Bussell Hwy Duplication Stage 2 - Hutton to Sabina Section

EPBC 2020/8800 Offset Management Plan

February 2026

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February 2026

Document Control

Report Compilation & Review	Position	Document Revision	Date
Author:	Senior Environment Officer	Rev 0	March 2025
Reviewer:	CRSP Principal Environment Officer	Draft 0	April 2025
Author	Senior Environment Officer	Draft v1	February 2026
Reviewer	CRSP Principal Environment Officer	Final v1	February 2026

COVER PAGE AND DECLARATION OF ACCURACY

- **EPBC number**: 2020/8800
- **Project name**: Bussell Highway Duplication Stage 2 – Hutton to Sabina Section
- **Action management plan title**: Bussell Highway Duplication Stage 2 – Hutton to Sabina Section EPBC 2020/8800 Offset Management Plan
- **Proponent /approval holder and ACN or ABN**: Main Roads Western Australia, ABN 50860676021
- **Proposed / approved action**: To construct a second carriageway on a 12.3 km segment of the Bussell Highway between Hutton Road to the Sabina River, near Busselton, Western Australia
- **Location of the action**: Bussell Highway from Hutton Road to near the Sabina River, within the City of Busselton and Shire of Capel
- **Date of preparation of the action management plan:** February 2026
- **Person accepting responsibility for the action management plan**: Martine Scheltema, Director Environment and Heritage, Main Roads Western Australia

DECLARATION OF ACCURACY

In making this declaration, I:

a) am aware that section 491 of the *Environment Protection and Biodiversity Conservation Act 1999* (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* (EPBC Regulations). The offence is punishable on conviction imprisonment or a fine, or both.

b) am authorised to bind Main Roads Western Australia to this declaration and have no knowledge of that authorisation being revoked at the time of making this declaration.

Signed: Martine Schelt

Full name: Martine Scheltema, Director Environment and Heritage

Organisation: Main Roads Western Australia (ABN 50 860 676 021)

Date 12/02/2026

Contents

GLOSSARY

Term	Definition
BC Act	*Biodiversity Conservation Act 2016* (WA)
Black Cockatoos	Species including Baudin's Cockatoo (*Zanda baudinii*), Carnaby's Cockatoo (*Zanda latirostris*) and Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*)
EMP	Environmental Management Plan
DBCA	Western Australian Department of Biodiversity Conservation and Attractions
Dieback	*Phytophthora cinnamomi*
DWER	Western Australian Department of Water and Environmental Regulation
DCCEEW	Commonwealth Department of Climate Change, Energy, the Environment and Water
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Cth)
Main Roads	Commissioner of Main Roads Western Australia
MNES	Matters of National Environmental Significance
MoU	Memorandum of Understanding
OMP	Offset Management Plan
RHDV	Rabbit Haemorrhagic Disease Virus
SF No. 2	Ludlow State Forest No. 2
SF No. 2 Offset Area	Site 3 within Ludlow State Forest No. 2
Suitably qualified expert	means a person who has professional qualifications and at least three (3) years of work experience monitoring, designing and/or implementing surveys for revegetation/rehabilitation programs of native vegetation, and can give authoritative assessments and advice on the success of such programs and the presence of the protected matters using relevant protocols, standards, methods and/or literature. If the person does not have appropriate professional qualifications, the person must have at least five (5) years of work experience monitoring, designing and/or implementing surveys for revegetation/rehabilitation programs of native vegetation in the Swan Coastal Plain and/or Manjimup areas.
TFNP	Tuart Forest National Park
TFNPMP	Tuart Forest National Park Management Plan
Tuart Woodlands TEC	Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain Threatened Ecological Community
WBR Offset Area	Lot 200 and Lot 201 West Boundary Road, Manjimup Offset
WONS	Weeds of National Significance
WRP	Western Ringtail Possum (*Pseudocheirus occidentalis*)

1 SUMMARY

This Offset Management Plan (the Plan) is submitted in accordance conditions 4, 8 and 9 of the approval issued under section 130(1) and 133(1) of the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)* (EPBC Act) (referral 2020/8800) for the Bussell Hwy Duplication Stage 2 Hutton to Sabina section (the Project) by Main Roads Western Australia.

Table 1-1 presents a summary of this Plan including the residual impacts this Plan is required to offset. Table 1-2 presents a summary of the offsets provided under this Plan.

Table 1-1. Offset Management Plan summary

Item	Details
Title of Project	Bussell Highway Duplication Hutton to Sabina, near Busselton WA
Proponent name	Commissioner for Main Roads Western Australia
EPBC Act referral	2020/8800
Purpose of this Plan	This Plan is submitted to fulfil the requirements of conditions 4, 8 and 9 of the above approval under the EPBC Act.
Environmental objective	To counterbalance the significant residual impacts to: • 24 ha of habitat for Western Ringtail Possum *(Pseudocheirus occidentalis)* (WRP) • 20.8 ha of habitat for Black Cockatoos[1] • 2.0 ha of 'Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain Threatened Ecological Community' (Tuart Woodlands TEC).

Table 1-2. Summary of offset sites provided under this Offset Management Plan

Value	Significant residual impact to be offset	Offset required	Offset provided	
			West Boundary Road Offset Area	SF No. 2 Offset Area[2]
Habitat for WRP	24.0 ha	44.4 ha	37.0 ha	7.4 ha
Habitat for Black Cockatoos	20.8 ha	29.0 ha	29.0 ha	-
Tuart Woodlands TEC	2.0 ha	8.78 ha	-	8.78 ha

[1] Baudin's Cockatoo *(Zanda baudinii),* Carnaby's Cockatoo *(Zanda latirostris)* and Forest Red- tailed Black Cockatoo *(Calyptorhynchus banksii naso).*

[2] The Ludlow State Forest No. 2 (SF No. 2) Offset Area under this Plan forms a portion of a larger revegetation site within SF No. 2 which is referred to as Site 3, so as to differentiate from other nearby revegetation sites.

