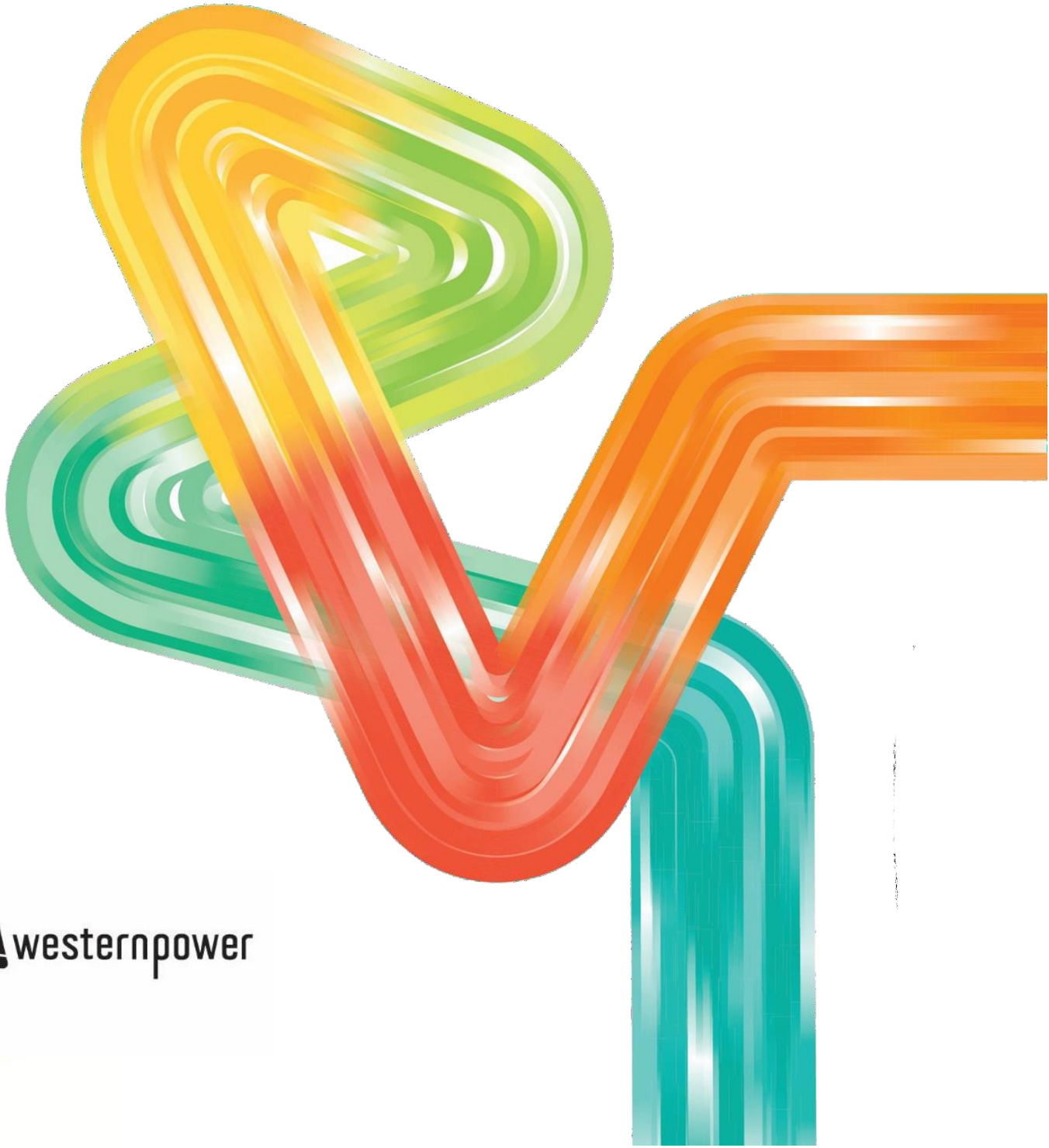
Henley Brook Tee-off Project Offset Proposal

Commercial-in-confidence

11 May 2026



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Contents

Executive Summary

Table 1 Offset Proposal Summary

Item	Details
Title of Proposal	Clean Energy Link North – Henley Brook Tee-off Project Offset Proposal
Proponent name	Western Power
Purpose of this offset proposal	To support the application for a clearing permit under Section 51E of the *Environmental Protection Act 1986*
Permit (under application)	CPS 11274/1
Environmental objective	To offset 100% of the Project's significant residual impact. The Project will have a significant impact on foraging habitat for the three threatened Black Cockatoos, listed below: • Baudin's Black Cockatoo (*Zanda baudinii*) (listed as Endangered under the EPBC Act and the Biodiversity Conservation Act 2016 [BC Act]). • Carnaby's Black Cockatoo (*Zanda latirostris*) (listed as Endangered under the EPBC Act and the BC Act). • Forest Red-tailed Black Cockatoo (FRTBC) (*Calyptorhynchus banksii naso*) (listed as Vulnerable under the EPBC Act and the BC Act).
Proposed offset location	Western Power has secured an offsite site at Lot 102 Kargotich Road, Oldbury in the Shire of Serpentine-Jarrahdale. A total of 5.96 ha of this property will be revegetated.
Current scheme zoning	The offset site is currently zoned 'Rural' under the Shire of Serpentine-Jarrahdale LPS No.3
Stakeholders	DWER regarding regulatory requirements Aboriginal Regional Corporation regarding management collaboration opportunities.
Plans and policies	State Offset Policy
Timeline	The property is in Western Power ownership. On site rehabilitation actions will occur for a minimum of 10 years and will only cease when monitoring demonstrates the completion criteria are achieved.
Governance arrangement	Western Power will retain ownership of the property. The revegetation offset area will be protected by a biodiversity conservation covenant / agreement under either the EP Act, the BC Act or equivalent to ensure security of tenure and protection into perpetuity. This will be implemented within 12 months of approval. Western Power is exploring opportunities to collaborate with local Aboriginal Regional Corporations to support rehabilitation activities and ongoing land management.
Financial budget	Project budget has been allocated for a minimum of 10 years, with internal processes and approvals available to seek additional funds should rehabilitation completion criteria not be met or remedial actions required to be undertaken.
Proposed Commencement	The offset site is already acquired. A site-specific Revegetation Management Plan (RMP) will be provided within 12 months of the clearing permit commencement date.

Item	Details
Offset Management Plan (OMP)	This Offset Proposal outlines and commits Western Power to meeting key criteria; this provides transparency, with confidence in delivery success being supported by a RMP for the site. Western Power commits to providing the RMP to DWER within 12 months of clearing permit approval. The RMP will align with this Offset Proposal and detail the specific rehabilitation activities to be undertaken. The RMP will include detailed and measurable completion criteria to guide and measure successful site restoration to achieve the objectives of this Offset Proposal. The RMP will include reporting and monitoring requirements with measurable triggers for review and remedial actions where criteria are not met. Western Power has embedded key objectives and success criteria into the Offset Proposal in order to enable adaptive management and encourage review, improvement and innovation in the delivery of the RMP. Objective based target setting ensures that efficiencies and lessons learnt can be applied immediately as the rehabilitation activities progress.

1. Introduction

1.1 Background

The Clean Energy Link North (CEL North) program is a significant investment in the North Region transmission network to enable future connections of large-scale renewable energy generation and load in the northern region of the South West Interconnected System (SWIS), in support of the Western Australian State Government's decarbonisation strategy.

As part of the CEL North program, Western Power (the Proponent) proposes to construct a new single circuit 132 kilovolt (kV) powerline between the existing Northern Terminal to Northam transmission line (NT-NOR 81) and Henley Brook Substation, in the suburb of Henley Brook, covering a distance of approximately 3.5 kilometres (km) (the Project) (Figure 1).

On 23 September 2025, Western Power applied for a clearing permit under Part V of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (DWER) has assessed the proposed clearing for the Project and has identified the potential for a significant impact on foraging habitat for the three WA Threatened Black Cockatoo species.

1.2 Project Information

The Project involves the installation of a new 132 kV transmission line between the NT-NOR 81 line and Henley Brook Substation. The Project comprises the following activities:

- Installation of wooden and steel transmission poles, overhead conductors, grounding wires and communication wires
- Construction of a 4 metre (m) wide permanent maintenance access track, where the line is not running in public road reserve
- Establishment of a vegetation clearance zone up to 16 m wide (8 m either side of the line route), with maximum vegetation height in this zone being 3 m.
- Temporary construction activities including construction access tracks, brake and winch sites and clearing for turnaround areas, laydown/storage areas, laying of conductors and other construction activities.

The Project requires the clearing of up to 2.56 hectares (ha) of native vegetation within a Project Area of 26 ha.

Throughout the development of the Project, Western Power has sought to avoid or minimise clearing in accordance with the mitigation hierarchy. The selected alignment follows an existing infrastructure corridor (including roads, water and transport infrastructure), thereby utilising previously cleared or highly degraded areas and minimising additional clearing. A further refinement was made to the line route by relocating the entry into Henley Brook Substation from the east to the west, allowing greater use of existing cleared areas and avoiding black cockatoo foraging habitat. Further refinement of the clearing area will occur prior to construction to identify and retain potential habitat trees that can be avoided.

1.3 Objectives

DWER's assessment of the clearing permit has identified a significant impact on the following species:

- Carnaby's Black Cockatoo (*Zanda latirostris*) (listed as Endangered under the EPBC Act and the *Biodiversity Conservation Act 2016* [BC Act]).
- Forest Red-tailed Black Cockatoo (FRTBC) (*Calyptorhynchus banksii naso*) (listed as Vulnerable under the EPBC Act and the BC Act).
- Baudin's Black Cockatoo (*Zanda baudinii*) (listed as Endangered under the EPBC Act and the BC Act).

