitoring Reports after the completion criteria have been met will ensure that the criteria are maintained for the duration of the approval. The Monitoring Reports will be used to document the progress of the offset area and determine whether corrective actions (**Section 13**) are required to meet and maintain the milestones and completion criteria. The Monitoring Reports will be additional to the annual reporting requirements of the Project's Approvals.

# 12.1 Monitoring Program Objectives

Suitable offsets must have transparent governance arrangements including being able to be readily measured, monitored, audited and enforced. The monitoring program is designed to support operational decision-making, specifically to:

- Assess the effectiveness of management actions to achieve interim milestones and completion criteria.
- Apply appropriate corrective actions to achieve interim milestones and completion criteria.

The monitoring program will:

- Confirm all prescribed management actions have been undertaken within the designated timeframe and monitoring period.
- · Regularly assess the effectiveness of management actions to identify areas of improvement.
- Establish permanent monitoring locations (reference sites and sites within the offset area) to assess habitat quality.
- Assess habitat quality at each permanent monitoring location within each monitoring period.
- Assess presence, abundance and habitat utilisation of the offset by Carnaby's cockatoo.
- · Confirm performance objectives have been met at the end of each monitoring period.

# 12.2 Monitoring Methods

To track the progress of the offset area towards the interim milestones and completion criteria, monitoring methods will follow the same methodology that was used to collect the baseline information within the offset area.

A minimum of one permanent monitoring site will be established within each VSA within the offset area and future assessments will follow the same methodology and be repeated consistently. Following the same methodology to collect baseline habitat quality data at the same site locations will enable a consistent data collection process, which will inform ongoing offset management strategies and measure temporal changes in habitat quality from the onset of the monitoring program.

# 12.3 Reporting Objectives

Environmental offsets must have transparent governance arrangements including being able to be readily measured, monitored, audited and enforced. To support transparent governance arrangements, and demonstrate compliance with the OMP, regular compliance reporting is proposed to occur.

Each Monitoring Report will be prepared and submitted to DCCEEW and DWER every 5 years from Commencement.

The Monitoring Report will be prepared by suitably qualified personnel with experience in offset management and threatened species.

The Monitoring Report will include:

- A summary of the climatic conditions across the offset area during the preceding monitoring period and how
  this could have impacted the offset area, implementation of management actions and habitat quality
  assessments.
- A summary of all habitat quality assessment data collected from the preceding monitoring period (including GPS locations of permanent monitoring locations and associated directional photographs of plot).
- A comparison of the current assessment data to the previous Monitoring Report data from the preceding
  monitoring period and an analysis of how the offset area is tracking against the interim milestones and
  completion criteria, with comparison the reference site condition.
- · A summary of all management actions implemented in the preceding monitoring period including:
  - Revegetation actions (including any supplementary planting)
  - Next box installations (including any maintenance and replacements)
  - Weed management actions
  - Pest fauna management actions
  - Fire management actions (including any burns undertaken or unplanned bushfires)
  - Fencing management actions (including any maintenance or damage)
  - Any other management actions.
- A list of recommended corrective actions required to keep the offset on track to meet future interim milestones and completion criteria.

Where identified during monitoring, updates to the OMP will be made to ensure appropriate changes to management and monitoring activities are documented (Section 16).

# 12.4 Data Management

All data collected as part of OMP implementation will be managed and stored appropriately. A data management framework will be established so that adequate data quality control and assurance and storage is undertaken.

Key features of the data management framework will include:

 Spatial data collection forms for use in the field to ensure the same methods of data collection are implemented for robustness and consistency

- Establishment of a geodatabase for management of spatial data
- Standard data collection methods for monitoring activities to enable comparison of results between each monitoring period
- Quality assurance and control review process by suitably qualified personnel for data and Monitoring Reports.

# 13 Adaptive Management and Corrective Actions

This section describes corrective actions that are additional and/or more intensive management measures that those currently proposed within the offset area, and if required, will be implemented in parallel to the existing management measures so that completion criteria will be achieved.

Where data from Monitoring Reports indicate management outcomes are not being achieved and inherently the offset area is not tracking towards the interim milestones and completion criteria (**Section 12**), the following will be implemented.

- 1. Within one month after detecting failure to meet an interim milestone, the Proponent will arrange for and complete an investigation into the reasons why the milestone and/or completion criteria were not achieved.
- 2. Within six months after detecting failure to meet an interim milestone, the Proponent will select, approve and implement an appropriate corrective action already listed or if another corrective action, not currently listed is identified as a viable solution, the Proponent will seek advice and approval from the DCCEEW and DWER prior to implementation.
- 3. Within six months after detecting failure to meet an interim milestone, a review of all current management actions, monitoring activities and corrective actions will be undertaken to assess effectiveness and improve areas that are failing. This information will be included in the following Monitoring Report.
- 4. If improved or additional management actions and/or offset area are proposed and are substantially different from those in this OMP, a revised OMP will be submitted to DCCEEW and DWER.

# 14 Risk Assessment

This section of the OMP presents a risk analysis and a risk management and mitigation strategy for the successful implementation of the OMP and timely achievement of the offset management outcomes. It includes a rating of all initial and post-mitigation residual risks in accordance with the risk assessment matrix in the *Environmental Management Plan Guidelines* (DCCEEW 2024).

The key risks have been assessed using qualitative likelihood (Table 23) and qualitative consequence ratings (Table 24Table 2424) with the interaction of likelihood and consequence determining the overall resultant risk. The risk assessment matrix is presented as Table 25.

Table 23 Qualitative measures for likelihood

Value	How likely is it that this event / issue will occur after control strategies are put in place
Highly likely	Is expected to occur in most circumstances
Likely	Will probably occur during the life of the Project
Possible	Might occur during the life of the Project
Unlikely	Could occur but considered unlikely or doubtful
Rare	May occur in exceptional circumstances

Table 24 Qualitative measure for consequence

Value	What will be the consequence / result if this issue does occur
Minor	Minor incident of environmental damage that can be reverse (e.g. short-term delays to achieving plan objectives, implementing low-cost, well-characterised corrective actions)
Moderate	Isolated but substantial instances of environmental damage that could be reversed with intensive efforts (e.g. short-term delays to achieving plan objectives, implementing well-characterised, high-cost/effort corrective actions)
High	Substantial instances of environmental damage that could be reversed with intensive efforts (e.g. medium-long term delays to achieving objectives, implementing uncertain, high-cost/effort corrective actions)
Major	Major loss of environmental amenity and real danger of continuing (e.g. plan objectives are unlikely to be achieved, with significant legislative, technical, ecological and/or administrative barriers to attainment that have no evidenced mitigation strategies)
Critical	Severe widespread loss of environmental amenity and irrecoverable environmental damage (e.g. plan objectives are unable to be achieved, with no evidenced mitigation strategies)

Table 25 Risk assessment matrix

Likelihood	Consequence					
	Minor (C1)	Moderate (C2)	High (C3)	Major (C4)	Critical (C5)	
Highly likely (L5)	Medium	High	High	Severe	Severe	
Likely (L4)	Low	Medium	High	High	Severe	
Possible (L3)	Low	Medium	Medium	High	Severe	
Unlikely (L2)	Low	Low	Medium	High	High	
Rare (L1)	Low	Low	Low	Medium	High	

Table 26 **Table 26** outlines the key identified risks which will influence the ability of the offset to achieve the conservation outcomes set out in this OMP, and effectiveness of identified management actions achieving the set management objectives. It outlines feasible mitigation measures to reduce the overall risk and failure of the offset.

The ratings assume that the risks are untreated, that is to say that they have not been treated by specific risk mitigation measures other than routine design and operational practice. The residual risk resulting from corrective actions applied to each risk event is then applied.



Table 26 Risk Assessment for the offset area

Risk	Description	Inherent risk (likelihood/consequence)	Mitigation measure	Timing	Residual risk (likelihood/consequence)	
Impacts to offset	Impacts to offset from biophysical risks and events					
Drought (extreme and/or prolonged weather event)	Loss of revegetation area due to drought.	Medium (L3/C2)	Where required, additional watering will be implemented according to weather conditions at the time of planting.  Monitoring of initial planting will be undertaken as per Section 11.4 and infill planting where required, will be implemented as per Section 11.3.4.  Any additional management recommendations made in the 5-yearly monitoring reports will also be implemented.	Initial planting will occur within 24 months of Commencement whilst infill planting will undertaken in the following two years (see Section 11.3.4).  Monitoring of initial planting will occur quarterly within the fourth year since Commencement and will occur annually the following year and every 5 years thereafter (see Section 11.4).		
Severe storms, flooding	Loss of revegetation area and nest boxes due to severe storms or flooding events.	Medium (L3/C3)	Monitoring of initial planting will be undertaken as per Section 11.4 and infill planting where required, will be implemented as per Section 11.3.4. Any additional management recommendations made in the 5-yearly monitoring reports will also be implemented.	Monitoring of initial planting will occur quarterly within the fourth year since Commencement and will occur annually the following year and every 5 years thereafter (see Section 11.4).		
Uncontrolled bushfire	Loss of revegetation area and nest boxes due to uncontrolled bushfire.	Severe (L3/C5)		Monitoring of initial planting will occur quarterly within the fourth year since Commencement and will occur annually the following year and every 5 years thereafter (see Section 11.4).		