2 CONTEXT AND SCOPE

2.1 Description of the Project

The Commissioner of Main Roads Western Australia (Main Roads) has constructed the Bussell Highway Duplication Stage 2 Hutton to Sabina Project. The Project included the construction of a second carriageway along a 12.3 km section of the Bussell Highway between Hutton Road and the Sabina River bridge (Figure 1) in the Shire of Capel and City of Busselton, approximately 200 km south of Perth (Plate 1). The Project is part of Main Roads' strategy to upgrade the remaining single carriageway between Capel and Busselton to improve road safety.

2.2 Environmental assessment

2.2.1 Commonwealth assessment

The Project was formally referred to the then Commonwealth Department of Agriculture, Water and the Environment (DAWE), now the the Department of Climate Change, Energy, the Environment and Water (DCCEEW) in October 2020 (EPBC Act referral 2020/8800). The action was assessed as a potential Controlled Action under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) due to impacts on Matters of National Environmental Significance (MNES). EPBC Act approval was granted on 30 June 2021.

2.2.2 State assessment

The Project was approved by the Western Australian Department of Water and Environmental Regulation (DWER) under a clearing permit (CPS 9168/1) granted under section 51E of the *Environmental Protection Act 1986* on 9 July 2021.

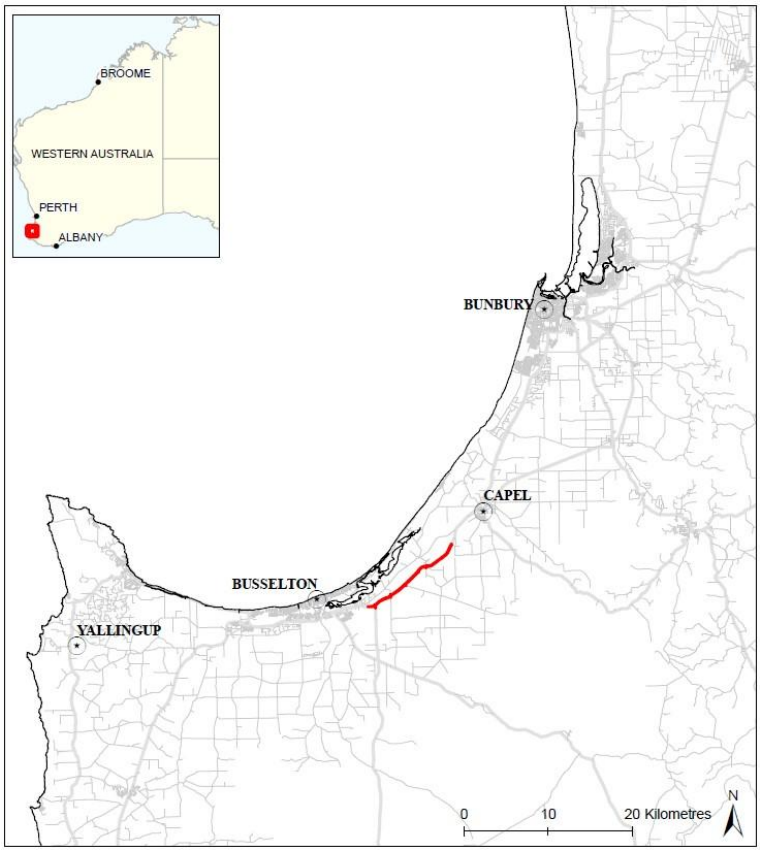
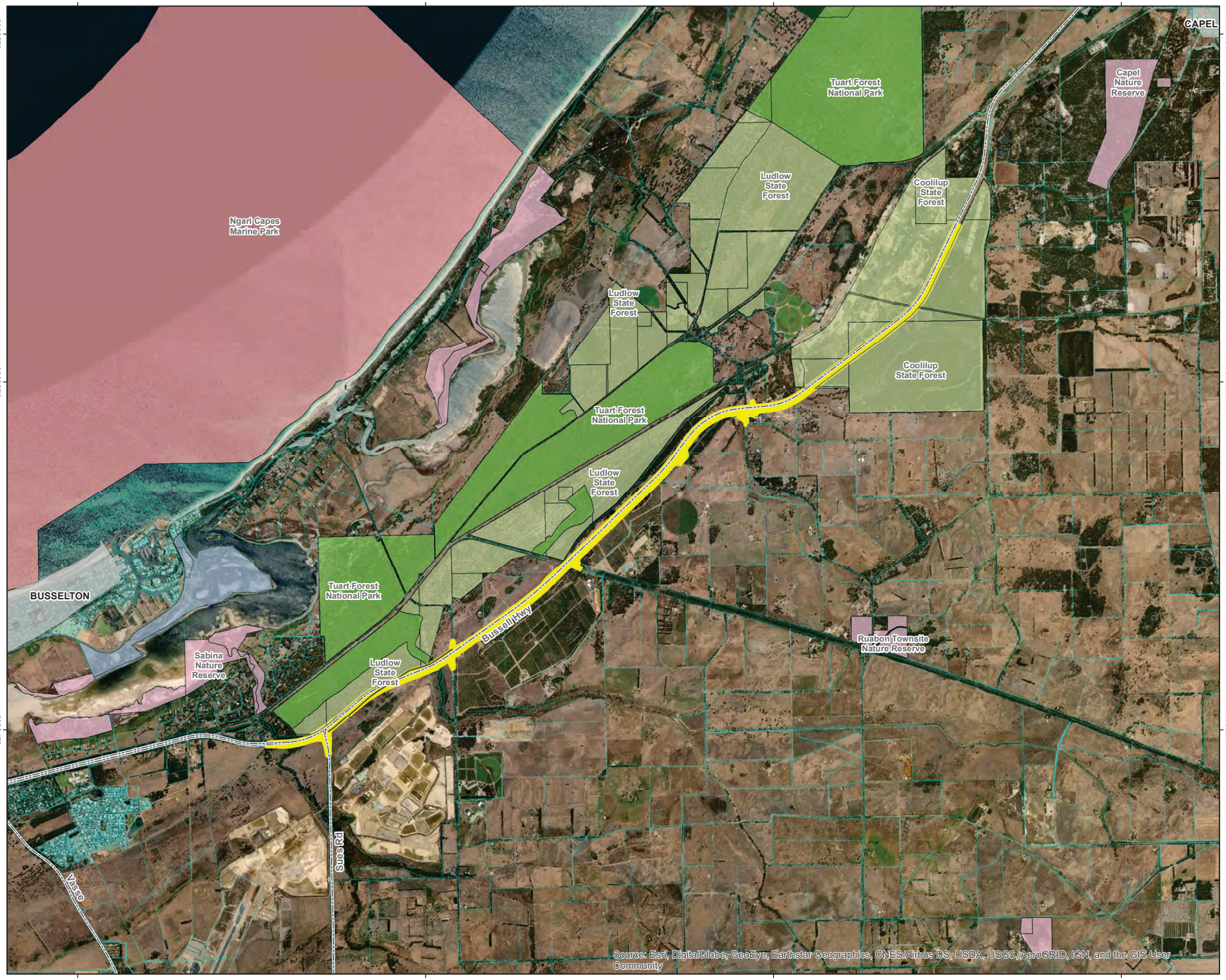