The objective of this Offset Proposal is to demonstrate that the environmental values of the proposed offset site will counterbalance at least 100% of the Project's significant residual impact.

This Offset Proposal follows the 2014 Clearing of Native Vegetation Offsets procedure under the EP Act, as outlined by the Department of Environment Regulation (DER) (now DWER).

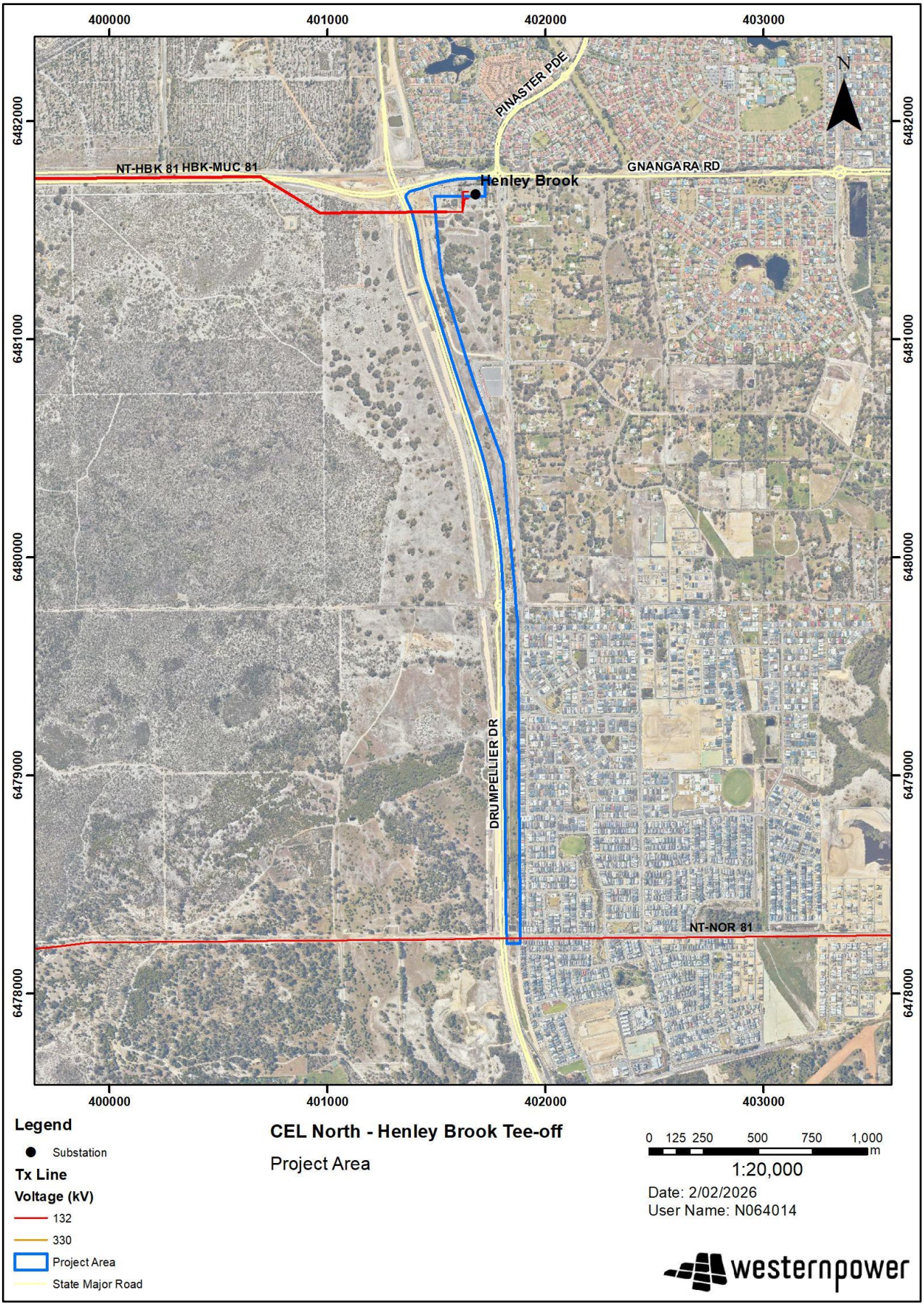

Figure 1 Project Area

2. Offset Requirement

2.1 Project Environmental Studies

Western Power has utilised several biological surveys and environmental studies to determine the environmental values of the Project Area, which are detailed in Table 2 below.

Table 2 Environmental Surveys and Studies

Survey	Timing	Survey details
Clean Energy Link Swan Coastal Plain Flora, Vegetation and Fauna Assessment (AECOM, 2024)	October-November 2023	Detailed vegetation and flora, basic fauna and black cockatoo habitat assessment.
Detailed flora and vegetation assessment – METRONET Morley-Ellenbrook Line (RPS, 2020).	Multi-season 2017-2019	Detailed flora and vegetation assessment, targeted flora survey
Ellenbrook Bus Rapid Transport Biological Assessment (AECOM, 2016)	October, 2015	Level 1 flora and vegetation assessment, level 1 fauna assessment
Banksia Woodland Community Assessment – Patch 5 (Woodman, 2020).	July, 2020	Banksia Woodlands TEC assessment

2.2 Environmental Values

A total 9.01 ha of native vegetation has been mapped across the 26 ha Project Area, with the remaining 16.98 ha devoid of vegetation. Vegetation condition ranges from Degraded to Completely Degraded.

Three fauna habitats have been identified and mapped across the Project Area, generally described as Banksia Woodland (0.54 ha), Eucalyptus Woodland (6.93 ha) and Trees Over Cleared (1.54 ha).

The project is within the known range of the three WA threatened black cockatoo species, Carnaby's Cockatoo, Baudin's Cockatoo and Forest Red-tailed Black Cockatoo. The AECOM (2024) survey recorded the presence of Carnaby's Cockatoo and Forest Red-tailed Black Cockatoo (foraging evidence, seen and heard) and determined a high likelihood of occurrence for Baudin's Cockatoo. The three fauna habitats recorded in the Project Area represent suitable foraging habitat for all three species.

Foraging habitat was evaluated using 'Scoring system for the assessment of foraging value of vegetation for Black Cockatoos' developed by Bamford Consulting Ecologists (BCE) (BCE, 2020). Black Cockatoo foraging habitat quality across the Project Area is presented in Table 3 below.

Table 3 Black Cockatoo Foraging Habitat Across the Project Area

Species	Black Cockatoo Foraging Habitat Quality (BCE, 2020)	
	Foraging Habitat Quality Score	Total Extent (ha) in the Project Envelope
Carnaby's Cockatoo	Moderate (5)	7.48
	Low (2)	1.54
	None (0)	16.98
Forest Red-tailed Black Cockatoo	Moderate to High (7)	6.93
	Moderate (4)	1.54
	Low (2)	0.54
	None (0)	16.98
Baudin's Cockatoo	Moderate (4)	8.48
	Low (2)	0.54
	None (0)	16.98

2.3 Residual Impacts

The purpose of this Offset Proposal is to support a purpose permit application, where clearing will occur within a larger envelope. Accordingly, the calculation of residual impacts and corresponding offset requirements is based on the highest quality score for each species.

The project will result in the following direct impacts:

- Loss of up to 2.56 ha of Moderate (5) quality Carnaby's Cockatoo foraging habitat
- Loss of up to 2.56 ha of Moderate to High (7) quality Forest Red-tailed Black Cockatoo foraging habitat
- Loss of up to 2.56 ha of Moderate (4) quality Baudin's Cockatoo foraging habitat.

The land offset requirements have been estimated using the State and Commonwealth calculators (DCCEEW, Offset Assessment Guide, 2023) (DWER, 2021).

Table 4 Black Cockatoos – Impact Calculator Values

Attribute	Significant residual impact		
	Carnaby's Cockatoo	**FRTBC**	**Baudin's Cockatoo**
Type of environmental value	Threatened species foraging habitat	Threatened species foraging habitat	Threatened species foraging habitat
Conservation significance of environmental value	EPBC Act – Endangered BC Act – Endangered	EPBC Act – Vulnerable BC Act – Vulnerable	EPBC Act – Endangered BC Act – Endangered
Conservation significance score	1.20%	0.20%	1.20%
Description	2.56 ha of high-quality foraging habitat	2.56 ha of high-quality foraging habitat	2.56 ha of high-quality foraging habitat
Quality (scale)*	8/10	8/10	8/10
Significant residual impact**	2.05 ha	2.05 ha	2.05 ha

*Quality scale determined in consultation with DWER
**Results from DWER WA environmental offsets calculator

3. Offset Strategy Rationale

To identify a suitable offset site that effectively counterbalances the significant residual impacts of the Project resulting from native vegetation clearing, Western Power has referred to the following policy and guidelines, and conservation advice. These resources have informed the selection process to ensure alignment with biodiversity protection objectives:

- Policy and guidance:
  - EP Act – WA Environmental Offsets Policy (GoWA, 2011).
  - EP Act – WA Environmental Offsets Guidelines (GoWA, 2014).
  - EPA (Public Advice) – Considering environmental offsets at a regional scale (EPA, 2024).
- WA Conservation advice:
  - WA Wildlife Management Program No. 52 – Carnaby's Cockatoo *Zanda [Calyptorhynchus] latirostris* Recovery Plan (DPaW, 2016).
  - Black Cockatoo (Baudin's Cockatoo *Calyptorhynchus baudinii* and Forest Red-tailed Black Cockatoo *Calyptorhynchus banksii naso*) Recovery Plan (DEC, 2008).