Risk	Description	Inherent risk (likelihood/consequence)	Mitigation measure	Timing	Residual risl (likelihood/consequence)
			yearly monitoring reports will also be implemented.		
Impacts to offset	from Project management				
Impact to offsets due to lack of resources.	Seeds are not available when required, seedlings and/or tubestock of locally endemic Carnaby foraging species are not available	Medium (L2/C3)	Seed collection and preparation will occur no later than 12 months from Commencement and tubestock will be ordered by August-September prior to planting (see Section 11.3). More than NIASA accredited nursery will be contacted to confirm the quantity and type of local provenance tubestock is available.	Seed collection and tubestock ordering will occur within 12 month o Commencement.	Low (L2/C2) f
Impacts to the offset from ineffective revegetation technique implemented	Revegetation technique is not effective for the local environment, the non-foraging species planted outcompete the preferred foraging species	Medium (L3/C3)	Revegetation will include planting species of local provenance that are subject to the same environmental conditions as the offset area and planting ratios and density similar to reference sites and with preferred Carnaby's cockatoo planted at higher densities. Additional watering, monitoring of initial planting and infill planting will be undertaken to aid plant establishment (see Section 11.3).  Any additional management recommendations made in the 5-yearly monitoring reports will also be implemented.	See Section 11.3 for timing of revegetation management and monitoring measures to be implemented.	Low (L2/C2)
Impacts to offset due to ineffective revegetation sub- contractor	Revegetation contractor not effectively satisfying the	Medium (L3/C3)	Section 11.4 sets out internal monitoring that enable the change over time to be reviewed and assessed. These internal reporting	The timing and requirements of internal monitoring are set out in Section 11.4.	Low (L2/C2)



Risk	Description	Inherent risk (likelihood/consequence)	Mitigation measure	Timing	Residual risk (likelihood/consequence)
	relevant requirements on this OMP.		requirements will also serve as a tool to record the revegetation/management tasks undertaken by the sub-contractor. If it is established that the sub-contractor is not fulfilling the requirements of the OMP it will be put on notice. If on a second occasion a no-compliance with this OMP is identified a new subcontractor will be procured.		
Impacts to offset	from conflicting land uses				
Impacts to the offset from resource tenements and/or future development	The offset area is located on freehold land and mining and/or exploration leases are located outside of the offset area.		place so that future development activities do not occur in the offset area.  The offset area will be legally	The offset area will be legally secured within 6 months of Commencement.  A conservation covenant will be placed over the offset to ensure its ongoing protection for conservation within 36 months of Commencement	Medium (L1/C4)
Impacts to the offset from unauthorised access	Unauthorised access and activities have potential to degrade the ecological values of the offset. These activities could include:  • 4WD access – erosion of tracks particularly after rain, introduction and spread of weeds  • Timber harvesting	Medium (L3/C2)	fenced, gates installed and locked. Only the landholder and authorised personnel will be granted access.	Fencing is installed within 6 months of Commencement.  Fence and/or gates will be repaired as soon as practicable if damaged through unauthorised access by others.	Low (L2/C2)



Risk	Description	Inherent risk (likelihood/consequence)	Mitigation measure	Timing	Residual risk (likelihood/consequence)
	<ul> <li>Dumping of rubbish, general pollution and contamination.</li> </ul>				
Impacts to the offset from failure to legally secure the area/place under a conservation covenant.	The offset is not legally protected under the conservation covenant mechanism.	High (L2/C4)	9 ,	A conservation covenant will be submitted for registration within 12 months of commencement of the action.	Low (L1/C3)
Expanding availab	ole habitat and increasing ha	abitat quality			
Revegetation and habitat quality score not achieved in timeframes set	Revegetation is proposed to be actively managed to increase extent of native woodland and habitat across the offset area.  Other management actions are also proposed to improve habitat quality including weed management, fire management and pest animal control.	High (L4/C3)	If revegetation outcomes not progressing towards interim milestones or completion criteria, additional intervention including increased frequency and intensity of management and monitoring actions (e.g. infill planting) will be undertaken.	Regular monitoring activities will provide an indication of success of the revegetation program and the need for corrective activities to be implemented	Medium (L3/C2)
Vegetation is impacted by <i>Phytophthora cinnamomi</i> within the offset	The plant pathogen is detected within the offset area.	High (L3/C4)	Hygiene protocols will be implemented and applicable to all authorised personnel accessing the offset area.  The offset will be regularly monitored to assess condition of vegetation and signs of infection.	Monitoring will co-occur during all other monitoring events for revegetation and nest box checks within the offset area.	Medium (L2/C3)



Risk	Description	Inherent ris (likelihood/consequence)	Mitigation measure	Timing	Residual risk (likelihood/consequence)
			Where signs of damage from the plant pathogen is suspected, hygiene protocols will be revised and improved.  Tubestock will be sourced from a NIASA accredited nursery		
Nest box installation not successful	Nest boxes are damaged or used by other species.	Medium (L3/C2)	Design and installation in accordance with current advice  Monitoring for damage a in accordance with <b>Table 20</b> .	Nesting boxes are repaired as soon as practicable, and where possible, during the regular site visits, such as replacement of sacrificial chewing posts and repair of any cracks in the bases of next boxes.	Low (L2/C2)
Introduction, establishment and spread of weeds as a result of access to OMP. Weed populations do not reduce or increase.	Weeds carried on vehicles, plant, machinery and equipment may be introduced and/or further spread and subsequently colonise disturbed ground, leading to increased risk of competition with regenerating native plants / increased biomass resulting in heightened bushfire risk. Weeds may outcompete regenerating native grasses and tree species.	High (L4/C3)	Baseline weed surveys to determine which species are present and to inform appropriate weed management prior to initial planting. Vehicles clean on entry Removal of the pasture and associated seedbank as per strategies outlined in Table 19. Weed control will be undertaken following results from the monitoring event.  Site access and hygiene protocols as per will be implemented by all authorised personnel entering the offset area.  If weeds are not decreasing or new species are introduced, a review of measures will be undertaken, and weed control efforts increased.	Weed controls will be applied 24 months prior to initial planting.  Monitoring events within 12 months of initial planting and or seeding will occur every 3 months to check for damage to seedlings due to weeds, then twice- annually (spring and autumn) for the following year, then 5-yearly until completion criteria are achieved (Table 19).	Medium (L3/C2)



Risk	Description	Inherent risk (likelihood/consequence)	Mitigation measure	Timing	Residual risk (likelihood/consequence)
Uncontrolled animal herbivory (from livestock, feral and native animals that may be present)	Uncontrolled herbivory can pose a threat to the establishment of revegetation	Medium (L3/C3)	Appropriate fencing will be installed around the perimeter of the offset area.  Tree guards will be installed around plants to prevent herbivory where required.	Fencing is installed within 6 months of Commencement.  Monitoring events within 12 months of initial planting and or seeding will occur every 3 months to check for damage to seedlings due to weeds, then twice- annually (spring and autumn) for the following year, then 5-yearly until completion criteria are achieved Table 19.	Low (L2/C2)



# 15 Commercial Arrangement and Governance

The Proponent has legal agreements in place to lease the offset area from the current owners for the duration of the operational life of the wind farm for the purpose of restoring the area in accordance with the OMP. The Proponent will be the responsible manager of the proposed offset for the operational life of the Waddi Wind Farm. The offset is proposed to be secured by way of conservation covenant under either the *Biodiversity Conservation Act 2016* (WA) or *Soil and Land Conservation Act 1945* (WA) to ensure it is retained in perpetuity.



# 16 Review and Update of OMP

This OMP follows an adaptive management approach and will be reviewed every five years and updated as required. The review will incorporate recommendations and changes identified through management actions and monitoring activities. In addition to this regular review process, the OMP will also require a review under the following circumstances:

- When there is a substantial modification to the management, monitoring or corrective actions.
- When corrective triggers are exceeded from site inspections or corroborated anecdotal reports.
- When and/or if there is a modification of best practice methods that could benefit the offset area.

When this document is updated, DCCEEW will be notified and the OMP will be provided to DCCEEW and DWER for approval.



# 17 References

Biodiversity Conservation Act 2016 (WA)

Bamford Consulting Ecologists (BCE). 2025a. Waddi Wind Farm – Assessment of Potential Offset Sites. Unpublished report prepared for Waddi Wind Farm Pty Ltd.

Bamford Consulting Ecologists (BCE). 2025b. Waddi Wind Farm Project Carnaby's Black-Cockatoo and Forktailed Swift Utilisation Survey Report. Unpublished report prepared for Waddi Wind Farm Pty Ltd.

Bureau of Meteorology, Climate Statistics – Badgingarra Research Station, Station ID 009037. Accessed August 2025, <a href="http://www.bom.gov.au/climate/averages/tables/cw">http://www.bom.gov.au/climate/averages/tables/cw</a> 009037 All.shtml.

Department of Agriculture Water and the Environment (DAWE). 2022. Referral guideline for 3 WA threatened black cockatoo species. Accessed July 2025, <a href="https://www.dcceew.gov.au/sites/default/files/documents/referral-guideline-3-wa-threatened-black-cockatoo-species-2022.pdf">https://www.dcceew.gov.au/sites/default/files/documents/referral-guideline-3-wa-threatened-black-cockatoo-species-2022.pdf</a>.

Department of Biodiversity, Conservation and Attractions (DBCA) Biodiversity Information Office. 2025. Dandjoo Biodiversity Data Repository. Accessed May 2025, <a href="https://dandjoo.bio.wa.gov.au/">https://dandjoo.bio.wa.gov.au/</a>.

Department of Biodiversity, Conservation and Attractions (DBCA). 2023. Fauna Notes – Artificial Hollows for Black Cockatoos. Accessed August 2025, https://www.dbca.wa.gov.au/management/threatened-species-and-communities/resources/threatened-and-priority-fauna-resources.

Department of Climate Change, Energy, the Environment and Water (DCCEEW). 2024a. Environmental Management Plan Guidelines. Accessed July 2025, https://www.dcceew.gov.au/sites/default/files/documents/environmental-management-plan-guidelines.pdf.

Department of Climate Change, Energy, the Environment and Water (DCCEEW). 2024b. Threat abatement plan for predation by feral cats. Accessed July 2025, https://www.dcceew.gov.au/environment/biodiversity/threatened/publications/tap/threat-abatement-plan-feral-cats.

Department of Primary Industries and Regional Development (DPIRD). 2023. Native Vegetation Extent (DPIRD-005). Accessed July 2025, https://catalogue.data.wa.gov.au/dataset/native-vegetation-extent.

Department of Parks and Wildlife. 2013. Carnaby's black cockatoo (*Calyptorhynchus latirostris*) Recovery Plan. Accessed July 2025, https://www.dcceew.gov.au/environment/biodiversity/threatened/recovery-plans/calyptorhynchus-latirostris-recovery-plan.

Department of Parks and Wildlife. 2015. How to design and place artificial hollows for Carnaby's Cockatoo. Accessed August 2025 via: A1727922 2018-10-12 - CPS 7869-1 - Schedule 1.PDF

Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC). 2012a. *Environmental Protection and Biodiversity Conservation Act 1999* Environmental Offsets Policy. Accessed May 2025, https://www.dcceew.gov.au/sites/default/files/documents/offsets-policy\_2.pdf.

Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC). 2012b.Referral Guidelines for Three Threatened Black Cockatoo Species: Carnaby's Cockatoo (endangered) (*Calyptorhynchus latirostris*), Baudin's Cockatoo (vulnerable) (*Calyptorhynchus baudinii*), Forest Red-tailed Black Cockatoo (vulnerable) *Calyptorhynchus banksii naso*. Accessed May 2025, https://www.agriculture.gov.au/sites/default/files/documents/referral-guidelines-wa-black-cockatoo.pdf.



Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC). 2012c. How to use the Offsets Assessment Guide. Accessed May 2025, <a href="https://www.dcceew.gov.au/sites/default/files/documents/offsets-how-use.pdf">https://www.dcceew.gov.au/sites/default/files/documents/offsets-how-use.pdf</a>.

Department of Water and Environmental Regulation (DWER). 2018. A Guide to Preparing a Revegetation Plans for Clearing Permits. Accessed August 2025, <a href="https://www.wa.gov.au/system/files/2023-05/A-guide-to-preparing-revegetation-plans-for-clearing-permits.pdf">https://www.wa.gov.au/system/files/2023-05/A-guide-to-preparing-revegetation-plans-for-clearing-permits.pdf</a>.

Department of Water and Environmental Regulation (DWER). 2021a. WA Environmental Offsets Calculator. Accessed May 2025, https://www.wa.gov.au/system/files/2021-11/DWER\_WA\_environmental\_offsets\_calculator\_v1.1.zip.

Department of Water and Environmental Regulation (DWER). 2021b. Environmental Offsets Metric: Quantifying environmental offsets in Western Australia. Accessed May 2025, https://www.wa.gov.au/system/files/2021-10/DWER Environmental offsets metric Quantifying environmental offsets in WA.pdf.

Department of Water and Environmental Regulation (DWER). (2022). Draft procedure for environmental offsets metric inputs. Accessed July 2025, https://www.wa.gov.au/system/files/2023-11/draft-procedure-for-environmental-offsets-metric-inputs.pdf.

Desmond, A. and A. Chant. 2001. Geraldton Sandplain 3 (GS3 Lesueur Sandplain subregion. From 'A Biodiversity Audit of Western Australia's 53 Biogeographical subregions in 2002. Jelena May and Norm McKenzie Editors. Department of Conservation and Land Management, Perth, Western Australia.

Ecologia Environment. 2016. Supplementary Flora, Vegetation and Fauna Survey. Unpublished report prepared for Waddi Wind Farm Pty Ltd.

Environmental Protection Act 1986 (WA).

Environment Protection and Biodiversity Conservation Act 1999 (Cth).

Environmental Protection Authority. (2016). Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment, accessed May 2025 via URL: https://www.epa.wa.gov.au/sites/default/files/Policies\_and\_Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey Dec13.pdf.

Government of Western Australia (GoWA). 2011. WA Environmental Offsets Policy. Accessed May 2025, https://www.epa.wa.gov.au/sites/default/files/Policies\_and\_Guidance/WAEnvOffsetsPolicy-270911.pdf.

Government of Western Australia (GoWA). 2014. WA Environmental Offsets Guidelines. Accessed May 2025, <a href="https://www.epa.wa.gov.au/sites/default/files/Policies\_and\_Guidance/WA%20Environmental%20Offsets%20Guideline%20August%202014.pdf">https://www.epa.wa.gov.au/sites/default/files/Policies\_and\_Guidance/WA%20Environmental%20Offsets%20Guideline%20August%202014.pdf</a>.

Groom, C. 2011. Plants used by Carnaby's Black. Accessed in July, <a href="https://www.armadale.wa.gov.au/sites/default/files/assets/documents/docs/Environmental\_Management/cockat\_oo.pdf">https://www.armadale.wa.gov.au/sites/default/files/assets/documents/docs/Environmental\_Management/cockat\_oo.pdf</a>

Johnstone, R. 2010. Information Sheet Carnaby's black cockatoo *Calyptorhynchus latirostris*. Accessed July 2025, https://museum.wa.gov.au/sites/default/files/Carnaby's%20Cockatoo%20-%20English%20-%20Info%20Sheet.pdf

Keighery, B. 1994. Bushland Plant Survey: A guide to plant community survey for the community, Wildflower Society of WA (Inc), Nedlands.

Maseyk, F., Evans, M., and Maron, M. 2017. Guidance for Deriving 'Risk of Loss' Estimates when Evaluating Biodiversity Offset Proposals under the EPBC Act, Report to the National Environmental Science Program,



Department of the Environment and Energy. Accessed May 2025, https://www.nespthreatenedspecies.edu.au/media/zpyajjq1/5-1-guidance-for-deriving-risk-of-loss-report\_2017\_low-res.pdf.

Outback Ecology. 2014. Waddi Wind Farm Spring Flora and Vegetation Survey and Black Cockatoo Habitat Survey. Unpublished report prepared for RPS.

RPS. 2023. Reconnaissance flora and vegetation assessment. Waddi Wind Farm. Unpublished report prepared for Waddi Wind Farm Pty Ltd.

RPS. 2025a. Preliminary Documentation - Waddi Wind Farm (EPBC 2023/09639). Unpublished report prepared for Waddi Wind Farm Pty Ltd.

RPS. 2025b. Targeted star sun-orchid and sandplain duck orchid searches. Unpublished report prepared for Tilt Renewables

Soil and Land Conservation Act 1945 (WA).

Terrestrial Ecosystems. 2022. Black-Cockatoo habitat assessment for the Waddi Wind Farm transmission line alignment and the nominated areas in the adjacent farmland. Unpublished report prepared for RPS.

Trudgen, M.E. 1988. A Report on the Flora and Vegetation of the Port Kennedy Area. Unpublished report prepared for Bowman Bishaw and Associates, West Perth.



Appendix A (CPS10418/1)

**Clearing** 

**Permit** 



### **CLEARING PERMIT**

Granted under section 51E of the Environmental Protection Act 1986

**Purpose Permit number:** CPS 10418/1

**Permit Holder:** Waddi Wind Farm Pty Ltd

**Duration of Permit:** From 22 June 2025 to 22 June 2055

The permit holder is authorised to clear *native vegetation* subject to the following conditions of this permit.

#### ADVICE NOTE

### Revegetation and rehabilitation offset

The Offset Management Plan referred to in condition 10 of this permit is intended to facilitate the revegetation and rehabilitation within the offset site to restore 17.60 hectares of foraging habitat for Carnaby's cockatoo (Zanda latirostris (previously Calyptorhynchus latirostris)).

### PART I - CLEARING AUTHORISED

### 1. Clearing authorised (purpose)

The permit holder is authorised to clear *native vegetation* for the purpose of geotechnical investigation and construction of a wind farm and associated infrastructure.

### 2. Land on which clearing is to be done

Lot 3899 on Deposited Plan 209567, Cataby

Lot 3805 on Deposited Plan 209083, Badgingarra

Lot 3903 on Deposited Plan 209569, Cooljarloo

Lot 3901 on Deposited Plan 209568, (Crown Reserve 27216), Cooljarloo

Lot 2 on Plan 8424, Cooljarloo

Lot 3 on Plan 8424, Cooljarloo

Lot 3897 on Deposited Plan 209569, Cooljarloo

Lot 101 on Diagram 72336, Cooljarloo

Lot 4134 on Deposited Plan 240347, (Crown Reserve 41986), Cooljarloo

Lot 105 on Deposited Plan 59027, Cooljarloo

Lot 3 on Deposited Plan 408189, Cooljarloo

Waddi Road reserve (PIN 1353722), Badgingarra and Cooljarloo

Brand Highway road reserve (PIN 11579146), Cooljarloo

Mullering Road reserve (PIN 11579147), Cataby and Cooljarloo.

### 3. Clearing authorised

The permit holder must not clear more than 5.5 hectares of *native vegetation* within the areas cross-hatched yellow in Figures 1A - 1J of Schedule 1.

### **PART II - MANAGEMENT CONDITIONS**

### 4. Avoid, minimise, and reduce impacts and extent of clearing

In determining the *native vegetation* authorised to be cleared under this permit, the permit holder must apply the following principles, set out in descending order of preference:

- (a) avoid the clearing of *native vegetation*;
- (b) minimise the amount of native vegetation to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

### 5. Weed and dieback management

When undertaking any clearing authorised under this permit, the permit holder must take the following measures to minimise the risk of introduction and spread of *weeds* and *dieback*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the *project area*;
- (b) ensure that no known *dieback* or *weed*-affected soil, *mulch*, *fill*, or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the *project* area.

### 6. Fauna management (geotechnical investigation) – backfilling

The Permit holder must:

- (a) backfill all test pits on the day of drilling/excavating with excavated material; or
- (b) fence all test pits on the day of drilling/excavating with fine mesh to prevent fauna access; or
- (c) cover all test pits on the day of drilling/excavating with a cover which prevents entry to the pits by fauna species;
- (d) cover all bore holes at the end of each day and backfill upon completion.

## 7. Fauna management - directional clearing

The Permit Holder must:

- (a) conduct clearing authorised under this permit in one direction towards adjacent native vegetation; and
- (b) allow a reasonable time for fauna present within the area being cleared to move into that adjacent *native vegetation* ahead of the clearing activity.

### 8. Threatened flora management

Prior to undertaking any clearing authorised under this Permit within Waddi Road reserve (PIN 1353722), Badgingarra and Cooljarloo and Lot 3901 on Deposited Plan 209568, Cooljarloo, within the areas cross-hatched yellow in Figures 1C and 1J of Schedule 1, the Permit Holder must:

- (a) demarcate the area authorised to be cleared; and
- (b) install fencing with windbreak netting along the boundary of the area authorised to be cleared where individuals of *Thelymitra stellata* occur as identified by RPS (2025).

### 9. Revegetation and rehabilitation (temporary works)

The permit holder must:

- (a) retain the vegetative material and topsoil removed by clearing authorised under this permit and stockpile the vegetative material and topsoil in an area that has already been cleared;
- (b) at an *optimal time* within 12 months following clearing authorised under this permit, *revegetate* and *rehabilitate* the areas that are no longer required for the purpose of geotechnical investigation and/or construction of a wind farm and/or associated infrastructure, by:
  - i ripping the ground on the contour to remove soil compaction; and
  - ii laying the vegetative material and topsoil retained under condition 9(a) on the cleared area(s).
  - (c) within 24 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 9(b) of this permit:
    - i. engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and
    - ii. where, in the opinion of an *environmental specialist*, the composition structure and density determined under condition 9(c)(i) of this Permit will not result in similar species composition, structure and density to that of prereferral clearing vegetation types in that area, *revegetate* the area by deliberately *planting* and/or *direct seeding native vegetation* that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area and ensuring only local provenance seeds and propagating material are used.