Plate 1. The Project Area, shown in red, is located east of Busselton, 200 km from Perth.



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H043 Bussell Hwy [31.15 to 44.0 SLK] Stage 2

Hutton to Sabina Construct Second Carriageway

Proposal Area Location

Figure 1

Legend

- Proposal Area
- Cadastre
- Built up Areas
- State Roads

DBCA Legislated Lands and Waters

- Marine Park
- National Park
- Nature Reserve
- Section 5(1)(h) Reserve
- State Forest

N

0 0.5 1 2
Kilometers

Scale 1:50,000

Datum: GCS GDA 1994

Projection: GDA 1994 MGA Zone 50

Date:	15/01/2021
Status:	Draft
Figure:	1
Sheet Size:	A3
Internal Reference:	21108493_1102_001_00 Fig 1
Drawn by:	GSM
Requested by:	MP

Ver.	Comment	App.	Date

2.3 Requirements of the conditions

This Plan is submitted in accordance with conditions 4, 8 and 9 of EPBC Act approval for EPBC 2020/8800. Condition requirements that relate to this Plan and in-plan section references are provided in Table 2-1.

The following documents have guided the preparation of this Plan:

- *Environmental Management Plan Guidelines* (Commonwealth of Australia, 2024).

Table 2-1. Conditions of Approval Notice EPBC 2020/8800 Reference Table

Condition No.	Condition	Section of this Plan
Offsets		
4	To compensate for the residual significant impacts to WRP, Black Cockatoos and the Tuart Woodlands TEC, the approval holder must:	
	a) acquire and secure for use as an offset site the entirety of Lots 200 and 201 West Boundary Road, Manjimup, Western Australia (being the areas respectively outlined red and yellow in Attachment B)	Appendix A and Appendix B
	b) acquire and secure for use as an offset site at least 8.78 ha of SF No. 2 near Busselton, Western Australia (of the areas outlined purple and green in Attachment C)	Appendix C
	c) secure the offset sites identified in conditions 4a and 4b, within 12 months of the date of this approval	Appendix B (Lots 200 and 201)
	d) provide written evidence to the department that the offset sites identified in conditions 4a and 4b have been acquired and secured, within 12 months of the date of this approval; this written evidence must also identify the securing mechanism by which each offset site will be permanently protected for conservation.	Appendix B and Section 3.4 (Lots 200 and 201) Appendix C and Section 4.4 (SF No. 2)
5	To compensate for the residual significant impacts to WRP, Black Cockatoos and the Tuart Woodlands TEC, the approval holder must:	
	a) manage 29 ha of vegetation at Lots 200 and 201, West Boundary Road, Manjimup to prevent degradation of Black Cockatoo habitat.	Section 3
	b) manage 37 ha of vegetation at Lots 200 and 201, West Boundary Road, Manjimup to prevent degradation of WRP habitat	Section 3
	c) revegetate, rehabilitate and manage 7.4 ha of vegetation in SF No. 2 to provide habitat for WRP	Section 4
	d) revegetate, rehabilitate and manage 8.78 ha of areas in SF No. 2 to create and maintain 8.78 ha of Tuart Woodlands TEC.	Section 4
	e) Undertake all revegetation, rehabilitation and management in accordance with the methods and reporting processes required by conditions 8, 9 and 10.	Section 2, Section 3, Section 4, Section 5 and Section 6