The following Commonwealth approved conservation advice were also used to inform the Offset Proposal:

- EPBC Act Referral guideline for 3 WA threatened black cockatoo species (DAWE, 2022)
- Conservation Advice (*Zanda baudinii*) Baudin's cockatoo (TSSC, 2018).
- Conservation Advice for *Calyptorhynchus banksia naso* (Forest Red-tailed Black Cockatoo) (DCCEEW, 2009).

3.1 Habitat Description

The Proposal will impact habitat for the three threatened Black Cockatoo species:

- Carnaby's Cockatoo (*Zanda latirostris*)
- FRTBC (*Calyptorhynchus banksii naso*)
- Baudin's Cockatoo (*Zanda baudinii*)

The conservation status under the EP Act and EPBC Act, along with a summary of their foraging and breeding habitat, as per existing State and Commonwealth Conservation Advice are outlined in Table 5.

Table 5 Black Cockatoo Breeding and Foraging Habitat

Species	Foraging habitat	Breeding habitat
Baudin's Cockatoo Endangered under the EPBC Act and BC Act	Species forages in the Jarrah Forest, on the South Coast and eastern side of the Swan Coastal Plain. Primarily foraging in Marri trees (*Corymbia calophylla*) but may also forage in Jarrah trees (*Eucalyptus marginata*) and native proteaceous plants such as *Banksia*, *Dryandra*, and *Hakea* species (TSSC, 2018).	Southern areas of the Swan Coastal Plain, in the Jarrah Forest, woodlands or forests and the western margins of the Wheatbelt. Nesting occurs in suitable hollows of mature or dead *Eucalyptus* trees, including Karri (*E. diversicolor*), Marri, Jarrah, Wandoo, Bullich (*E. megacarpa*) and Tuart (DAWE, 2022; TSSC, 2018).
Carnaby's Cockatoo Endangered under the EPBC Act and BC Act	South Coast, Swan Coastal Plain and Wheatbelt regions (DAWE, 2022). Kwongan heathlands/woodlands comprise primarily foraging species, including *Banksia* spp., Hakea spp., *Grevillea* spp., *Callistemon* spp. and Marri trees (DAWE, 2022).	The Jarrah Forest, woodlands and forests in the Wheatbelt and South Coast regions and the Swan Coastal Plain, specifically Lake Clifton, provides occasional breeding activity from July to December. Nesting occurs in hollows of mature or dead Eucalyptus trees of primarily Salmon, Gum, Wandoo, Tuart, Jarrah, Flooded Gum (*E. rudis)*, York Gum, Powderbark (*E. accedens*), Karri and Marri species (DAWE, 2022).
FRTBC Vulnerable under the EPBC Act and BC Act	Swan Coastal Plain, South Coast, and Jarrah Forest regions. Primarily foraging species include Jarrah and Marri woodlands and forests, the edges of Karri (*Eucalyptus diversicolor*) forests, Wandoo (*E. wandoo*) and Blackbutt (*E. patens*) trees (DAWE, 2022).	Swan Coastal Plain, woodland or forest, Perth Metropolitan Area, Jarrah Forest Region, Wheatbelt and the South Coast Region Nesting occurs in suitable hollows of mature or dead *Eucalyptus* trees, Marri, Karri, Wandoo, Bullich, Blackbutt (*E. patens*), Tuart and Jarrah species (DAWE, 2022).

3.2 Offset Strategy

Western Power intends to fully offset the significant residual impacts of the Project through a direct land acquisition offset, incorporating land management and rehabilitation to restore black cockatoo foraging habitat. Western Power considers revegetation the most effective option to counterbalance the significant residual impacts of the Project.

To offset the significant residual impact of the Project, Western Power proposes the following offset strategy:

- Revegetation of an area of 5.96 ha to restore Black Cockatoo foraging habitat from Low (1) quality to Moderate to High (6) quality
- The revegetation site will be located within Lot 102 Kargotich Road, Oldbury (described in Section 4)
- The revegetation site will be preserved through a conservation covenant.

The proposed revegetation will be supported by a comprehensive Revegetation Management Plan that will outline the revegetation methodology, monitoring schedule, remediation actions, and completion criteria (detailed in Section 6).

4. Offset Sites

4.1 Site Description

Western Power has purchased the Kargotich Road offset site, which is a 35.15 ha property located at Lot 102 on Plan 65129, Kargotich Road, Oldbury (Figure 2). The property is located in the Shire of Serpentine-Jarrahdale, approximately 4 km west of Mundijong and 35 km south of Perth CBD. This property is a freehold title currently zoned for rural use. Western Power currently plans to retain ownership of the property, however, opportunities to collaborate with local Indigenous corporations to support rehabilitation activities and ongoing land management are currently being explored.

A desktop assessment of the lot has been completed by Western Power (January 2026), reviewing the environmental values and potential constraints to rehabilitation.

Key environmental values identified within the lot include:

- Approximately 25% of the property is vegetated with scattered paddock trees, comprising a mix of *Eucalyptus, Casuarina* and *Melaleuca* species. Native understory is absent.
- The site is broadly mapped as comprising one vegetation complex;
  - Beermullah Complex: Mixture of low open forest of *Casuarina obesa* (Swamp Sheoak) and open woodland of *Corymbia calophylla* (Marri) - *Eucalyptus wandoo* (Wandoo) - *Eucalyptus marginata* (Jarrah). Minor components include closed scrub of *Melaleuca* species and occurrence of *Actinostrobus pyramidalis* (Swamp Cypress).
- The site lies within the distribution of all three threatened black cockatoo species and contains approximately 8 ha of suitable foraging habitat. An historical record of FRTBC occurs on the property, and the nearest records of Carnaby's Cockatoo and Baudin's Cockatoo are 3.7 km and 1.8 km respectively. The property is approximately 4.5 km from the nearest known roosting site.
- The site intersects three unnamed Multiple Use geomorphic wetlands (UFIs 14903, 14903 and 16021).
- The site intersects one minor, nonperennial watercourse, which feeds into a man-made drain.

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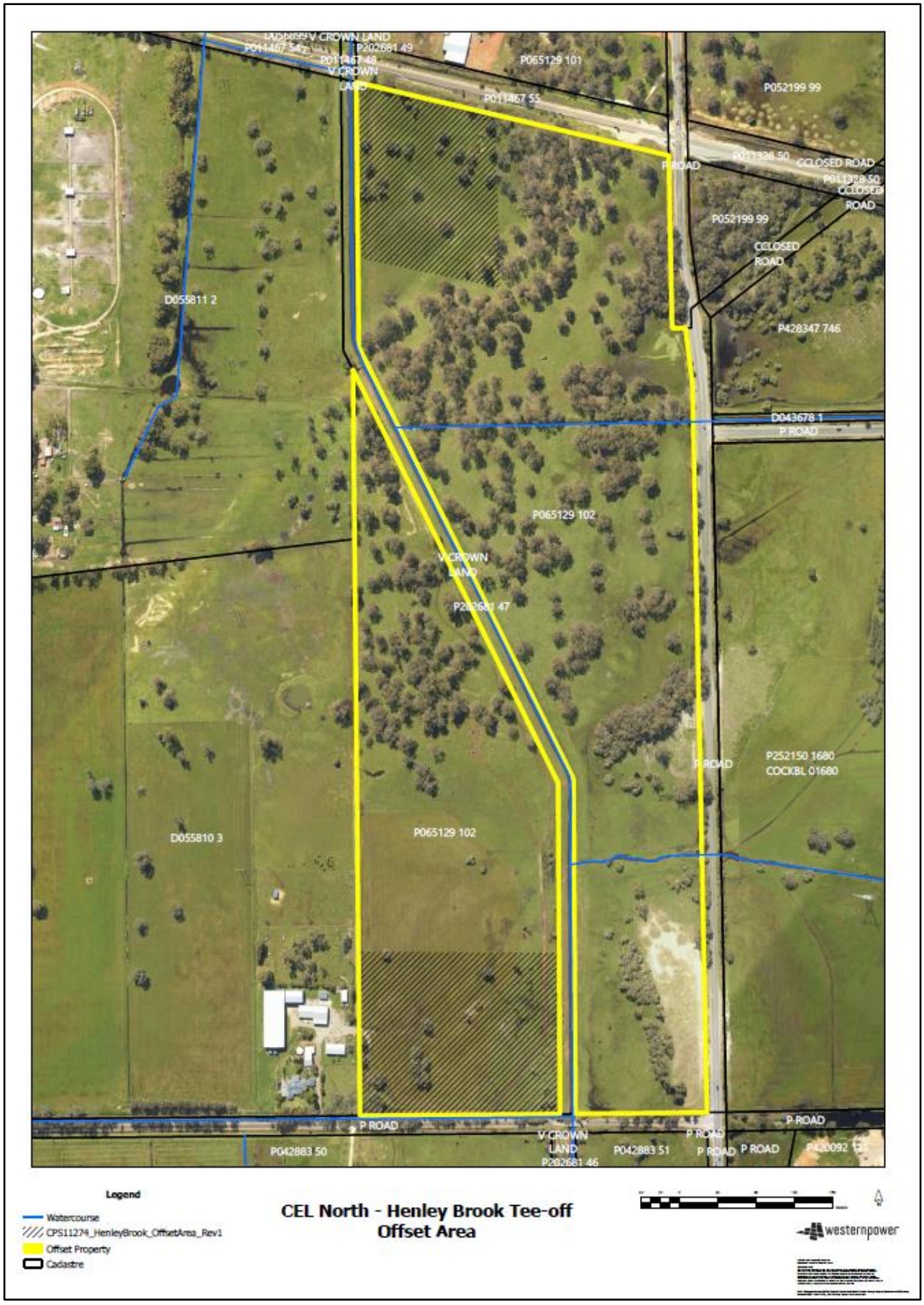