### 10. Offset – revegetation and rehabilitation requirements

- (a) Within 6 months of the commencement of clearing activities authorised under this permit, the permit holder must submit an *Offset Management Plan* to the *CEO* for approval for the *revegetation and rehabilitation* of a total of 17.60 hectares of the *offset site*. The *Offset Management Plan* must be developed in accordance with *A Guide to Preparing Revegetation Plans for Clearing Permits* (Department of Water and Environmental Regulation, 2018).
- (b) The Offset Management Plan must be prepared by an environmental specialist.
- (c) The Offset Management Plan must include the following:
  - the location/s of the *revegetation* and *rehabilitation* area/s required under condition 10(a) of this permit, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020),

expressing the geographical coordinates in Eastings and Northings or decimal degrees;

- (ii) site preparation;
- (iii) weed control;
- (iv) regeneration, direct seeding or planting, at an optimal time;
- (v) a vegetation establishment period;
- (vi) revegetation success completion criteria to restore foraging habitat for Carnaby's cockatoo (Zanda latirostris (previously Calyptorhynchus latirostris)) based on selected reference sites, including but not limited to target weed cover, target species diversity, target vegetation condition, target density, and target structure;
- (vii) remedial actions to be undertaken if completion criteria are not met;
- (viii) details of ongoing maintenance and monitoring of the area to be revegetated and rehabilitated for a minimum of five (5) years;
- (ix) timeframes for completion of the activities; and
- (x) management commitments that will be achieved.
- (d) If the *CEO*, having had regard to conditions 10(b) and 10(c) of this permit, does not approve the *Offset Management Plan*, the permit holder must revise and resubmit the *Offset Management Plan* within one (1) month of the date of the *CEO*'s decision.
- (e) If the CEO, having had regard to conditions 10(b) and 10(c) of this permit, does not approve a revised Offset Management Plan submitted in accordance with condition 10(d) of this permit, the permit holder must again revise and resubmit the Offset Management Plan in accordance with condition 10(d) of this permit.
- (f) The permit holder must obtain the approval of the *CEO*, prior to implementing the *Offset Management Plan*.
- (g) The permit holder must implement the approved *Offset Management Plan* within 12 months of the date of approval by the *CEO*.

### 11. Offset – Conservation Covenant

Within 36 months of the commencement of clearing authorised under this Permit, and no later than 22 June 2028, the Permit Holder must provide to the CEO evidence of setting aside the area *revegetated* and *rehabilitated* under Condition 10 for the protection and management of vegetation in perpetuity.

### PART III - RECORD KEEPING AND REPORTING

### 12. Records that must be kept

The permit holder must maintain records relating to the listed relevant matters in accordance with the specifications detailed in Table 1.

Table 1: Records that must be kept

No.	Relevant matter	Specifications							
1.	In relation to the authorised	(a) the species composition, structure, and density of cleared area;	the						
	clearing	(b) the location where the clearing occurred, recor	ded						

No.	Relevant matter	Specifications							
	activities generally	using a GPS unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings;  (c) the date that the area was cleared;  (d) the size of the area cleared (in hectares);  (e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 4;  (f) actions taken to minimise the risk of the introduction and spread of weeds and dieback in accordance with condition 5;  (g) evidence of backfilling / fencing / covering all excavations in accordance with condition 6  (h) actions taken to mitigate impacts to fauna in accordance with condition 7; and  (i) actions taken to avoid and minimise direct and indirect impacts of the clearing on threatened flora species in accordance with condition 8 of this Permit.							
2.	In relation to the revegetation and rehabilitation of areas pursuant to condition 9 of the permit	<ul> <li>(a) The size of the area revegetated and rehabilitated</li> <li>(b) The date(s) on which the revegetation and rehabilitation was undertaken; and</li> <li>(c) The boundaries of the area revegetated and rehabilitated (recorded digitally as a shapefile).</li> </ul>							
3.	In relation to the offset revegetation and rehabilitation or areas pursuant to conditions 10 and 11	<ul> <li>(a) A description of the revegetation and rehabilitation activities undertaken;</li> <li>(a) The size of the area revegetated and rehabilitated;</li> <li>(b) The date/s on which the revegetation and rehabilitation was undertaken;</li> <li>(c) The boundaries of the area revegetated and rehabilitated, recorded using a GPS unit set to GDA 2020, expressing the geographical coordinates in Eastings and Northings; and</li> <li>(d) any other actions taken in accordance with condition 10; and</li> <li>(e) evidence of setting aside the area revegetated and rehabilitated for the protection and management of vegetation in perpetuity.</li> </ul>							

### 13. Reporting

- (a) The permit holder must provide to the CEO, on or before 30 June of each calendar year, a written report conditioning:
  - (i) the records required to be kept under condition 12; and

- (ii) records of activities done by the permit holder under this permit between 1 January and 31 December of the preceding calendar year.
- (b) If no clearing authorised under this permit has been undertaken, a written report confirming that no clearing under this permit has been undertaken must be provided to the *CEO* on or before 30 June of each calendar year.
- (c) The permit holder must provide to the *CEO*, no later than 90 days prior to the expiry date of the permit, a written report of records required under condition 12, where these records have not already been provided under condition 13(a).

### **DEFINITIONS**

In this permit, the terms in Table have the meanings defined.

Table 2: Definitions

Term	Definition						
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the <i>Environmental Protection Act 1986</i> .						
clearing	has the meaning given under section 3(1) of the EP Act.						
condition	a condition to which this clearing permit is subject under section 51H of the EP Act.						
department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.						
dieback	means the effect of <i>Phytophthora</i> species on native vegetation.						
direct seeding	means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species.						
environmental specialist	means a person who holds a tertiary qualification in environmental science or equivalent, and has a minimum of two (2) years work experience relevant to the type of environmental advice that an environmental specialist is required to provide under this permit, or who is approved by the CEO as a suitable environmental specialist.						
EP Act	Environmental Protection Act 1986 (WA)						
fill	means material used to increase the ground level, or to fill a depression.						
local provenance	means native vegetation seeds and propagating material from natural sources within 50 kilometres and the same IBRA subregion of the area cleared.						
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.						
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.						
offset	means a direct offset as described in the Government of Western Australia, WA Environmental Offsets Policy, September 2011.						
Offset Management Plan	means a document describing the environmental offsets that will be implemented by the permit holder to cover the full cost of establishing and maintaining native vegetation that provides foraging habitat for Carnaby's cockatoo as an environmental offset for the clearing activities						

Term	Definition							
	authorised under this permit.							
offset site	means a property or its portion within the proximity of the proposed clearing to counterbalance the significant residual impacts of native vegetation authorised under this permit. As the acquisition of land tenure associated with the offset site is still being finalised, the Department is unable to disclose property details at the time of the decision due to commercial sensitivity.							
optimal time	means the period from April to June							
planting	means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species.							
project area	Means the area shown as the project area within " <u>Attachment 1 WDWF-Infrastructure Map-2023</u> " of the application for CPS 10418/1.							
reference sites	means nearby sites used to provide baseline data for planning a revegetation project. Measurements from fixed reference points or plots where biodiversity components are measured are used to set measurable completion criteria for revegetation projects. The reference sites must contain the following values:							
	• suitable foraging habitat for Zanda latirostris (previously Calyptorhynchus latirostris) (Carnaby's cockatoo); and							
	• vegetation in a Very Good (Keighery, 1994) or better condition.							
regenerate/ regenerated / regeneration	means re-establishment of vegetation from in situ seed banks and propagating material (such as lignotubers, bulbs, rhizomes) contained either within the topsoil or seed-bearing mulch.							
rehabilitate/ rehabilitated/ rehabilitation	means actively managing an area containing native vegetation in order to improve the ecological function of that area.							
remedial action/s	means any activity that is required to ensure successful reestablishment of vegetation to its pre-clearing composition, structure and density, and may include a combination of soil treatments and <i>revegetation</i> .							
revegetate/ revegetated/ revegetation	means the re-establishment of a cover of local provenance native vegetation in an area using methods such as natural <i>regeneration</i> , <i>direct seeding</i> and/or <i>planting</i> , so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.							
site preparation	means management of existing site topsoil and preparation of the finished soil surface, for example by ripping or tilling the soil surface and respreading site topsoil and chipped native vegetation.							
vegetation establishment period	means a period of at least two summers after the <i>revegetation</i> during which time replacement and infill <i>revegetation</i> works may be required for areas in which <i>revegetation</i> has been unsuccessful and involves regular inspections of <i>revegetation</i> sites to monitor the success of revegetation.							
weeds	means any plant –  (a) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i> ; or  (b) published in a Department of Biodiversity, Conservation and							

### **OFFICIAL**

Term	Definition
	Attractions species-led ecological impact and invasiveness
	ranking summary, regardless of ranking; or
	(c) not indigenous to the area concerned.

### **References:**

Department of Water and Environmental Regulation. (2018). *A guide to Preparing Revegetation Plans for Clearing Permits*. March 2018. Available at this link.