Condition No.	Condition	Section of this Plan
Offset Management Plan		
8	The approval holder must submit for the Minister's approval, within 12 months of the date of this approval, an Offset Management Plan for each of the offset sites specified in conditions 4 and 5. Each Offset Management Plan must be consistent with the department's Environmental Management Plan Guidelines, and must include the following. A single Offset Management Plan covering all offset sites may be provided.	This Plan
	a) A summary of the residual impacts to protected matters that will be compensated for by the offsets. This summary must include the size and habitat quality of all impact sites.	Section 2.7
	b) The environmental objectives, relevant protected matters and a reference to the EPBC Act approval conditions to which each Offset Management Plan refers.	Objectives (Sections 3.6.1, 4.6.1) Relevant MNES (Sections 3.1, 4.1) Conditions (Section 2.3)
	c) A table of commitments made in each Offset Management Plan to achieve the environmental objectives, and a reference to where the commitments are detailed in each Offset Management Plan.	Section 2.5
	d) Reporting and review mechanisms, and documentation standards to demonstrate compliance with each Offset Management Plan.	Sections 5.2, 6
	e) An assessment of risks to achieving environmental objectives and risk management strategies that will be applied.	Sections 3.7 and 4.7
	f) Impact avoidance, mitigation and/or repair measures, and their timing.	Section 2.7
	g) A monitoring program, which must include:	
	i. measurable performance indicators	Sections 3.8 and 4.8
	ii. the timing and frequency of monitoring to detect trigger values and changes in the performance indicators	Sections 3.8 and 4.8
	iii. trigger values for corrective actions	Sections 3.8 and 4.8
	iv. proposed corrective actions, if trigger values are reached.	Sections 3.8 and 4.8
	h) Links to referenced plans and applicable conditions of approval (including State approval conditions).	Sections 2.2.2, 3.6.2, 4.6.2
	Each Offset Management Plan, as approved by the Minister in writing, must be implemented when approved by the Minister.	N/A
9	In addition to the requirements of Condition 8, each Offset Management Plan must:	
	a) establish revegetation outcomes for the SF No. 2 offset site to achieve the conservation targets identified in Condition 5 and that will:	
	i. for the WRP, provide 7.4 ha of habitat that contains understorey and midstorey vegetation comprising Peppermint (*Agonis flexuosa*) and other native species, and must also contain connected canopy habitat formed by native species	Sections 4.6.1
	ii. create 8.78 ha of "Moderate" quality Tuart Woodlands	Sections 4.6.1

Condition No.	Condition	Section of this Plan
	TEC as defined in Table 2 of the Tuart Woodlands TEC Conservation Advice	
	iii. prevent unauthorised access by erecting fencing around revegetated areas wherever possible and maintain such fencing	Sections 4.6.1, 4.6.3
	iv. undertake weed control to maintain a predominance of native species in understorey, midstorey and canopy vegetation for at least 20 years	Sections 4.6.1, 4.6.3
	v. minimise feral animal populations with ongoing management for at least 20 years	Sections 4.6.1, 4.6.3
	b) establish management outcomes for the West Boundary Road offset site in Manjimup to achieve the conservation targets identified in Condition 5 and that will:	
	i. prevent unauthorised access and site degradation by erecting fencing around managed areas wherever possible and maintain such fencing	Sections 3.6.1, 3.6.3
	ii. undertake weed control to maintain a predominance of native species in understorey, midstorey and canopy vegetation for at least 20 years	Sections 3.6.1, 3.6.3
	iii. minimise feral animal populations with ongoing management for at least 20 years	Sections 3.6.1, 3.6.3
	c) include attached written agreement from DBCA to all measures in conditions 9a and 9b	Sections 3.4 and 4.4
	d) sufficiently describe the methods by which revegetation and/or rehabilitation will be undertaken at each offset site to achieve the revegetation outcomes and identify:	Sections 3.6.3 and 4.6.3
	i. the timeframe for the revegetation and rehabilitation activities to be undertaken	Sections 3.6.3 and 4.6.3
	ii. the funding arrangements under which the revegetation and rehabilitation actions will be undertaken	Sections 3.4, 4.4
	iii. the name, qualifications and experience of the suitably qualified expert who will manage all revegetation and rehabilitation actions	Section 2.5
	e) detail ongoing management actions to ensure that, once any revegetation or rehabilitation target, as specified in each Offset Management Plan, is reached, each such target continues to be met or exceeded for at least 20 years, including details of:	Sections 3.6.3, 3.7, 3.8, 4.6.3, 4.7 and 4.8
	i. the funding arrangements under which the maintenance actions will be undertaken	Sections 3.4, 4.4
	ii. the suitably qualified expert who will manage maintenance actions	Section 2.5
	f) identify any contingency actions to be implemented should revegetation, rehabilitation or management actions fail, which if agreed to by the department in writing, must be implemented	Sections 3.7 and 4.7
	g) detail monitoring, reporting and evaluation mechanisms for revegetation, rehabilitation and management actions and propose suitable reporting frameworks to the department.	Sections 3.8, 4.8 and 5

2.4 Limitations

The Plan has been prepared by Main Roads personnel who meet the definition of a suitably qualified expert described in Section 2.5 and defined in EPBC 2020/8800. Main Roads has experience in numerous previous conservation and rehabilitation projects in the vicinity of the Project as well as more broadly. The Plan is supported by a suite of baseline surveys and existing management plans prepared by specialist consultants and agencies, summarised in Sections 3.3 and 4.3 and referenced throughout the Plan. Collectively, these provide a robust understanding of the environmental values of both offset areas. While some limitations are inherent in any ecological dataset, the residual risks to successful implementation of the Plan are considered low.