Figure 2 Kargotich Road offset site

4.2 Suitability as an Offset

The entire Kargotich Road offset site is proposed for rehabilitation to provide moderate to high quality (6) black cockatoo foraging habitat, with 5.96 ha attributed to this Project. The site is considered suitable for establishing foraging habitat for all three Black Cockatoo species based on the following:

- The property is located within the modelled distribution of all three black cockatoo species.
- Based on DBCA records, the site is known to be used by FRTBC and records of Carnaby's Cockatoo and Baudin's Cockatoo occur in the local area (<4 km) (Figure 3).
- The property is in close proximity to known roosting sites. The proposed revegetation will also enhance the roosting potential of the property given the presence of existing mature trees and water sources.
- Based on DPIRD vegetation extent data, the local area (10 km) retains approximately 23% of native vegetation (7,839 ha). Revegetation will enhance connectivity between remnant vegetation on the Darling Range and foothills to the east (Karrakup, Mundjong) and remnant vegetation located to west, such as Lowlands Bushland (Bush Forever No. 368), Leda Nature Reserve and Lake Cooloongup.
- Existing native vegetation on the property indicates the site is suitable for planting black cockatoo foraging species.

It is acknowledged that the offset site is located approximately 50 km south of the impact sites and as such may be outside of the local population area that is directly impacted by the clearing. However, the Project's impact site location within the highly developed Perth Metropolitan northern region meant that properties available for purchase, of the required size and that also supported the targeted environmental values for offsets were significantly limited and/or not cost effective.

Noting this and taking into consideration the recommended priorities from the EPA's Public Advice: Considering environmental offsets at a regional scale, offsets have focused on bioregion (Swan Coastal Plain), landscape scale improvements for the species with a focus on creating increased connectivity of the fragments of supporting habitat for Black Cockatoos within their range across the Swan Coastal Plain.

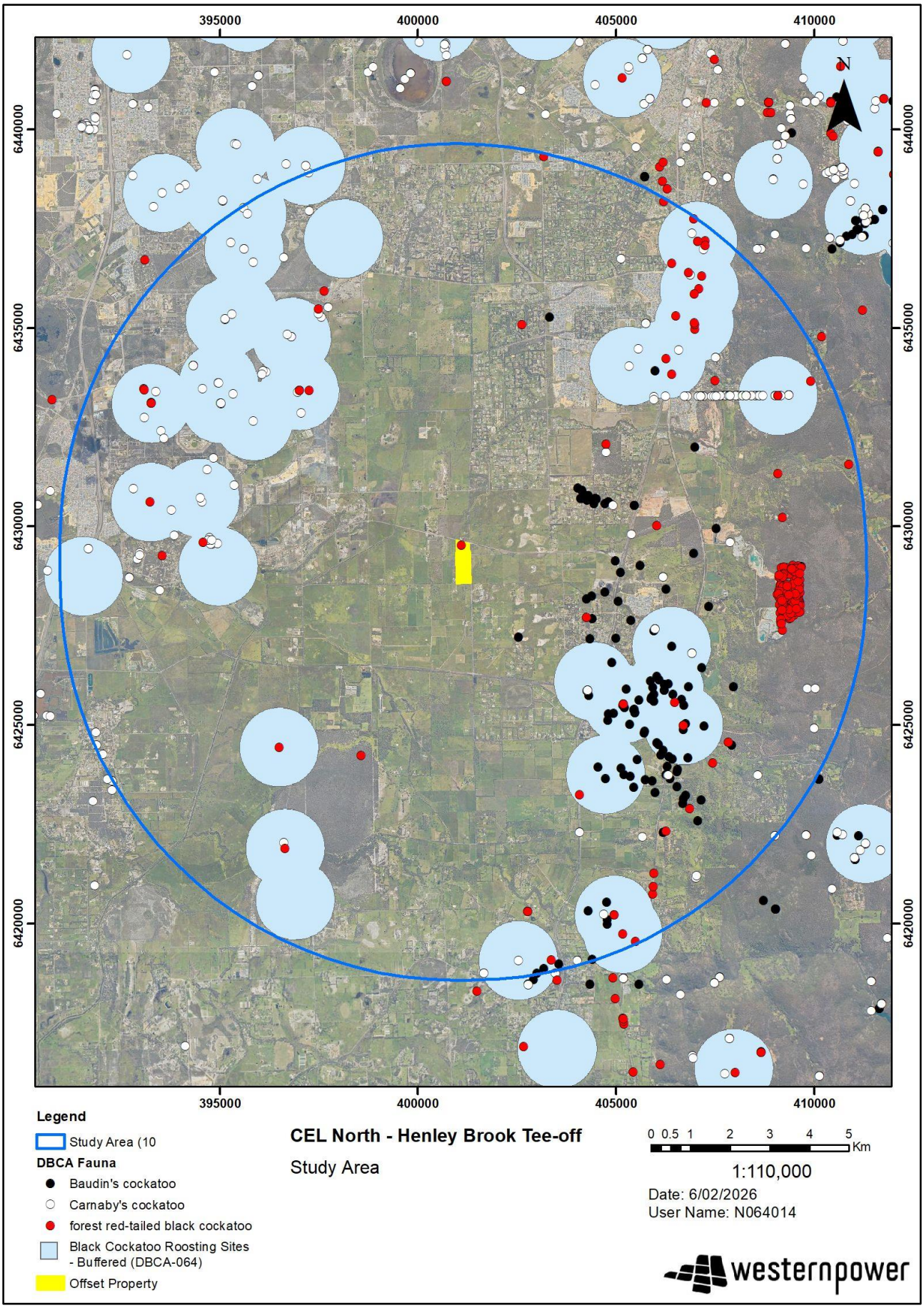

Figure 3 **Black Cockatoo records within 10 km Study Area**

4.3 Offset Calculator

The starting offset value was determined through desktop assessment. Revegetation for this Project will focus on cleared areas of the property with sparse of absent native vegetation, as such, a current quality score of Low (1) has been used.

A future habitat quality rating of Moderate to High (6) has been assigned to the site, informed by the foraging habitat criteria outlined in DAWE (2022) and BCE (2024). Revegetation efforts will prioritise establishing suitable foraging species at appropriate densities to support all three threatened black cockatoo species. A detailed Revegetation Management Plan (RMP), incorporating species selection, planting densities, management actions, and completion criteria will be provided within 12 months of a clearing permit being granted.

A risk of loss of 15% was determined on the basis of the site's current Rural zoning and lack of any formal protection applied to the remnant vegetation on the site. Existing vegetation on the property only consists of mature trees with no evidence or natural regeneration. The property is also currently used for grazing which would inhibit regeneration of the native understory. As outlined in the Serpentine-Jarrahdale Local Planning Scheme (LPS) No. 3, rural zoned land can be developed for agricultural pursuits. Furthermore, as the property is not covered by an Environmentally Sensitive Area, vegetation may also be cleared in a prescribed manner under the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*.

The remaining input values are outlined in Tables 6-8 below. Appendix A includes a copy of the full offset calculator inputs and justification.

The proposed revegetation would provide foraging habitat for all three species. Accordingly, the total offset area of 5.96 ha represents the environmental value with the highest offset requirement (Baudin's and Carnaby's Black Cockatoo).

Table 6 Carnaby's Cockatoo Offset Calculator

Offset calculator inputs (estimated for future offset site)		Area of revegetation required to offset 100% of residual impacts
Moderate (5) quality foraging habitat		
Significant Residual Impact Area (ha)	2.05	**5.96 ha**
Current quality of offset site	1	
Future quality without offset	1	
Future quality with offset	6	
Time until ecological benefit (years)	15	
ROL without offset (%)	15	
ROL with offset (%)	5	
Confidence in offset result (%)	80	
Duration of offset implementation	20	
Time until offset site secured	1	

Table 7 Baudin's Cockatoo Offset Calculator

Offset calculator inputs (estimated for future offset site)		Area of revegetation required to offset 100% of residual impacts
Moderate (5) quality foraging habitat		
Significant Residual Impact Area (ha)	2.05	**5.96 ha**
Current quality of offset site	1	
Future quality without offset	1	
Future quality with offset	6	
Time until ecological benefit (years)	15	
ROL without offset (%)	15	
ROL with offset (%)	5	
Confidence in offset result (%)	80	
Duration of offset implementation	20	
Time until offset site secured	1	

Table 8 FRTBC Offset Calculator

Offset calculator inputs (estimated for future offset site)		Area of revegetation required to offset 100% of residual impacts
Moderate (5) quality foraging habitat		
Significant Residual Impact Area (ha)	2.05	**5.25 ha**
Current quality of offset site	1	
Future quality without offset	1	
Future quality with offset	6	
Time until ecological benefit (years)	15	
ROL without offset (%)	15	
ROL with offset (%)	5	
Confidence in offset result (%)	80	
Duration of offset implementation	20	
Time until offset site secured	1	

5. Application of the Environmental Offset Policy Principles

The WA Environmental Offsets Policy (GoWA, 2011) states that environmental offsets are to be used as a last resort, and details six principles to be applied in the assessment and decision-making process with respect to offsets. The proposed offset strategy is consistent with the principles of the WA Environmental Offsets Guidelines.