RPS. (2025). Waddi Wind Farm: Targeted star sun orchid and sandplain duck orchid searches. DWER Ref: DWERDT1119974

### **END OF CONDITIONS**

B. Walker.

Belinda Walker EXECUTIVE DIRECTOR GREEN ENERGY

Officer delegated under Section 20 of the Environmental Protection Act 1986

30 May 2025

### Schedule 1

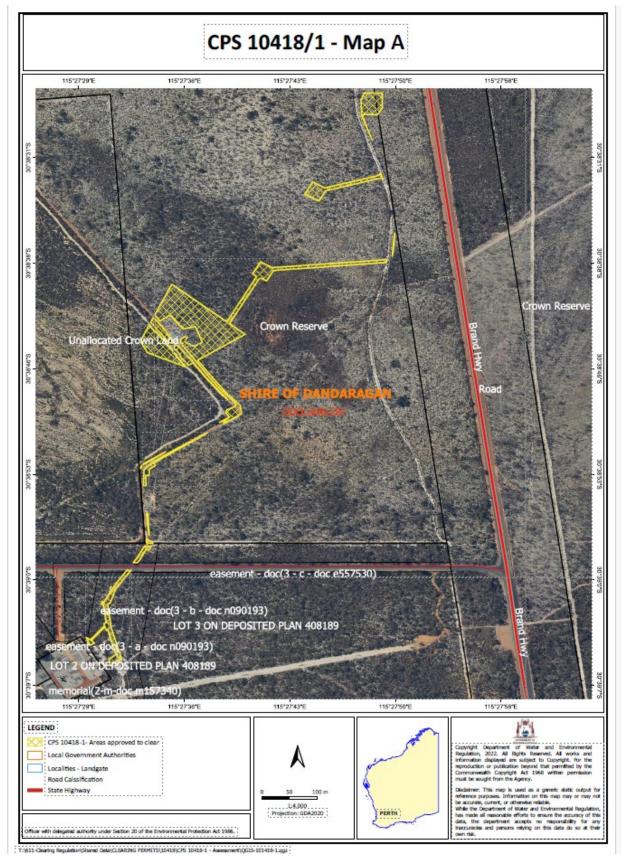


Figure 1A: Map of the boundary of the area within which clearing may occur.

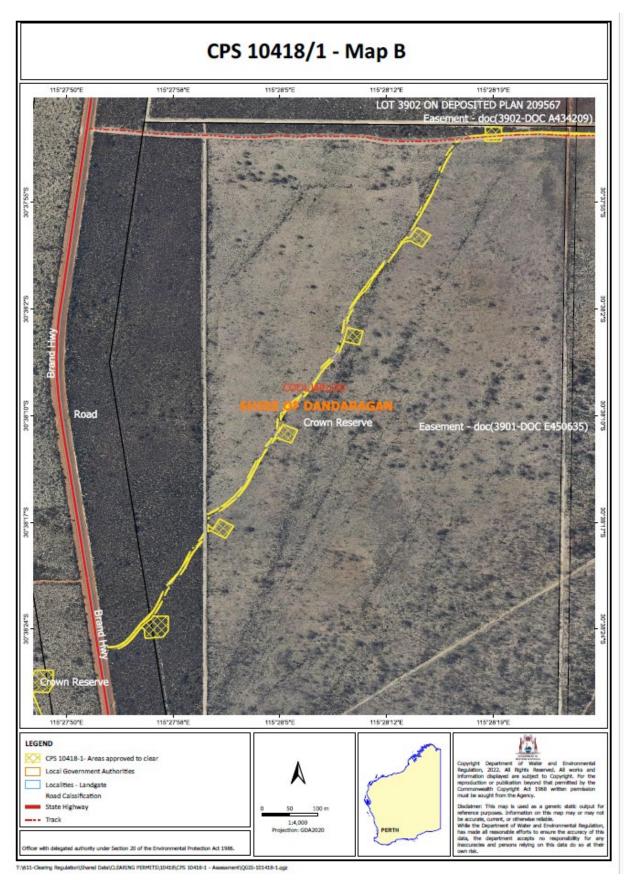


Figure 1B: Map of the boundary of the area within which clearing may occur.



Figure 1C: Map of the boundary of the area within which clearing may occur.

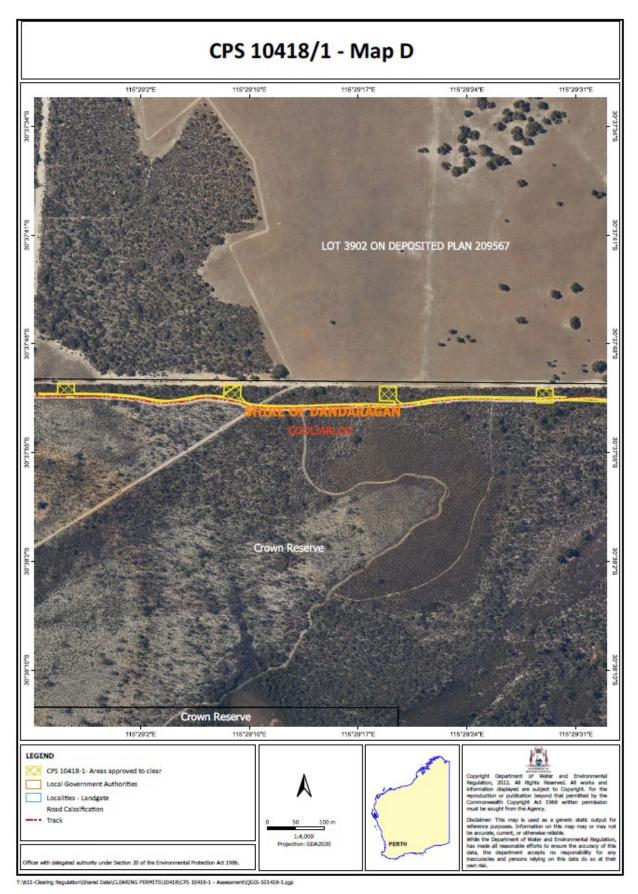


Figure 1D: Map of the boundary of the area within which clearing may occur.

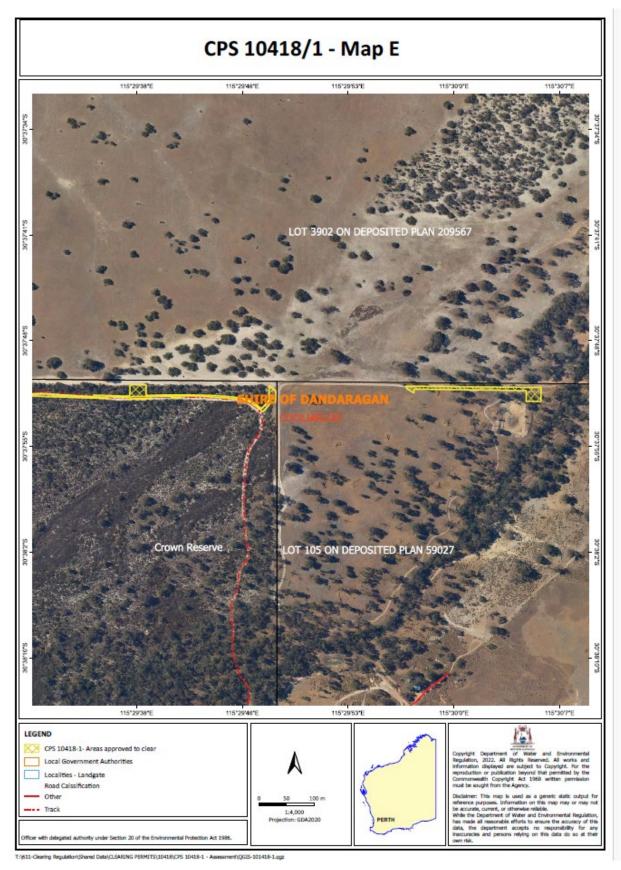


Figure 1E: Map of the boundary of the area within which clearing may occur.



Figure 1F: Map of the boundary of the area within which clearing may occur.

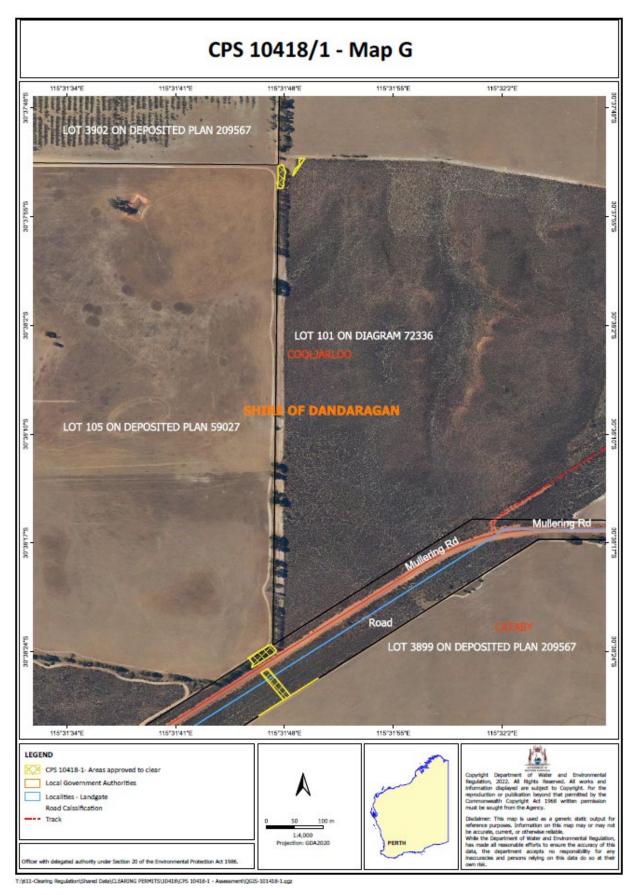


Figure 1G: Map of the boundary of the area within which clearing may occur.

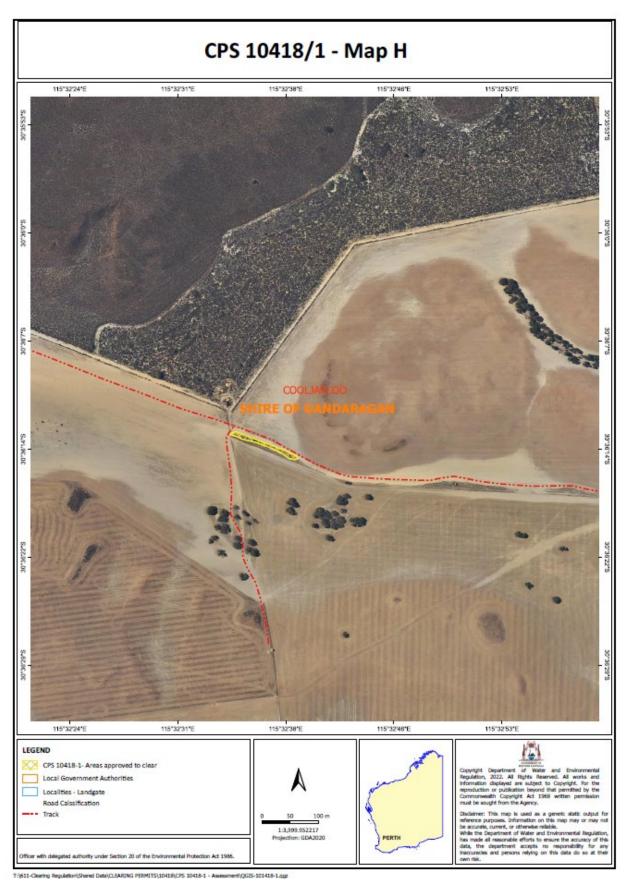


Figure 1H: Map of the boundary of the area within which clearing may occur.