Limitations and Uncertainty

- Survey coverage – While survey intensity varies between studies, the survey work across both offset areas and adjoining lands provides a strong baseline for management.
- Fauna data in SF No. 2 Offset Area – Although no site-specific fauna surveys have been undertaken at Site 3, numerous regional surveys in contiguous vegetation confirm the presence and likely ongoing use of the site by Black Cockatoos and WRP.
- Methodological variation – Minor differences in survey approach between consultants exist, but these do not materially affect the reliability of the data.
- Environmental dynamics – Natural processes such as fire, disease and climate may influence habitat condition, but this is accounted for through proposed management and monitoring actions.

Risks to Plan Implementation

- The risk of management actions being ineffective is considered low, as management measures are designed around known species requirements and known effective revegetation area management measures, including a robust process for corrective action.
- The likelihood of Plan failure due to data limitations is considered low.

Mitigation of Limitations and Uncertainty

- Adaptive management ensures that monitoring results are incorporated into management measures, allowing refinement of the Plan where required.
- Regional knowledge from DBCA and consultant studies provides additional assurance where site-specific surveys are limited.
- Ongoing monitoring will further reduce any uncertainty over time.

Accordingly, the limitations identified do not materially compromise the delivery of offset objectives. Residual risks are low and effectively mitigated through the adaptive and precautionary framework built into this Plan.

2.5 Table of commitments

In accordance with condition 8(c) of EPBC 2020/8800, Table 2-2 presents a table of commitments made in this Plan to achieve the ecological benefits for MNES impacted by the Project (as outlined in Section 2.7), and a reference to where the commitments are detailed in this Plan.

The works proposed under this Plan will be managed by Main Roads' Principal Environment, Senior Environment and Environment Officers who hold the relevant qualifications, and who collectively have more than 50 years' experience in environmental management in south west Western Australia. All personnel managing revegetation and rehabilitation actions, and maintenance actions will meet the definition of a suitably qualified expert as defined in EPBC 2020/8800, meaning they will hold professional qualifications in environmental science and will have at least (3) years of work experience monitoring, designing and/or implementing surveys for revegetation/rehabilitation programs of native vegetation.

Table 2-2. Table of commitments

Relevant MNES	Commitment	Section of this Plan
WRP	West Boundary Road (WBR) Offset Area: Protection, conservation or creation of 37 ha of WRP habitat	3
	SF No. 2 Offset Area: Rehabilitation, revegetation and / or management of 7.4 ha of WRP habitat	4
Black Cockatoos	WBR Offset Area: Protection and conservation of 29 ha of Black Cockatoo foraging and potential nesting habitat	3
Tuart Woodlands TEC	SF No. 2 Offset Area: Protection and conservation of 8.78 ha of Tuart Woodlands TEC vegetation	4

2.6 Impact avoidance and mitigation

Information for this section is summarised from the *Bussell Highway Duplication Stage 2 Hutton to Sabina Section Preliminary Documentation* (Main Roads Western Australia, 2021), wherein further information can be found.

Avoid

During Project planning, five design concepts were considered. Key selection criteria used in the assessment included the amount of vegetation clearing/habitat loss, amount of fill material required, closeness to the existing carriageway, and compliance with design standards. The chosen option minimised impacts to native vegetation and habitat whilst still maintaining necessary safety standards and efficient resource use.

The Project design was refined in order to avoid important environmental values, including WRP and Black Cockatoo habitat and Tuart Woodlands TEC. This has involved reducing the median width, and steepening batters and drainage slopes.

Mitigation/Management

Main Roads devised SMART performance standards for WRP, Black Cockatoos and Tuart Woodlands TEC and identified a range of management actions to be implemented to control and minimise direct and potential indirect impacts of the Project to these MNES and associated habitat. Management actions were informed by the results of field studies, best practice and recent

experience on similar road projects in Western Australia, and were designed to minimise potential residual impacts and achieve the identified management targets.

2.7 Summary of impacts

Residual impacts for which Main Roads are required to provide environmental offsets are detailed in Table 2-3.

Table 2-3. Residual environmental impacts requiring offset

Environmental attribute	Residual impact	Impact site detail
WRP habitat	24.0 ha	WRP and Black Cockatoo habitat in the impact area comprises a long narrow (up to 31 m wide) strip of vegetation adjacent to an existing dual-lane highway. It is made up of a mixture of low-diversity remnant, non-native and regrowth vegetation interspersed with larger portions of cleared land. It is structurally simple and does not provide a diverse range of habitat values (360 Environmental, 2017).
Black cockatoo habitat	20.8 ha	
Tuart Woodlands TEC	2.0 ha	Tuart Woodlands TEC within the impact area occurs in three separate patches. Of the total 2.0 ha to be cleared, 1.45 ha was assessed as Moderate quality, 0.5 as Poor and 0.05 ha as Poor-Moderate quality (Ecoedge, 2020a; Ecoedge, 2020b).

3 WEST BOUNDARY ROAD OFFSET AREA

This chapter describes the Lot 200 and Lot 201 West Boundary Road, Manjimup offset (WBR Offset Area). The following sections identify:

- The offset being proposed (Section 3.1)
- The environmental attributes of the offset (Section 3.2)
- The protection mechanism for the offset (Section 3.4)
- Management and / or rehabilitation actions, including objectives, targets, completion criteria (Sections 3.6)
- Risk management (Section 3.7).
- Monitoring (Section 3.8)