The Policy overarching principles which have been considered in preparing the preliminary offsets package for the Proposal are:

- Principle 1: Environmental offsets will only be considered after avoidance and mitigation options have been pursued.
- Principle 2: Environmental offsets are not appropriate for all projects.
- Principle 3: Environmental offsets will be cost-effective, as well as relevant and proportionate to the significance of the environmental value being impacted.
- Principle 4: Environmental offsets will be based on sound environmental information and knowledge.
- Principle 5: Environmental offsets will be applied within a framework of adaptive management.
- Principle 6: Environmental offsets will be focused on longer-term strategic outcomes.

The application of the environmental offset policy principles to the Offset Proposal is provided in Section 5.1.

5.1 Policy Principles

5.1.1 Principle 1: Environmental offsets will only be considered after avoidance and mitigation options have been pursued.

The mitigation hierarchy for environmental factors has been applied in this Project design in accordance with the *Statement of environmental principles, factors, objectives and aims of EIA* (EPA, 2023) to manage the risk of the Project leading to a significant impact on environmental factors. The mitigation measures that have been applied are:

- Avoid:
  - Alignment of the powerline within an existing infrastructure corridor utilising existing cleared areas
  - Realignment of line route entry to Henley Brook Substation from the east to the west, greater use of existing cleared areas and avoiding black cockatoo foraging habitat.
- Minimise:
  - Vegetation clearing will not exceed 2.56 ha. The vegetation is in Degraded to Completely Degraded condition.
  - A Project specific Fauna Management Plan has been developed with outcome and objective based targets aimed at minimising impacts to fauna.
  - The clearing area will be further refined by the Principal Contractor prior to clearing commencing based on the final detailed design and construction methodology. Vegetation that will be retained will be demarcated and protected during construction.

- An internal Construction Environmental Management Plan (CEMP) will be prepared by the Principal Contractor and approved by Western Power prior to ground disturbance activities.

5.1.2 Principle 2: Environmental offsets are not appropriate for all projects.

Environmental offsets are considered an appropriate form of mitigation for the significant residual environmental impacts of this Project.

The Project also supports Western Australia's decarbonisation objectives and the planned retirement of coal-fired power generation by enhancing transmission capacity between Perth and the Mid-West region. This increased capacity will help facilitate the integration of additional wind and solar energy into the grid.

5.1.3 Principle 3: Environmental offsets will be cost-effective, as well as relevant and proportionate to the significance of the environmental value being impacted.

Western Power considers the environmental offset to be a cost-effective solution that is relevant and proportionate to the environmental value being impacted by the Proposal. The proposed offset site will counterbalance at least 100% of the Project's impacts on black cockatoo foraging habitat. The proposed revegetation of black cockatoo foraging habitat will result in a net environmental gain.

The value of direct offsets are assessed based on the WA Offset Policy Calculator Tool, incorporating evidence-based justification for all inputs. The relevance and proportion of the proposed offset site against the residual impacts are summarised in Section **Error! Reference source not found..**

5.1.4 Principle 4: Environmental offsets will be based on sound environmental information and knowledge.

Western Power has commissioned several surveys and assessments to quantify the Project's impacts, and the offset site will be assessed for its flora, vegetation and fauna values to inform the Revegetation Management Plan.

The offset site selection has been based on current guidance material for each significant residual impact. The guidance material and offset strategy are presented in Section **Error! Reference source not found.**.

5.1.5 Principle 5: Environmental offsets will be applied within a framework of adaptive management.

Western Power commits to developing a detailed Revegetation Management Plan that will outline adaptive management strategies to achieve the revegetation objectives and target completion criteria. Routine monitoring will be used to evaluate the effectiveness of the revegetation, and methodologies will be refined or changed to ensure continuous improvement.

5.1.6 Principle 6: Environmental offsets will be focused on longer-term strategic outcomes.

Western Power considers acquisition of the offset property and associated revegetation provides long term strategic outcomes by protecting and managing existing black cockatoo habitat, restoring foraging habitat within close proximity to known roosting sites, and enhancing vegetation connectivity across the landscape.

6. Management framework

6.1 Responsibility

Western Power will be wholly responsible for the delivery of the Offset Proposal and implementation of the RMPs at Kargotich Road. All costs including remedial actions associated with implementation will be Western Power's responsibility. As part of the offset, Western Power is investigating the use of a ranger program (planned to be in collaboration with the Traditional Owners) which will be afforded responsibilities relating to delivery of on ground activities but achieving the completion criteria remains a Western Power responsibility.

6.2 Management Actions

Rehabilitation activities will be detailed in the RMP that will be developed in accordance with the DWER guidance: A Guide to Preparing Revegetation Plans for Clearing Permits (2018), and will include rehabilitation targets, completion criteria, ongoing monitoring and maintenance requirements and remedial actions to be implemented when monitoring indicates that the revegetation effort has not met its established completion criteria. The RMP will be finalised in consultation with DWER and provided within 12 months of clearing permit approval.

The following rehabilitation objectives are proposed to be embedded in the site specific RMP. Rehabilitation of native vegetation with values that:

- Provides similar habitat opportunities for the three threatened species of black cockatoos that are known to occur in the area
- Provides similar habitat opportunities for other general native fauna
- Provides continued and self-sustaining foraging and roosting habitat for the three threatened species of black cockatoos
- Contain known key flora species that provide suitable foraging and roosting habitat, including Proteaceous Shrubs (Hakea and Banksia), Eucalypts, Marris and other understory species to ensure adequate vertical stratification of the revegetation

To achieve these objectives, the RMP will include management measures to mitigate risks to revegetation success, including:

- Strategic fire management
- Measures to control invasive weeds
- Measures to prevent spread of dieback
- Management of other site-specific threats (eg. grazing)

Western Power will provide funding for all management activities within the offset areas. Implementation of these actions is anticipated to be carried out by qualified contractors.

6.3 Monitoring and Reporting

The monitoring proposed will focus on three key goals:

1. Provide evidence of progress toward and eventual attainment of completion criteria to enable demonstration of Offset Proposal success
2. Providing feedback on RMP performance as soon as possible to enable early evaluation of the outcomes of implementing the RMP
3. Provide information from which decisions can be made about the need for remedial actions to ensure the targeted outcomes are achieved

Monitoring and reporting will occur over the 10-year rehabilitation period and be done at a minimum annually for the first 5 years. Monitoring will then move to a risk and outcome-based timeframe and be in accordance with the Revegetation Management Plan developed for the offset site and / or any conditions specified in the clearing permit issued under the EP Act. Notionally this would move from annually to being at regular intervals, such as years 7, 9 and 10.

Internal auditing of the Offset Proposal will occur at least once every three years or as per any conditions specified in the clearing permit conditions. Internal auditing of the RMP implementation will occur biennially or as per any conditions specified in the clearing permit conditions.

All internal audits will be summarised into an audit report with an executive summary, clear audit scope of work and methodology, the key findings and corrective actions and follow-ups. This summary can be provided on request to the relevant regulator and published on our website as per any conditions of approval.

An Offset Proposal Close Out Report will be prepared that demonstrates how all completion criteria have been met, with associated documented evidence. This report will be sent to DWER once all completion criteria have been met.

Western Power will make all reports submitted to the regulator(s) publicly available via the Western Power website within 3 months of report submission.

All incidents of non-conformance will be reported internally as per Western Power's Incident Management Procedure, where the non-conformance is also a condition breach an incident investigation will be conducted, and the relevant regulator will be notified within 4 weeks of the incident investigation being completed. The incident report will include at a minimum the incident overview, incident cause and corrective and preventative actions implemented or to be implemented to prevent future incident recurrence.

6.4 Risk Management

Wester Power is responsible for the management of each risk and implementation of all contingency actions as identified in Table 9. All risks will be internally reviewed annually.

Table 9 Offset Proposal risk assessment and management

Risk description	Environmental value	Risk assessment level	Risk controls / mitigations	Remediation trigger and action
External event causing catastrophic rehabilitation failure (fire, flood weather event etc)	Black Cockatoo foraging habitat	Low	Internal process available to seek additional funds to enable response to catastrophic rehabilitation failure. Western Power maintains regular maintenance of firebreaks in accordance with local government firebreak notices on land owned.	Trigger: External event causing catastrophic rehabilitation failure Remedial Action: Seek additional funds to implement remediation actions
Limited seed availability for key black cockatoo foraging species	Black Cockatoo foraging habitat	Low	Multiyear seed collection program implemented.	Trigger: Revegetation specialist advised seed available impact RMP implementation Remedial Action: Increase scale of seed collection program. Supplementing supply with locally sourced commercial seed Adjust revegetation timeframes
Revegetation failure to meet completion targets for species, densities and other RMP criteria	Black Cockatoo foraging habitat	Low	Engagement of highly respected and experienced professional revegetation specialist company to deliver RMPs and on ground implementation 10-year rehabilitation budget forecast approved. Internal process available to seek additional funds.	Trigger: RMP monitoring identifies progressive completion targets are not met Remedial Action: Undertake remediation actions as per RMP
Offset Proposal budget insufficient to successfully achieve all completion criteria.	Black Cockatoo foraging habitat	Low	10-year rehabilitation budget forecast approved. Internal process available to seek additional funds.	Trigger: Annual finance reconciliation identifies budget is fully committed and criteria have not been met Remedial Actions: Seek internal approval to increase budget

6.5 Completion Criteria

An overview of the completion criteria for the overarching Offset Proposal is provided in Table 10. The Offset Proposal completion criteria are consistent with and linked to the offset calculations proposed future habitat quality ratings.