Figure 1I: Map of the boundary of the area within which clearing may occur.

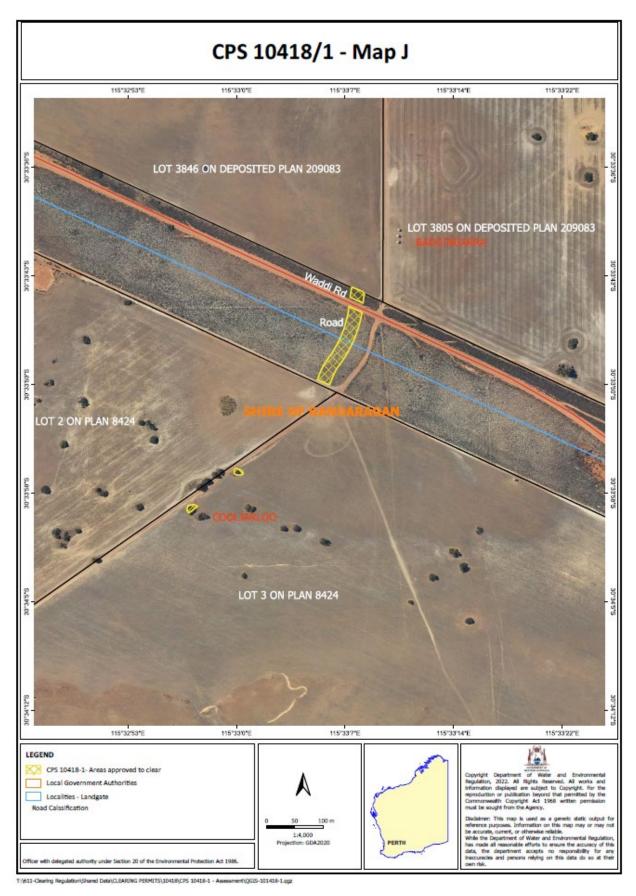


Figure 1J: Map of the boundary of the area within which clearing may occur.



# Appendix B EPBC Assessment Guide

Offset

### Offsets Assessment Guide

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

This guide relies on Macros being enabled in your browser.

Matter of National Environmental Significance									
Name	Carnaby's cockatoo								
EPBC Act status	Endangered								
Annual probability of extinction	1.2%								

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

			Impact calcul	lator											
	Protected matter attributes	Units	Information source												
			Ecological c	ommunities											
				Area											
	Area of community	No		Quality											
				Total quantum of impact	0.00										
	Threatened species habitat														
			- 5.33ha of high- quality Carnaby's cockatoo foraging	Area	5.51	Hectares									
ator	Area of habitat	Yes	- 21 pine trees providing high- quality foraging and potential	Quality	5	Scale 0-10	RPS (2025)								
Impact calculator			and potential roosting habitat -3 marri trees providing high	Total quantum of impact	2.76	Adjusted hectares									
Imp	Protected matter attributes	Attribute relevant to case?	Description	Quantum of imp	act	Units	Information source								
	Number of features e.g. Nest hollows, habitat trees	Yes	mature Marri with	3		Count	RPS (2025)								
	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 calculator																					
	Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horizon	(years)	Start are quali		Future are quality witho		Future are quality with		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 Con	nmunities										
						Risk-related time horizon		Start area		Risk of loss (%) without offset		Risk of loss (%) with offset										
	Area of community	No				(max. 20 years)		(hectares)		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)										
										Threate	ned spec	ies habitat										
						Time over				Risk of loss (%) without offset	1%	Risk of loss (%) with offset	20%									
ator	Area of habitat	Yes	2.76	Adjusted hectares		which loss is averted (max. 20 years)	20	Start area (hectares)		Future area without offset (adjusted hectares)	17.4	Future area with offset (adjusted hectares)	14.1	-3.34	85%	-2.84	-2.24	4.14	150.22%	Yes		
Offset calculator						Time until ecological benefit	10	Start quality (scale of 0- 10)	2	Future quality without offset (scale of 0-10)	1	Future quality with offset (scale of 0-10)	5	4.00	85%	3.40	3.02	 				
	Protected matter attributes	Attribute relevant to case?	Total quantum of impact	Units	Proposed offset	Time horizon	(years)	Start v	alue	Future value offset		Future valuoffse		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	3	Count	Seven artificial nest boxes	2		5		0		8		8	80%	6.40	6.2	25	208.30%	Yes	artificial nest box fo	Estimate
	Condition of habitat Change in habitat condition, but no change in extent	No																				
										Thre	eatened s	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																				

	Summary												
						Cost (\$)							
	Protected matter attributes	Quantum of impact	Net present value of offset	% of impact offset	Direct offset adequate?	Direct offset (\$)	Other compensatory measures (\$)	Total (\$)					
	Birth rate	0				\$0.00		\$0.00					
nary	Mortality rate	0				\$0.00		\$0.00					
Summary	Number of individuals	0				\$0.00		\$0.00					
	Number of features	3	6.25	208.30%	Yes	per artificial nest box for su	N/A	\$0.00					
	Condition of habitat	0				\$0.00		\$0.00					
	Area of habitat	2.755	4.14	150.22%	Yes	\$0.00	N/A	\$0.00					
	Area of community	0				\$0.00		\$0.00					
						\$0.00	\$0.00	\$0.00					



# **Appendix C Coordinates**

### **Offset**

## Area

Site	Easting	Northing
Offset Area	354488.73	6618125.29
	354450.52	6616998.12
	354298.05	6616901.72
	354346.12	6618131.11

Coordinates are in GDA2020 MGA50 Easting/Northing and GDA2020 Decimal Degrees.



# **Appendix D Indicative Species List**

Accepted Name	Conservation code	Common Name	Form	Carnaby's Foraging
Acacia auronitens			Shrub	
Acacia epacantha	Р3		Shrub	
Acacia fagonioides			Shrub	
Acacia lullfitziorum			Shrub	
Acacia plicata	Р3		Shrub	
Acacia pulchella var. reflexa			Shrub	
Acacia saligna		Orange Wattle	Shrub	Low
Acacia saligna subsp. Wheatbelt			Shrub	
Acacia sphacelata subsp. verticillata			Shrub	
Acacia splendens	CR		Shrub	
Acacia stenoptera			Shrub	
Actinotus leucocephalus		Flannel Flower	Herb	
Adenanthos cygnorum subsp. cygnorum		Common Woollybush	Shrub	
Alexgeorgea nitens			Herb	
Alexgeorgea subterranea			Herb	
Allocasuarina humilis		Dwarf Sheoak	Shrub	
Allocasuarina lehmanniana		Dune Sheoak	Shrub	
Allocasuarina microstachya			Shrub	
Andersonia gracilis	VU		Shrub	
Andersonia heterophylla			Shrub	
Andersonia lehmanniana			Shrub	
Angianthus micropodioides	P3		Herb	
Anigozanthos humilis subsp. Badgingarra	P2		Herb	
Anigozanthos humilis subsp. chrysanthus	P4	Golden Catspaw	Herb	
Anigozanthos humilis subsp. humilis		Catspaw	Herb	
Anigozanthos pulcherrimus		Yellow Kangaroo Paw	Herb	
Anigozanthos viridis subsp. terraspectans	VU	Dwarf Green Kangaroo Paw	Herb	
Apectospermum spinescens		Spiny Tea Tree	Shrub	
Arnocrinum gracillimum	Р3		Herb	
Arnocrinum preissii			Herb	
Asteridea asteroides			Herb	
Austrostipa compressa			Herb	
Austrostipa elegantissima			Herb	
Austrostipa hemipogon			Herb	
Austrostipa variabilis			Herb	
Babingtonia delicata	P1		Shrub	
Babingtonia grandiflora		Large-flowered Babingtonia	Shrub	
Babingtonia urbana	Р3	Coastal Plain Babingtonia	Shrub	
Baeckea sp. Dandaragan	P1		Shrub	
Banksia attenuata		Slender Banksia	Tree	High
Banksia bipinnatifida			Shrub	
Banksia candolleana		Propeller Banksia	Shrub	
Banksia carlinoides		Pink Dryandra	Shrub	Medium
Banksia chamaephyton	P4	Fishbone Banksia	Shrub	
Banksia dallanneyi subsp. dallanneyi var. dallar	ineyi		Shrub	Low
Banksia fraseri var. fraseri			Shrub	
Banksia glaucifolia			Shrub	
Banksia hewardiana		Singuine and Baralinia	Shrub	Himb
Banksia menziesii	na	Firewood Banksia	Tree	High
Banksia nana	Р3	Dwarf Dryandra	Shrub	⊔:ah
Banksia prionotes	na	Acorn Banksia	Tree	High
Banksia pteridifolia subsp. vernalis	Р3		Shrub	
Banksia sclerophylla  Banksia shuttleworthiana		Bearded Dryandra	Shrub Shrub	
		•	Shrub Shrub	
Banksia sphaerocarpa var. sphaerocarpa  Banksia tortifolia		Fox Banksia	Shrub	
שנוואזוע נטרנוןטווע			SHIUD	