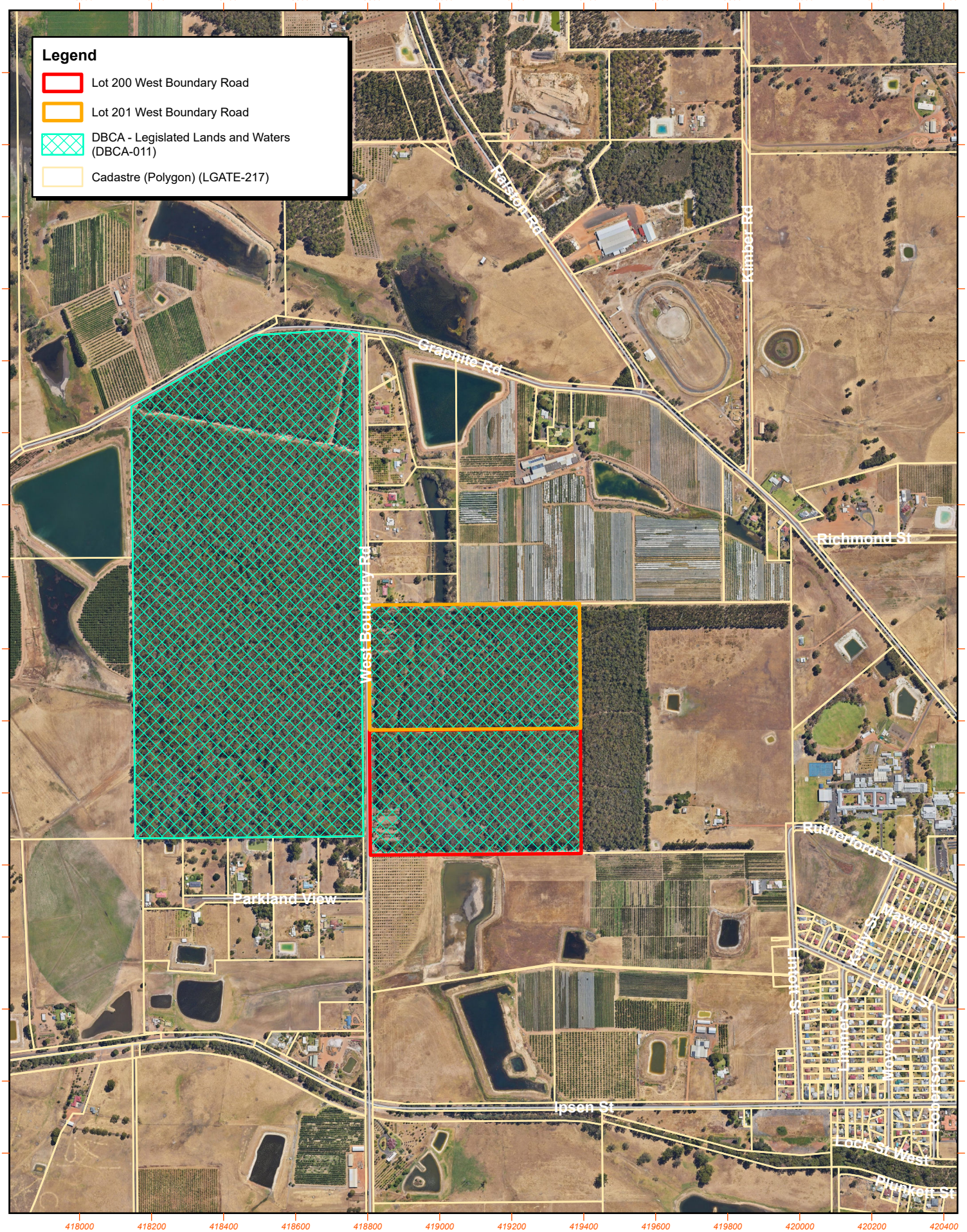
3.1 Identification of offset

The WBR Offset Area comprises Lots 200 (20.3 ha) and 201 (20.3 ha) West Boundary Road, Manjimup which have a total area of 40.6 ha (Figure 2). Lots 200 and 201 were purchased by Main Roads in 2021 for use as environmental offsets. The previous owners had cleared approximately 1 ha on each lot for future building envelopes and fire breaks. A total of 37 ha of vegetation on the two properties is proposed as the WBR Offset Area.

The WBR Offset Area is located adjacent to the 85.2 ha Faunadale Nature Reserve (Reserve 15762) which is managed by DBCA for the purposes of conservation and is a recognised WRP stronghold (Biota, 2020a) (Figure 2). Biota surveyed Reserve 15762 as part of their Regional WRP Survey (Biota, 2020a), which at that time was found to contain a WRP population of 65 individuals.

DBCA strongly supported the purchase of Lots 200 and 201 as future additions to Reserve 15762, and have confirmed willingness to take over management of these properties and manage them congruent with management of the adjacent Faunadale Nature Reserve (Appendix A). Main Roads has formally transferred Lots 200 and 201 to DBCA with both lots now amalgamated into conservation estate as part of Faunadale Nature Reserve (R15762).d

Within the 37.0 ha WBR Offset Area, 37.0 ha has been identified to address WRP offset requirements, and 29.0 ha has been identified to address Black Cockatoo offset requirements.



N

Coordinate System: GDA2020 MGA Zone 50
Scale: 1:13,500 @ A4
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Author: C11025

0 250 500
Meters

Bussell Hwy Stage 2 - Hutton to Sabina

Figure 2. West Boundary Road Offset Area and Faunadale Nature Reserve location

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3.2 Offset outcomes

The WBR Offset Area provided 95.45 % and 101.22 % of the offset required for impacts to WRP and Black Cockatoos, respectively. The offset calculator inputs for the property for both WRP and Black Cockatoos is shown in Table 3-2.