Table 10 Offset Proposal Completion Criteria

Objective	Offset Activity	Completion Criteria
Tenure and Protection		
To protect revegetation site into perpetuity	Execute biodiversity conservation covenant or agreement under the EP Act, the BC Act or equivalent	Provide documented evidence to DWER within 12 months of clearing permit approval.
Carnaby's Cockatoo		
To counterbalance the significant residual impacts to Carnaby's Cockatoo foraging habitat	Rehabilitate 5.96 ha of negligible quality (1) foraging habitat to moderate-high quality (6) at the Kargotich site.	Successful implementation of the RMP.
		5.96 ha of Carnaby's Cockatoo foraging habitat with an average quality score of at least 6/10 is rehabilitated and self-sustaining.
Baudin's Cockatoo		
To counterbalance the significant residual impacts to Baudin's Cockatoo foraging habitat	Rehabilitate 5.96 ha of negligible quality (1) foraging habitat to moderate-high quality (6) at the Kargotich site.	Successful implementation of the RMP
		5.96 ha of Baudin's Cockatoo foraging habitat with an average quality score of at least 6/10 is rehabilitated and self-sustaining.
FRTBC		
To counterbalance the significant residual impacts to FRTBC foraging and habitat	Rehabilitate 5.25 ha of negligible quality (1) foraging habitat to moderate-high quality (6) at the Kargotich site.	Successful implementation of the RMP.
		5.25 ha of FRTBC foraging habitat with an average quality score of at least 6/10 is rehabilitated and self-sustaining.

The Offset Proposal objectives will also be incorporated into the RMP being prepared for the offset site. The RMP will detail the proposed revegetation methodology for the site including weed management, surface preparation and vegetation establishment methodology. The RMP will discuss the outcomes from the desktop and site assessments and provide mapping of patch connectivity, vegetation type and vegetation condition. The RMP will detail the expected restoration outcomes in line with current industry standards and the techniques utilised to achieve them and align the ecological and habitat improvements with the required environmental offset. In addition to the Offset Proposal's outcome-based completion criteria (refer Table 10), the RMPs will have site specific completion criteria outlined and key criteria selected will include:

- Minimum vegetation community area, species diversity (stems/ha), percentage vegetation cover, percentage weed cover, vegetation condition and vertical stratification, demonstrated through on ground monitoring and surveying.
- Minimum species diversity, reflecting the minimum required number of suitable foraging species.
- Biological surveying and habitat assessment confirming that the site provides functional black cockatoo foraging value, this assessment will be completed periodically over the rehabilitation

period, as rehabilitation activities are completed and vegetation reaches the final habitat score quality target for foraging habitat.

- Self-sustaining criteria include monitoring evidence, after year 5, of annual flowering and seed production, and/or the presence of juvenile plants indicating natural recruitment.
- Presence of mature individuals producing cones, nuts or other foraging resources.

7. Offset Contingencies

Western Power acknowledges the successful implementation of the proposed offset is subject to external variables, including finalisation of property acquisition. To mitigate the risk of non-delivery, the following continency measures are put forward to provide alternative pathways for counterbalancing the significant residual impacts of the Project.

Alternative offset property – Western Power is actively pursuing a number of properties that are suitable for restoring black cockatoo foraging habitat in support of the Clean Energy Link program. If required, Western Power will submit a revised Offset Proposal with updated property details and confirmation of suitability as an offset for this Project. This will align with the offset milestones and timeframe for completion outlined in Table 10.

Financial contribution – Should a suitable offset property for revegetation not be secured within 12 months, Western Power proposes to make a financial contribution of $304,701.60 to the State Offset Fund for the purchase of 25.91 ha of native vegetation with similar or better values. Offset calculator inputs and justification to support a financial contribution is outlined in Appendix B.

8. References

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Appendix A – Offset Calculators for Revegetation Offset

Appendix A.1 – Carnaby's Cockatoo

WA Environmental Offsets Calculator

Step 1: Determining conservation significance

Key:

	Data to be entered
	Drop-down selection
	Automatically-generated scores

(Or, if appropriate, manual data entry permitted)

Area / feature **(Impact site)**

Conservation significance determination for the environmental value impacted		
Conservation significance	**Description**	Carnaby's Cockatoo habitat
	Type of environmental value	Species (flora/fauna)
	Conservation significance of environmental value	Rare/threatened species - endangered
	Conservation significance score	**1.2%**

Please select *area* or *feature* for the calculations	**Area**

WA Environmental Offsets Calculator

Step 2: Calculating significant residual impact

Key:

	Data to be entered
	Drop-down selection
	Automatically-generated scores

Environmental value (step 1)	Carnaby's Cockatoo habitat

Area **(impact site)**

Part A: Significant impact calculation
Area

	Description	Quantum of impact		
Significant impact	Loss of 2.56 ha of significant foraging habitat for Carnaby's black cockatoo	**Significant impact (hectares)**	2.56	
		Quality (scale)	8.00	
		Total quantum of impact	**2.05**	

Part B: Rehabilitation credit calculation
Area **(onsite)**

	Description	Proposed rehabilitation (area in hectares)		Time until ecological benefit (years)		
Rehabilitation Credit	No rehabilitation proposed	**Current quality of rehabilitation site (scale)**		**Confidence in rehabilitation result (%)**		
		Future quality WITHOUT rehabilitation (scale)		**Rehabilitation credit**	**0.00**	
		Future quality WITH rehabilitation (scale)				

Part C: Significant residual impact calculation ***Area***

Significant residual impact	**Total quantum of impact**	**2.05**
	Rehabilitation credit	**0.00**
	Significant residual impact	**2.05**

WA Environmental Offsets Calculator

Step 3: Calculating offsets

Key:

	Data to be entered
	Drop-down selection
	Automatically-generated scores

Environmental value (step 1)	Carnaby's Cockatoo habitat	Significant impact (step 2, part A)	2.56
		Rehabilitation credit (step 2, part B)	0.00
		Significant residual impact (step 2, part C)	2.05

Area **(offset site)**

Offset calculation
Area

Offsets calculation								
	Description	**Proposed offset (area in hectares)**	5.96	**Duration of offset implementation (maximum 20 years)**	20.00	**Offset value**	**2.05**
	Revegetation and conservation of completely degraded areas	**Current quality of offset site (scale)**	1.00	**Time until offset site secured (years)**	1.00		**100.0%**
		Future quality WITHOUT offset (scale)	1.00	**Risk of future loss WITHOUT offset (%)**	15.0%		
		Future quality WITH offset (scale)	6.00	**Risk of future loss WITH offset (%)**	5.0%		
		Time until ecological benefit (years)	15.00				
		Confidence in offset result (%)	80.0%			**OFFSET ADEQUATE?**	**YES**

WA Environmental Offsets Calculator

Rationale for scores used in the offsets calculator

Environmental value to be offset			
Calculation	***Score (Area)***		***Rationale***
Conservation significance			
Description	Carnaby's Cockatoo habitat		The loss of 2.56ha of significant foraging habitat for Carnaby's Cockatoo
Type of environmental value	Species (flora/fauna)		Fauna species
Conservation significance of environmental value	Rare/threatened species - endangered		Carnaby's Cockatoo - endangered
Landscape-level value impacted	yes/no		yes
Significant impact			
Description	Loss of 2.56 ha of significant foraging habitat for Carnaby's black cockatoo		The impact area includes 2.56ha of vegetation that is suitable as foraging habitat for Carnaby's black cockatoo
Significant impact (hectares) / Type of feature	2.56		Extent of Carnaby's Cockatoo foraging habitat within the application area
Quality (scale) / Number	8.00		The proposed clearing area predominantly comprises primary foraging habitat for Carnaby's cockatoo. This foraging habitat also supports roosting for the species, noting that 13 known roosting sites have been recorded within 6 km of the clearing area. There are multiple black cockatoo breeding sites mapped approximately 14 km from the clearing area.
Rehabilitation credit			
Description	No rehabilitation proposed		No onsite rehabilitation proposed
Proposed rehabilitation (area in hectares)	0.00		
Current quality of rehabilitation site / Start number (of type of feature)	0.00		
Future quality WITHOUT rehabilitation (scale) / Future number WITHOUT rehabilitation	0.00		
Future quality WITH rehabilitation (scale) / Future number WITH rehabilitation	0.00		
Time until ecological benefit (years)	0.00		
Confidence in rehabilitation result (%)	0		
Offset			
Description	Revegetation and conservation of completely degraded areas		
Proposed offset (area in hectares)	5.96		The calculated offset area
Current quality of offset site / Start number (of type of feature)	1.00		The current habitat is limited to scattered trees of Eucalyptus, Casuarina and Melaleuca species providing limited habitat quality for the impacted species
Future quality WITHOUT offset (scale) / Future number WITHOUT offset	1.00		Without the offset, the foraging habitat quality is expected to remain unchanged
Future quality WITH offset (scale) / Future number WITH offset	6.00		Revegetation actions at the offset site, guided by a revegetation plan approved by DWER, will restore Carnabys'scockatoo foraging habitat at the offset site.
Time until ecological benefit (years)	15.00		Revegetation activities are planned to commence immediately. The environmental benefits for the impacted species expected to be realised over a 15 year timeframe.
Confidence in offset result (%)	0.8		There is a high level of confidence that on-ground actions guided by a DWER approved revegetation management plan will improve fauna habitat quality at the site.
Duration of offset implementation (maximum 20 years)	20.00		Offset area will be protected in perpetuity. 20 years is the maximum value that can be input.