Banksia vestita		Summer Dryandra	Shrub	
Beaufortia bicolor	Р3	Badgingarra Beaufortia	Shrub	
Beaufortia squarrosa		Sand Beaufortia	Shrub	
Beyeria gardneri	Р3		Shrub	
Blancoa canescens		Winter Bell	Herb	
Bossiaea eriocarpa		Common Brown Pea	Shrub	
Burchardia congesta		Milkmaids	Herb	
Caladenia lorea		Blushing Spider Orchid	Herb	
Caladenia varians		Common Spider Orchid	Herb	
Calandrinia corrigioloides		Strap Purslane	Herb	
Calandrinia sp. Kenwick			Herb	
Calectasia narragara		Star of Bethlehem	Herb	
Callitris pyramidalis		Swamp Cypress	Shrub	Medium
Calothamnus quadrifidus subsp. quadrifidus		One-sided Bottlebrush	Shrub	
Calothamnus sanguineus		Silky-leaved Blood flower	Shrub	
Calothamnus torulosus		Sincy leaved blood nower	Shrub	
Calytrix leschenaultii			Shrub	
Cassytha glabella		Tangled Dodder Laurel	Herb	
Cassytha pomiformis		Dodder Laurel	Herb	
Caustis dioica		bodder Eddrer	Herb	
Centrolepis pilosa			Herb	
Chaetospora curvifolia			Herb	
Chamaescilla corymbosa		Blue Squill	Herb	
Chamelaucium uncinatum		Geraldton Wax, Wembley Wax	Shrub	
Chordifex reseminans	P2	Geraldton wax, wentbley wax	Herb	
	PZ	Blue-spike Milkwort	Herb	
Comesperma calymega Comesperma rhadinocarpum	P3	Slender-fruited Comesperma	Herb	
·	P3	Milkwort		
Comesperma virgatum			Herb	
Conospermum acerosum		Needle-leaved Smokebush	Shrub	
Conospermum crassinervium		Summer Smokebush	Shrub	
Conospermum nervosum	D2		Shrub	
Conospermum scaposum	Р3	Common Constate at	Shrub	
Conospermum stoechadis		Common Smokebush	Shrub	
Conospermum stoechadis subsp. stoechadis	5.4	Common Smokebush	Shrub	
Conostephium magnum	P4	Paral Ela car	Shrub	
Conostephium pendulum		Pearl Flower	Shrub	
Conostephium preissii			Shrub	
Conostylis aculeata		Prickly Conostylis	Herb	
Conostylis aculeata subsp. breviflora		_	Herb	
Conostylis androstemma		Trumpets	Herb	
Conostylis angustifolia			Herb	
Conostylis aurea		Golden Conostylis	Herb	
Conostylis setigera subsp. setigera		Bristly Cottonhead	Herb	
Conostylis teretifolia subsp. teretifolia			Herb	
Conostylis teretiuscula			Herb	
Cristonia biloba subsp. pubescens	P2		Shrub	
Cryptandra myriantha			Shrub	
Cryptandra pungens			Shrub	
Cyanothamnus ramosus subsp. anethifolius			Herb	
Dampiera linearis		Common Dampiera	Herb	
Dampiera spicigera		Spiked Dampiera	Shrub	
Dampiera tephrea	Р3		Shrub	
Darwinia neildiana		Fringed Bell	Shrub	
Darwinia pinifolia			Shrub	
Darwinia sanguinea			Shrub	
Dasypogon obliquifolius			Herb	
Daviesia angulata			Shrub	

Daviesia decurrens subsp. decurrens			Shrub	
Daviesia divaricata subsp. divaricata			Shrub	
Daviesia epiphyllum			Shrub	
Daviesia incrassata subsp. incrassata			Shrub	
Daviesia nudiflora subsp. hirtella			Shrub	
Daviesia pedunculata			Shrub	
Daviesia podophylla			Shrub	
Desmocladus biformis	Р3		Herb	
Desmocladus elongatus	P4		Herb	
Desmocladus nodatus	Р3		Herb	
Diuris tinkeri		Arrowsmith Pansy Orchid	Herb	
Drosera barbigera			Herb	
Drosera closterostigma			Herb	
Drosera drummondii			Herb	
Drosera eneabba			Herb	
Drosera erythrorhiza		Red Ink Sundew	Herb	
Drosera gigantea		Giant Sundew	Herb	
Drosera leioblastus	P1		Herb	
Drosera leucostigma	P1		Herb	
Drosera macropetala	P1		Herb	
Drosera minutiflora			Herb	
Drosera paleacea	P1	Dwarf Sundew	Herb	
Drosera pallida		Pale Rainbow	Herb	
Drosera porrecta		Leafy Sundew	Herb	
Drosera prophylla			Herb	
Drosera spilos			Herb	
Drosera stolonifera		Leafy Sundew	Herb	
Ecdeiocolea monostachya			Herb	
Eremaea asterocarpa			Shrub	
Eremaea asterocarpa subsp. asterocarpa			Shrub	
Eremaea pauciflora			Shrub	
Eremaea pauciflora var. pauciflora			Shrub	
Eremophila glabra subsp. chlorella	EN		Shrub	
Eucalyptus abdita	P2		Shrub	
Eucalyptus absita x loxophleba	P1		Tree	
Eucalyptus camaldulensis		River Gum	Tree	Low
Eucalyptus dolorosa	CR	Mount Misery Mallee	Mallee	
Eucalyptus exilis	P4	Boyagin Mallee	Mallee	
Eucalyptus gomphocephala		Tuart	Tree	High
Eucalyptus macrocarpa subsp. elachantha	P4	Small-leaved Mottlecah	Mallee	
Eucalyptus obtusiflora subsp. dongarraensis		Dongara Mallee	Mallee	
Eucalyptus opimiflora	D.4	Northern Silver Mallee	Mallee	
Eucalyptus pendens	P4	Badgingarra Mallee	Mallee	
Eucalyptus rudis subsp. rudis		Flooded Gum	Tree	Low
Eucalyptus todtiana	D.4	Pricklybark	Tree	Medium
Eucalyptus x carnabyi	P4		Tree	
Gastrolobium axillare		Champion Dov Daison	Shrub	
Gastrolobium oxylobioides		Champion Bay Poison  Horned Poison	Shrub	
Gastrolobium polystachyum			Shrub	
Gastrolobium spinosum Glischrocaryon aureum		Prickly Poison Common Popflower	Shrub Herb	
Gnephosis tenuissima		Common Fophower	Herb	
Gompholobium gairdnerianum	Р3		Shrub	
Gompholobium knightianum	F3		Shrub	
Gompholobium polymorphum			Shrub	
Gompholobium tomentosum		Hairy Yellow Pea	Shrub	
Gonocarpus pithyoides		Trainy Tenew Lea	Herb	
Goriocai pas pitiryolaes			TICID	

Goodenia coerulea			Herb	
Goodenia cusackiana			Herb	
Goodenia reinwardtii		Common Verreauxia	Shrub	
Goodenia trinervis			Herb	
Grevillea calliantha	CR		Shrub	
Grevillea erinacea	Р3		Shrub	
Grevillea eriostachya		Flame Grevillea	Shrub	
Grevillea saccata	P4	Pouched Grevillea	Shrub	
Grevillea synapheae subsp. minyulo	P1		Shrub	
Grevillea thyrsoides subsp. thyrsoides	Р3		Shrub	
Guichenotia alba	Р3		Shrub	
Guichenotia ledifolia			Shrub	
Guichenotia micrantha		Small Flowered Guichenotia	Shrub	
Gyrostemon racemiger			Shrub	
Haemodorum laxum		Bloodroot	Herb	
Haemodorum paniculatum		Mardja	Herb	
Haemodorum spicatum		•	Herb	
Haemodorum venosum			Herb	
Hakea anadenia			Shrub	
Hakea auriculata			Shrub	Medium
Hakea conchifolia		Shell-leaved Hakea	Shrub	Medium
Hakea costata		Ribbed Hakea	Shrub	Medium
Hakea flabellifolia		Fan-leaved Hakea	Shrub	Medium
Hakea incrassata		Marble Hakea	Shrub	Medium
Hakea lissocarpha		Honey Bush	Shrub	Medium
Hakea megalosperma	VU	Lesueur Hakea	Shrub	Medium
Hakea neospathulata			Shrub	
Hakea obliqua subsp. parviflora			Shrub	
Hakea prostrata		Harsh Hakea	Shrub	High
Hakea ruscifolia		Candle Hakea	Shrub	Medium
Hakea stenocarpa		Narrow-fruited Hakea	Shrub	Medium
Hakea trifurcata		Two-leaf Hakea	Shrub	High
Hakea undulata		Wavy-leaved Hakea	Shrub	High
Hakea varia		Variable-leaved Hakea	Shrub	Medium
Hemiandra linearis		Speckled Snakebush	Shrub	
Hemiandra pungens		Snakebush	Shrub	
Hemigenia rigida	P1		Shrub	
Hemiphora bartlingii		Woolly Dragon	Shrub	
Hibbertia acerosa		Needle Leaved Guinea Flower	Shrub	
Hibbertia aurea			Shrub	
Hibbertia crassifolia			Shrub	
Hibbertia huegelii			Shrub	
Hibbertia hypericoides subsp. hypericoides		Yellow Buttercups	Shrub	
Hibbertia polystachya			Shrub	
Hibbertia pubens			Shrub	
Hibbertia sericosepala			Shrub	
Hibbertia stellaris		Orange Stars	Shrub	
Hibbertia striata			Shrub	
Hibbertia subvaginata			Shrub	
Hopkinsia anoectocolea	Р3		Herb	
Hovea stricta			Shrub	
Hyalosperma cotula			Herb	
Hypocalymma angustifolium	5.0	White Myrtle	Shrub	
Hypocalymma serrulatum	P2	Early Myrtle	Shrub	
Hypocalymma tetrapterum	P3	Papillose Myrtle	Shrub	
Hypocalymma x proliferum	P1		Shrub	
Hypolaena pubescens			Herb	