Table 3-1. Offset Calculator Inputs for WBR

Attribute	Agreed Values for WRP	Agreed Values for Black Cockatoo
Starting Amount	37	29
Start quality	7	7
Future quality without offset	6	6
Future quality with offset	7	7
Risk of loss without offset (%)	80	80
Risk of loss with offset (%)	15	15
Confidence in result (%) averted loss	95	95
Confidence in result (%) habitat quality	95	95
% of Offset Impact (Risk of Loss contribution)	95.45% (91.17%)	101.22% (96.91%)

The value of the property as an offset is largely derived from it being previously at risk of being cleared given it was held as freehold land that recently had a valid clearing permit issued (Risk of Loss set at 80%), with the Risk of Loss contributing 91.17 % and 95.91 % for WRP and Black Cockatoos, respectively.

The objectives of the on-ground actions to be implemented, such as fencing and fire break management, will ensure the habitat quality present on the property does not deteriorate, i.e. maintain a habitat quality condition score of 7.

3.3 Environmental attributes of offset area

The WBR Offset Area provides the following offset values for the Project:

- 36.3 ha of existing WRP habitat.
- 29 ha of Black Cockatoo foraging habitat.

In addition to these existing values contained within the site, 0.7 ha of revegetation will be undertaken at the WBR Offset Area to provide additional WRP habitat.

Specifics of the offset values contained within each lot are summarised below.

3.3.1 Environmental values - Lot 200

Harewood (2015) conducted a Fauna Assessment of Lot 5 Rutherford Street, which included what is now Lot 200. The survey identified that the vegetation of Lot 200 comprises Marri, Blackbutt, Karri and Jarrah open forest/woodland similar to that present on the adjacent Lot 201. Approximately 1 ha of the site (in the southwest corner) was cleared by the previous owners and is devoid of vegetation. Biota conducted a fauna survey of Lot 200 in 2021 to determine the extent and quality

of WRP and Black Cockatoo habitat present on the site (Biota, 2020b). Biota's survey confirmed that the site contained the following values:

- 664 suitable diameter at breast height (DBH) trees (>500 mm DBH)
- Seven trees containing hollow(s) potentially suitable for Black Cockatoos, one of which was confirmed by pole-mounted camera assessment to contain one hollow potentially suitable for Black Cockatoos (no signs of use)
- 15.3 ha of the vegetation representing foraging and potential breeding habitat for Black Cockatoos, with an additional 3.7 ha of potential breeding habitat for Carnaby's Cockatoo
- Site vegetation was mainly in Good to Very Good condition
- 19 ha of habitat for WRP.

3.3.2 Environmental values - Lot 201

Environmental surveys conducted at Lot 201 (Harewood, 2020; Biodiverse Solutions, 2020) confirmed that Lot 201 supports the following environmental values:

- 327 suitable diameter at breast height (DBH) trees (>500 mm DBH)
- 16 trees supporting hollows potentially suitable for Black Cockatoos, based on ground assessment
- 17.3 ha foraging and potential breeding habitat for Black Cockatoos
- 17.3 ha of habitat for WRP (three individuals were observed during the field survey)
- Approximately 1 ha of the site in the northwest corner was cleared and is devoid of vegetation
- Site vegetation was mainly in Good to Very Good condition.

Harewood (2020) concluded that the quality of the WRP habitat occurring within the property will improve over time as the site vegetation continues to regenerate. Approximately 1 ha of the site (in the northwest) corner was cleared by the previous owners and is devoid of vegetation.

3.3.3 WRP abundance in 2023 at Lot 200, Lot 201 and Faunadale Nature Reserve

After their initial survey in 2019 (Biota, 2020a), in November 2023, Biota conducted follow-up WRP abundance monitoring at Lots 200 and 201 and the adjoining Faunadale Nature Reserve (Biota, 2024). Abundance estimates for WRP from the November 2023 survey, conducted four years after the initial count in July 2019, revealed an increase in abundance from 130 ± 17 individuals (1.54 individuals/ha) in 2019 to 173 ± 28 individuals (2.04 individuals/ha) in 2023 (Biota, 2024).

3.3.4 Flora and Vegetation Monitoring

Ecoedge (2023) conducted flora and vegetation monitoring of Lot 200 and Lot 201 to assist in planning for any necessary rehabilitation works and offset management actions. Six 10 m x 10 m floristic quadrats were randomly located within remnant vegetation within the offset site to assess:

- Species richness and cover
- Ground cover (%)
- Weeds and cover
- Vegetation condition

- Evidence of kangaroo or other herbivore grazing.

To set up and assess one quadrat within the 0.7 ha revegetation area to assess:

- Weed and native species cover
- Vegetation condition.

A total of 113 taxa from 34 families were recorded from the seven quadrats. Ninety-two of these species were native and 21 were weeds. No significant flora was recorded during the spring survey, including those species protected under both the State *Biodiversity Conservation Act 2016* (BC Act) and EPBC Act. The average native species richness within the revegetation area quadrat was 28 species compared to the total quadrat survey area average of 37.33 and quadrats installed in the area of the Yanmah Vegetation complex of 32.5 species. Whilst the level of diversity is comparable to the quadrats located in the Yanmah complex in terms of species number, the current description of vegetation is not similar to what might be expected for the Yanmah complex. Additional species, particularly canopy species, will be required to be planted to meet its description. Fifteen weed species were recorded within the revegetation area quadrat compared to the average of 5.33 species recorded for the remnant area.

One declared pest plant and Weed of National Significance (WONS), Blackberry (*Rubus anglocandicans*) was recorded in two quadrats in the remnant vegetation (MAN04 and MAN06) and the revegetation area quadrat (MAN05). This species presents a threat to both the remnant vegetation and revegetation efforts.

The six quadrats within the remnant vegetation were in an Excellent condition. This is contrasted by the Degraded condition recorded for the quadrat within the revegetation area.