Time until offset site secured (years)	1.00		Estimated time required until the protection of the offset area in perpetuity through a biodiversity conservation covenant / agreement under either the EP Act, the BC Act or equivalent to ensure security of tenure and protection into perpetuity.
Risk of future loss WITHOUT offset (%)	15.0%		Offset site is situated within a rural area
Risk of future loss WITH offset (%)	5.0%		The level of protection afforded by the offset reduces the risk of vegetation loss at the offset site to 5%
Offset ratio (Conservation area only)	N/A		

Appendix A.2 - FRTBC

WA Environmental Offsets Calculator

Step 1: Determining conservation significance

Key:

	Data to be entered
	Drop-down selection
	Automatically-generated scores

(Or, if appropriate, manual data entry permitted)

Area / feature **(Impact site)**

Conservation significance determination for the environmental value impacted		
Conservation significance	**Description**	Forest red-tailed black cockatoo
	Type of environmental value	Species (flora/fauna)
	Conservation significance of environmental value	Rare/threatened Species - vulnerable
	Conservation significance score	**0.2%**

Please select *area* or *feature* for the calculations	**Area**

WA Environmental Offsets Calculator

Step 2: Calculating significant residual impact

Key:

	Data to be entered
	Drop-down selection
	Automatically-generated scores

Environmental value (step 1)	Forest red-tailed black cockatoo

***Area* (impact site)**

Part A: Significant impact calculation
Area

	Description		
Significant impact	Loss of 2.56 ha of significant foraging habitat for Forest red-tailed black cockatoo	**Significant impact (hectares)**	2.56
		Quality (scale)	8.00
		Total quantum of impact	**2.05**

Part B: Rehabilitation credit calculation
***Area* (onsite)**

Rehabilitation Credit	**Description**	**Proposed rehabilitation (area in hectares)**		**Time until ecological benefit (years)**	
		Current quality of rehabilitation site (scale)		**Confidence in rehabilitation result (%)**	
		Future quality WITHOUT rehabilitation (scale)		**Rehabilitation credit**	**0.00**
		Future quality WITH rehabilitation (scale)			

Part C: Significant residual impact calculation *Area*

Significant residual impact	**Total quantum of impact**	**2.05**
	Rehabilitation credit	**0.00**
	Significant residual impact	**2.05**

WA Environmental Offsets Calculator

Step 3: Calculating offsets

Key:

	Data to be entered
	Drop-down selection
	Automatically-generated scores

Environmental value (step 1)	Forest red-tailed black cockatoo	Significant impact (step 2, part A)	2.56
		Rehabilitation credit (step 2, part B)	0.00
		Significant residual impact (step 2, part C)	2.05

***Area* (offset site)**

Offset calculation *Area*							
Offsets calculation	**Description**	**Proposed offset (area in hectares)**	5.25	**Duration of offset implementation (maximum 20 years)**	20.00	**Offset value**	**2.05**
	Revegetation and conservation of completely degraded areas	**Current quality of offset site (scale)**	1.00	**Time until offset site secured (years)**	1.00		**100.0%**
		Future quality WITHOUT offset (scale)	1.00	**Risk of future loss WITHOUT offset (%)**	15.0%		
		Future quality WITH offset (scale)	6.00	**Risk of future loss WITH offset (%)**	5.0%		
		Time until ecological benefit (years)	15.00				
		Confidence in offset result (%)	80.0%			**OFFSET ADEQUATE?**	**YES**

WA Environmental Offsets Calculator

Rationale for scores used in the offsets calculator

Environmental value to be offset			
Calculation	***Score (Area)***		***Rationale***
Conservation significance			
Description	Forest red-tailed black cockatoo		The loss of 2.56ha of significant foraging habitat for Baudin's Cockatoo
Type of environmental value	Species (flora/fauna)		Fauna species
Conservation significance of environmental value	Rare/threatened Species - vulnerable		Forest Red tail Black Cockatoo - Vulnerable
Landscape-level value impacted	yes/no		Yes
Significant impact			
Description	Loss of 2.56 ha of significant foraging habitat for Forest red-tailed black cockatoo		The impact area includes 2.56ha of vegetation that is suitable as foraging habitat for Forest red-tailed black cockatoo
Significant impact (hectares) / Type of feature	2.56		Extent of Forest red-tailed black cockatoo foraging habitat within the application area
Quality (scale) / Number	8.00		The proposed clearing area predominantly comprises primary foraging habitat for FRTBC. This foraging habitat also supports roosting for the species, noting that 13 known roosting sites have been recorded within 6 km of the clearing area. There are multiple black cockatoo breeding sites mapped approximately 14 km from the clearing area
Rehabilitation credit			
Description	0		No onsite rehabilitation proposed
Proposed rehabilitation (area in hectares)	0.00		
Current quality of rehabilitation site / Start number (of type of feature)	0.00		
Future quality WITHOUT rehabilitation (scale) / Future number WITHOUT rehabilitation	0.00		
Future quality WITH rehabilitation (scale) / Future number WITH rehabilitation	0.00		
Time until ecological benefit (years)	0.00		
Confidence in rehabilitation result (%)	0		
Offset			
Description	Revegetation and conservation of completely degraded areas		
Proposed offset (area in hectares)	5.25		The calculated offset area
Current quality of offset site / Start number (of type of feature)	1.00		The current habitat is limited to scattered trees of Eucalyptus, Casuarina and Melaleuca species providing limited habitat quality for the impacted species
Future quality WITHOUT offset (scale) / Future number WITHOUT offset	1.00		Without the offset, the foraging habitat quality is expected to remain unchanged
Future quality WITH offset (scale) / Future number WITH offset	6.00		Revegetation actions at the offset site, guided by a revegetation plan approved by DWER, will restore FRTBC cockatoo foraging habitat at the offset site.
Time until ecological benefit (years)	15.00		Revegetation activities are planned to commence immediately. The environmental benefits for the impacted species expected to be realised over a 15 year timeframe.
Confidence in offset result (%)	0.8		There is a high level of confidence that on-ground actions guided by a DWER approved revegetation management plan will improve fauna habitat quality at the site.
Duration of offset implementation (maximum 20 years)	20.00		Offset area will be protected in perpetuity. 20 years is the maximum value that can be input.

Time until offset site secured (years)	1.00		Estimated time required until the protection of the offset area in perpetuity through a biodiversity conservation covenant / agreement under either the EP Act, the BC Act or equivalent to ensure security of tenure and protection into perpetuity.
Risk of future loss WITHOUT offset (%)	15.0%		Offset site is situated within a rural area
Risk of future loss WITH offset (%)	5.0%		The level of protection afforded by the offset reduces the risk of vegetation loss at the offset site to 5%
Offset ratio (Conservation area only)	N/A		

Appendix A.3 – Baudin's Black Cockatoo

WA Environmental Offsets Calculator

Step 1: Determining conservation significance

Key:

	Data to be entered
	Drop-down selection
	Automatically-generated scores

(Or, if appropriate, manual data entry permitted)

Area / feature **(Impact site)**

Conservation significance determination for the environmental value impacted		
Conservation significance	**Description**	Baudin's Black Cockatoo
	Type of environmental value	Species (flora/fauna)
	Conservation significance of environmental value	Rare/threatened species - endangered
	Conservation significance score	**1.2%**

Please select *area* or *feature* for the calculations	**Area**

WA Environmental Offsets Calculator

Step 2: Calculating significant residual impact

Key:

	Data to be entered
	Drop-down selection
	Automatically-generated scores

Environmental value (step 1)	Baudin's Black Cockatoo

***Area* (impact site)**

Part A: Significant impact calculation
Area

	Description		
Significant impact	**Description**	**Quantum of impact**	
	Loss of 2.56 ha of significant foraging habitat for Baudin's black cockatoo	**Significant impact (hectares)**	2.56
		Quality (scale)	8.00
		Total quantum of impact	**2.05**

Part B: Rehabilitation credit calculation
***Area* (onsite)**

Rehabilitation Credit	**Description**	**Proposed rehabilitation (area in hectares)**		**Time until ecological benefit (years)**	
	No rehabilitation proposed	**Current quality of rehabilitation site (scale)**		**Confidence in rehabilitation result (%)**	
		Future quality WITHOUT rehabilitation (scale)		**Rehabilitation credit**	**0.00**
		Future quality WITH rehabilitation (scale)			

Part C: Significant residual impact calculation *Area*

Significant residual impact	**Total quantum of impact**	**2.05**
	Rehabilitation credit	**0.00**
	Significant residual impact	**2.05**

WA Environmental Offsets Calculator

Step 3: Calculating offsets

Key:

	Data to be entered
	Drop-down selection
	Automatically-generated scores

Environmental value (step 1)	Baudin's Black Cockatoo	Significant impact (step 2, part A)	2.56
		Rehabilitation credit (step 2, part B)	0.00
		Significant residual impact (step 2, part C)	2.05

***Area* (offset site)**

Offset calculation *Area*							
Offsets calculation	**Description**	**Proposed offset (area in hectares)**	5.96	**Duration of offset implementation (maximum 20 years)**	20.00	**Offset value**	**2.05**
	Revegetation and conservation of completely degraded areas	**Current quality of offset site (scale)**	1.00	**Time until offset site secured (years)**	1.00		**100.0%**
		Future quality WITHOUT offset (scale)	1.00	**Risk of future loss WITHOUT offset (%)**	15.0%		
		Future quality WITH offset (scale)	6.00	**Risk of future loss WITH offset (%)**	5.0%		
		Time until ecological benefit (years)	15.00				
		Confidence in offset result (%)	80.0%			**OFFSET ADEQUATE?**	**YES**