Hypolaena robusta	P4		Herb	
Isopogon asper			Shrub	
Isopogon autumnalis	Р3	Autumn Isopogon	Shrub	
Isopogon divergens		Spreading Coneflower	Shrub	
Isopogon linearis			Shrub	
Isopogon panduratus subsp. palustris	P3		Shrub	
Isopogon teretifolius		Nodding Coneflower	Shrub	
Jacksonia anthoclada	Р3		Shrub	
Jacksonia carduacea	P3		Shrub	
Jacksonia floribunda		Holly Pea	Shrub	
Jacksonia furcellata		Grey Stinkwood	Shrub	Medium
Jacksonia hakeoides			Shrub	
Jacksonia nutans			Shrub	
Jacksonia restioides			Shrub	
Jacksonia sternbergiana		Stinkwood	Shrub	
Johnsonia pubescens subsp. Pubescens			Herb	
Kunzea micrantha			Shrub	
Kunzea micrantha subsp. petiolata			Shrub	
Labichea punctata		Lance-leaved Cassia	Shrub	
Lachnostachys eriobotrya		Lambswool	Shrub	
Lachnostachys verbascifolia		Lambs' Tails	Shrub	
Lagenophora huegelii			Herb	
Lambertia multiflora var. multiflora			Herb	
Lasiopetalum lineare			Herb	
Laxmannia sessiliflora subsp. Sessiliflora			Herb	
Laxmannia sessiliflora subsp. australis			Herb	
Lechenaultia biloba		Blue Lechenaultia	Shrub	
Lechenaultia expansa			Shrub	
Lechenaultia floribunda		Free-flowering Leschenaultia	Shrub	
Lechenaultia linarioides		Yellow Leschenaultia	Shrub	
Lepidobolus preissianus			Herb	
Lepidobolus quadratus	Р3		Herb	
Lepidosperma apricola			Herb	
Lepidosperma scabrum		Scabrid Sword-sedge	Herb	
Leptomeria cunninghamii			Shrub	
Leptospermum erubescens		Roadside Teatree	Shrub	
Leucopogon foliosus	Р3		Shrub	
Leucopogon oldfieldii			Shrub	
Leucopogon sp. Coujinup			Shrub	
Leucopogon sp. Newdegate			Shrub	
Leucopogon stenophyllus			Shrub	
Levenhookia murfetii		Kwongan Stylewort	Herb	
Levenhookia pusilla		Midget Stylewort	Herb	
Levenhookia stipitata		Common Stylewort	Herb	
Linum marginale		Wild Flax	Herb	
Lomandra preissii		Preiss' Mat Rush	Herb	
Lomandra sericea		Silky Mat Rus	Herb	
Lyginia barbata			Herb	
Lyginia excelsa	P2		Herb	
Lysinema pentapetalum			Shrub	
Macarthuria apetala			Shrub	
Macropidia fuliginosa		Black Kangaroo Paw	Herb	
Macrozamia fraseri		Sandlplain Zamia	Cycad	
Marianthus erubescens			Shrub	
Melaleuca carrii			Shrub	
Melaleuca ciliosa			Shrub	
Melaleuca clavifolia			Shrub	
-				

Malalaura cariata			ما د ده ما ۲	
Melaleuca seriata Melaleuca teretifolia		Banbar	Shrub Shrub	
Melaleuca viminea subsp. viminea		Dalibai	Shrub	
Mesomelaena pseudostygia		Comanhoro Codgo	Shrub	Medium
		Semaphore Sedge	Shrub	Medium
Mesomelaena tetragona  Microtis media		Semaphore Sedge		Medium
		Tall Mignonette Orchid	Herb	
Microtis media subsp. media		Common Mignonette Orchid	Herb	
Microtis orbicularis		Dark Mignonette Orchid	Herb	
Mirbelia spinosa		Diamond of the Decemb	Shrub	
Monotaxis grandiflora		Diamond of the Desert	Shrub	
Morelotia octandra		Fautail Naulas Crass	Herb	
Neurachne alopecuroidea		Foxtail Mulga Grass	Herb	
Nuytsia floribunda		Christmas Tree	Tree	
Opercularia vaginata		Dog Weed	Herb	
Orianthera campanulata		Bell-flowered Logania	Herb	
Orianthera spermacocea		6 11: 5 10 1:1	Herb	
Paracaleana dixonii	VU	Sandplain Duck Orchid	Herb	
Patersonia juncea		Rush Leaved Patersonia	Herb	
Patersonia occidentalis		Purple Flag	Herb	
Pericalymma ellipticum var. ellipticum			Shrub	
Persoonia filiformis	P3		Shrub	
Persoonia rudis	Р3		Shrub	
Petrophile axillaris			Shrub	
Petrophile brevifolia			Shrub	
Petrophile chrysantha			Shrub	
Petrophile linearis		Pixie Mops	Shrub	
Petrophile macrostachya			Shrub	
Petrophile recurva			Shrub	
Petrophile shuttleworthiana			Shrub	
Petrophile striata			Shrub	
Philotheca spicata		Pepper and Salt	Shrub	
Phlebocarya ciliata			Herb	
Phlebocarya pilosissima subsp. pilosissima	Р3		Herb	
Pileanthus filifolius		Summer Coppercups	Shrub	
Pimelea angustifolia		Narrow-leaved Pimelea	Shrub	
Pimelea imbricata var. piligera			Shrub	
Pimelea sulphurea		Yellow Banjine	Shrub	
Podotheca angustifolia		Sticky Longheads	Herb	
Podotheca gnaphalioides		Golden Long-heads	Herb	
Pterochaeta paniculata		Woolly Waitzia	Herb	
Pterostylis dilatata		Robust Snail Orchid	Herb	
Pterostylis platypetala		Broad-petaled Snail Orchid	Herb	
Ptilotus polystachyus		Prince of Wales Weather	Herb	
Regelia ciliata			Shrub	
Rhodanthe manglesii			Herb	
Ricinocarpos undulatus		Wedding Bush	Shrub	
Rytidosperma caespitosum		Common Wallaby Grass	Herb	
Rytidosperma setaceum		Wallaby Grass	Herb	
Scaevola canescens		Grey Scaevola	Shrub	
Scaevola glandulifera		Viscid Hand-flower	Shrub	
Scaevola lanceolata		Long-leaved Scaevola	Herb	
Scaevola phlebopetala		Velvet Fanflower	Herb	
Scaevola repens			Herb	
Scaevola repens var. repens			Shrub	
Schoenus brevisetis			Herb	
Schoenus caespititius			Herb	
Schoenus clandestinus			Herb	

Schoenus griffinianus	P4		Herb
Schoenus pennisetis	P3		Herb
Schoenus unispiculatus	F 3		Herb
Scholtzia involucrata		Spiked Scholtzia	Shrub
Senna artemisioides		Spiked Scholtzia	Shrub
Siloxerus filifolius			Herb
Sphaerolobium drummondii			Shrub
Sphaerolobium pulchellum			Shrub
Spyridium oligocephalum	Р3		Shrub
Stackhousia pubescens	гэ	Downy Stackhousia	Herb
Stenanthemum humile		Downly Stackhousia	Herb
Stenanthemum reissekii			Shrub
Stenanthemum sublineare	P2		Shrub
Stenanthemum tridentatum	F Z		Shrub
Stenopetalum gracile			Herb
Stirlingia latifolia		Blueboy	Shrub
Stylidium adpressum		Trigger-on-stilts	Herb
Stylidium aeonioides	P4	rrigger-on-stilts	Herb
Stylidium bicolor	P4		Herb
Stylidium brunonianum		Pink Fountain Triggerplant	Herb
			Herb
Stylidium bulbiferum Stylidium crossosophalum		Circus Triggerplant	
Stylidium crossocephalum		Posy Triggerplant	Herb
Stylidium cygnorum	P2		Herb
Stylidium diplotrichum	PZ	Dankay Triggaralant	Herb
Stylidium diuroides		Donkey Triggerplant	Herb
Stylidium flagellum	D2		Herb
Stylidium hymenocraspedum	Р3	Fountain Triggornlant	Herb
Stylidium maitlandianum		Fountain Triggerplant	Herb
Stylidium neurophyllum Stylidium piliforum		Coastal Triggerplant	Herb
Stylidium piliferum		Common Butterfly Triggerplant	Herb
Stylidium purpureum		Purple Fountain Triggerplant	Herb
Stylidium pycnostachyum		Downy Triggerplant	Herb
Stylidium repens		Matted Triggerplant	Herb
Stylidium rigidulum		Flagon Triggerplant	Herb
Stylidium stenosepalum	D.4	Fan laguad Triggaralant	Herb
Stylidium striatum	P4	Fan-leaved Triggerplant	Herb
Stylidium tinkeri	P2		Herb
Styphelia crassiflora			Shrub
Styphelia kingiana			Shrub
Styphelia microdonta		Dod Correspondents	Shrub
Styphelia stomarrhena		Red Swamp Cranberry	Shrub Shrub
Styphelia tortifolia			Shrub
Styphelia xerophylla	no		
Synaphea endothrix	Р3		Shrub
Synaphea spinulosa subsp. spinulosa	D2		Shrub
Tetratheca angulata	Р3		Shrub
Tetratheca confertifolia	D4	Classatra's Nacellas	Shrub
Thelymitra apiculata	P4	Cleopatra's Needles	Herb
Thelymitra pulcherrima	P2	Northern Queen of Sheba	Herb
Thelymitra stellata	EN	Star Orchid	Herb
Thomasia cognata		Large Flowered Thereselve	Shrub
Thomasia grandiflora		Large Flowered Thomasia	Shrub
Thryptomene hyporhytis			Shrub
Thryptomene mucronulata		Dropobing Frings Lib.	Shrub
Thysanotus dichotomus	D/I	Branching Fringe Lily	Herb
Thysanotus glaucus	P4	Many flowered Frieze Lily	Herb
Thysanotus multiflorus		Many-flowered Fringe Lily	Herb

Thysanotus patersonii		Paterson's Fringed Lily	Herb	
Thysanotus triandrus		Three-stamened Fringe Lily	Herb	
Trachymene pilosa		Native Parsnip	Herb	
Tricoryne elatior		Yellow Autumn Lily	Herb	
Tricoryne humilis			Herb	
Tricoryne sp. Eneabba			Herb	
Tripterococcus brunonis		Winged Stackhousia	Herb	
Trymalium angustifolium			Shrub	
Trymalium ledifolium			Shrub	
Verticordia amphigia	Р3		Shrub	
Verticordia grandis		Scarlet Featherflower	Shrub	
Verticordia insignis subsp. eomagis	Р3		Shrub	
Verticordia lindleyi subsp. lindleyi	P4		Shrub	
Verticordia nobilis			Shrub	
Verticordia ovalifolia			Shrub	
Verticordia patens			Shrub	
Verticordia pennigera			Shrub	
Verticordia rutilastra	Р3		Shrub	
Xanthorrhoea drummondii			Shrub	
Xanthorrhoea preissii		Grass Tree	Shrub	Medium
Xanthosia huegelii			Herb	

# Tilt Renewables Australia Level 24, 600 Bourke

Pty Ltd

3000

Street, Melbourne, VIC,

Phone: 1300 660 623 tiltrenewables.com