WA Environmental Offsets Calculator

Rationale for scores used in the offsets calculator

Environmental value to be offset			
Calculation	***Score (Area)***		***Rationale***
Conservation significance			
Description	Baudin's Black Cockatoo		The loss of 2.56ha of significant foraging habitat for Baudin's Cockatoo
Type of environmental value	Species (flora/fauna)		Fauna species
Conservation significance of environmental value	Rare/threatened species - endangered		Baudin's cockatoo - endangered
Landscape-level value impacted	yes/no		Yes
Significant impact			
Description	Loss of 2.56 ha of significant foraging habitat for Baudin's black cockatoo		The impact area includes 2.56ha of vegetation that is suitable as foraging habitat for Baudin's cockatoo
Significant impact (hectares) / Type of feature	2.56		Extent of Baudin's Cockatoo foraging habitat within the application area
Quality (scale) / Number	8.00		The proposed clearing area predominantly comprises primary foraging habitat for Baudin's cockatoo (marri). This foraging habitat also supports roosting for the species, noting that 13 known roosting sites have been recorded within 6 km of the clearing area. There are multiple black cockatoo breeding sites mapped approximately 14 km from the clearing area.
Rehabilitation credit			
Description	No rehabilitation proposed		No onsite rehabilitation proposed
Proposed rehabilitation (area in hectares)	0.00		
Current quality of rehabilitation site / Start number (of type of feature)	0.00		
Future quality WITHOUT rehabilitation (scale) / Future number WITHOUT rehabilitation	0.00		
Future quality WITH rehabilitation (scale) / Future number WITH rehabilitation	0.00		
Time until ecological benefit (years)	0.00		
Confidence in rehabilitation result (%)	0		
Offset			
Description	Revegetation and conservation of completely degraded areas		
Proposed offset (area in hectares)	5.96		The calculated offset area
Current quality of offset site / Start number (of type of feature)	1.00		The current habitat is limited to scattered trees of Eucalyptus, Casuarina and Melaleuca species providing limited habitat quality for the impacted species
Future quality WITHOUT offset (scale) / Future number WITHOUT offset	1.00		Without the offset, the foraging habitat quality is expected to remain unchanged
Future quality WITH offset (scale) / Future number WITH offset	6.00		Revegetation actions at the offset site, guided by a revegetation plan approved by DWER, will restore Baudin's cockatoo foraging habitat at the offset site.
Time until ecological benefit (years)	15.00		Revegetation activities are planned to commence immediately. The environmental benefits for the impacted species expected to be realised over a 15 year timeframe.
Confidence in offset result (%)	0.8		There is a high level of confidence that on-ground actions guided by a DWER approved revegetation management plan will improve fauna habitat quality at the site.
Duration of offset implementation (maximum 20 years)	20.00		Offset area will be protected in perpetuity. 20 years is the maximum value that can be input.

Time until offset site secured (years)	1.00		Estimated time required until the protection of the offset area in perpetuity through a biodiversity conservation covenant / agreement under either the EP Act, the BC Act or equivalent to ensure security of tenure and protection into perpetuity.
Risk of future loss WITHOUT offset (%)	15.0%		Offset site is situated within a rural area
Risk of future loss WITH offset (%)	5.0%		The level of protection afforded by the offset reduces the risk of vegetation loss at the offset site to 5%
Offset ratio (Conservation area only)	N/A		

Appendix B – Offset Calculator for Contingency Financial Offset

WA Environmental Offsets Calculator

Step 1: Determining conservation significance

Key:

	Data to be entered
	Drop-down selection
	Automatically-generated scores

(Or, if appropriate, manual data entry permitted)

Area / feature **(Impact site)**

Conservation significance determination for the environmental value impacted		
Conservation significance	**Description**	Baudin's Cockatoo habitat
	Type of environmental value	Species (flora/fauna)
	Conservation significance of environmental value	Rare/threatened species - endangered
	Conservation significance score	**1.2%**

Please select *area* or *feature* for the calculations	**Area**

WA Environmental Offsets Calculator

Step 2: Calculating significant residual impact

Key:

	Data to be entered
	Drop-down selection
	Automatically-generated scores

Environmental value (step 1)	Baudin's Cockatoo habitat

***Area* (impact site)**

Part A: Significant impact calculation
Area

	Description		
Significant impact	2.56 of Baudin's Black Cockatoo habitat	**Significant impact (hectares)**	2.56
		Quality (scale)	8.00
		Total quantum of impact	**2.05**

Part B: Rehabilitation credit calculation
***Area* (onsite)**

Rehabilitation Credit	**Description**	**Proposed rehabilitation (area in hectares)**		**Time until ecological benefit (years)**	
		Current quality of rehabilitation site (scale)		**Confidence in rehabilitation result (%)**	
		Future quality WITHOUT rehabilitation (scale)		**Rehabilitation credit**	**0.00**
		Future quality WITH rehabilitation (scale)			

Part C: Significant residual impact calculation *Area*

Significant residual impact	**Total quantum of impact**	**2.05**
	Rehabilitation credit	**0.00**
	Significant residual impact	**2.05**

WA Environmental Offsets Calculator

Step 3: Calculating offsets

Key:

	Data to be entered
	Drop-down selection
	Automatically-generated scores

Environmental value (step 1)	Baudin's Cockatoo habitat	Significant impact (step 2, part A)	2.56
		Rehabilitation credit (step 2, part B)	0.00
		Significant residual impact (step 2, part C)	2.05

Area **(offset site)**

Offset calculation
Area

Offsets calculation	**Description**	**Proposed offset (area in hectares)**	25.91	**Duration of offset implementation (maximum 20 years)**	20.00	**Offset value**	**2.05**
	Financial contribution to fund the aquisition of remnant native vegetation.	**Current quality of offset site (scale)**	8.00	**Time until offset site secured (years)**	1.00		**100.0%**
		Future quality WITHOUT offset (scale)	8.00	**Risk of future loss WITHOUT offset (%)**	15.0%		
		Future quality WITH offset (scale)	8.00	**Risk of future loss WITH offset (%)**	5.0%		
		Time until ecological benefit (years)	1.00				
		Confidence in offset result (%)	90.0%			**OFFSET ADEQUATE?**	**YES**

WA Environmental Offsets Calculator

Rationale for scores used in the offsets calculator

Environmental value to be offset			
Calculation	***Score (Area)***		***Rationale***
Conservation significance			
Description	Baudin's Cockatoo habitat		Vegetation has been mapped as suitable black cockatoo foraging habitat. Baudin's represents the value with the highest offset requirement.
Type of environmental value	Species (flora/fauna)		Baudin's Black Cockatoo
Conservation significance of environmental value	Rare/threatened species - endangered		Baudin's is listed as Endangered fauna species under the state BC Act and Commonwealth EPBC Act.
Landscape-level value impacted	yes/no		No - the small size of the proposed clearing is not likely to significantly impact on the availability of foraging habitat for Baudin's at the landscape level.
Significant impact			
Description	2.56 of Baudin's Black Cockatoo habitat		
Significant impact (hectares) / Type of feature	2.56		2.56 ha proposed to be cleared.
Quality (scale) / Number	8.00		Significant foraging habitat classification by DWER
Rehabilitation credit			
Description	0		No revegetation proposed.
Proposed rehabilitation (area in hectares)	0.00		
Current quality of rehabilitation site / Start number (of type of feature)	0.00		
Future quality WITHOUT rehabilitation (scale) / Future number WITHOUT rehabilitation	0.00		
Future quality WITH rehabilitation (scale) / Future number WITH rehabilitation	0.00		
Time until ecological benefit (years)	0.00		
Confidence in rehabilitation result (%)	0		
Offset			
Description	Financial contribution to fund the aquisition of		Monetary offset calculation: Within DWER offset location category 4 (Shire of Swan) which is $11,760 for 20 ha to<50 ha, total $304,701.60 for a monetary
Proposed offset (area in hectares)	25.91		100% offset value
Current quality of offset site / Start number (of type of feature)	8.00		Without specific site information, assume a quality of 8 for black cockatoo habitat on the SCP.
Future quality WITHOUT offset (scale) / Future number WITHOUT offset	8.00		In the absence of specific site information that might indicate threatening processes, it is reasonable to assume no change in quality in the absence of the offset.
Future quality WITH offset (scale) / Future number WITH offset	8.00		As monetary contributions do not generally account for management actions that would improve site quality, it is reasonable to assume no change in quality.
Time until ecological benefit (years)	1.00		No change to ecological values is expected, therefore the minimum value is input.
Confidence in offset result (%)	0.9		State Offset Fund administered by DWER specifically for offset actio
Duration of offset implementation (maximum 20 years)	20.00		As the acquired land will be incorporated into the conservation estate, it will be protected in perpetuity. The maximum value is therefore applied.
Time until offset site secured (years)	1.00		Accounts for time to find a property, conducting due diligence and negotiating the acquisition with DBCA.
Risk of future loss WITHOUT offset (%)	15.0%		Land zoned ‘rural’ is typically acquired as offsets. 15% is a conservative risk of loss score that can be applied for this zoning. It is consistent with advice provided by DWER.
Risk of future loss WITH offset (%)	5.0%		As the acquired land will be incorporated into the conservation estate, the lowest risk of loss score is therefore applied.
Offset ratio (Conservation area only)	N/A		