The average cover of native foliage across the six quadrats within the remnant vegetation was 67.5% whereas the cover for the quadrat within the revegetation area was 50%. The lower foliage cover score is because of the absence of established canopy and mid storey species in the revegetation area.

Vegetation within two quadrats, including the revegetation area quadrat showed evidence of grazing of vegetation by kangaroos. However, this impact was not readily observable and limited to few species.

Overall, the plants within both the remnant area and revegetation area were not stressed and had >80% of the original canopy present, healthy with little or no leaf yellowing and no evidence of wilting of foliage.

3.3.5 Fire History

Ecoedge (2023) did not note any impacts to the vegetation from fire with the majority of vegetation in Excellent condition. A search through historical fire records for the site indicate that the site was last burnt following a prescribed cell treatment burn in 1939 (DBCA 2025). More recently a controlled burn of stockpiled cleared material was undertaken by DBCA in autumn 2023 as part of hazard reduction activities.

3.4 Protection mechanism and management contribution

Lots 200 and 201 have been acquired by Main Roads. Lot 200 was acquired by Main Roads by outright purchase with settlement occurring on 19 August 2021 and Lot 201 was acquired via outright purchase with settlement occurring on 14 January 2021.

Main Roads has formally transferred Lots 200 and 201 to DBCA with both lots now amalgamated into conservation estate as part of Faunadale Nature Reserve (R15762). DBCA have previously indicated that they will take on management of the properties as part of the conservation estate (DBCA, 2020). DBCA is the primary management agency for flora and fauna in Western Australia, with responsibilities including the management of the State's conservation estate, such as national parks and nature reserves. The WBR Offset Area is located on Crown land managed by DBCA under the *Conservation and Land Management Act 1984*, and in accordance with the DBCA Forest Management Plan (FMP) (DBCA, 2023). Accordingly, the site has long-term tenure protection and is considered suitable for use as an environmental offset.

Main Roads will be responsible for the implementation of revegetation works, ongoing monitoring and maintenance, and reporting in accordance with EPBC 2020/8800, beginning in 2025 and continuing for a maximum period of 20 years, or until the agreed completion criteria are met.

A MoU between Main Roads and DBCA is currently being prepared and is expected to be finalised by July 2026. The MoU will outline:

- The long-term management requirements for the WBR Offset Area.
- The provision of funding by Main Roads for ongoing management costs; and
- The terms for handover of the site to DBCA following completion of offset obligations.

Following handover, DBCA will assume ongoing management of the site in line with the objectives of the FMP (DBCA, 2023) which for biodiversity and threatened species include:

- Conserve biodiversity and self-sustaining populations of native species and communities through a system of reserves that is comprehensive, adequate and representative.
- Conserve and protect biodiversity including threatened and priority species and ecological communities in the planning area.

Revegetation works have already begun in collaboration with and agreement from DBCA. Main Roads commits to ensuring that the MoU is executed by July 2026, and will update this Plan if required to reflect any additional commitments agreed between DBCA and Main Roads. Upon handover, DBCA will be obligated to uphold the conditions of the MoU and the management objectives of the FMP, in accordance with the *Conservation and Land Management Act 1984*.

3.5 Management approach

Management of the WBR Offset Area is based on the approach outlined in Table 3-2.

Table 3-2. The WBR Offset Area management approach

Management aspect	Description	Defined in
Objective	Aim of the Offset Area	Table 3-3
Target	Specific goal identified for the Offset Area	
Completion criteria	Measurable outcomes identified for the Offset Area	
Management actions	Actions to be taken to achieve stated objective, targets and completion criteria, including timing	Section 3.6 and 3.7
Monitoring program	Assessment of progress towards achievement of objective, targets or completion criteria	Sections 3.7, 3.8 and 5
Performance indicator	Variable that allows for measurable assessment of progress towards achievement of objective, targets or completion criteria	
Trigger value	Measurable event in any assessed parameter that indicates achievement of the objective, targets or completion criteria is be at risk	
Corrective actions	Action(s) to be taken in response to a trigger value being reached	
Reporting	Documentation of progress towards achievement of the objective, targets or completion criteria and any non-compliances that have occurred	
Risk assessment	Consideration and appraisal of risks that may impede achievement of the objective, targets or completion criteria	Section 3.7.
Risk management strategies	Actions to be taken to manage and mitigate identified risks	

3.6 Management and rehabilitation actions

3.6.1 Objectives, targets and completion criteria

Table 3-3 sets out the objectives, targets and completion criteria for the WBR Offset Area. The proposed completion criteria detailed in the table are consistent with existing criteria for land acquisition offset sites used in Main Roads other projects.

Table 3-3. Objective, targets and completion criteria for the WBR Offset Area

Objective	Target	Completion criteria
Counterbalance the significant residual impact to 24 ha of WRP habitat and 20.8 ha of Black Cockatoo habitat	To manage 36.3 ha of WRP habitat, which incorporates 29 ha of Black Cockatoo habitat, and to create 0.7 ha of WRP habitat	Management or creation of a total of 37 ha of WRP habitat incorporating 29 ha of Black Cockatoo habitat. The offset site will meet the following completion criteria: • Access is restricted • Native species predominate understorey, midstorey and canopy vegetation • Firebreaks are in place and well maintained • Site management for long term conservation (maximum 20 years) will include fencing and firebreak maintenance, and, where their impacts compromise achievement of stated

Objective	Target	Completion criteria
		completion criteria, weed control and pest animal control, to maintain / improve habitat quality and vegetation condition. • In the 0.7 ha revegetation area: o Average native overstorey species richness (>2 m height) is no less than 4 species per expanded 20 m x 20 m tree monitoring quadrat. o Average native understorey species (<2 m in height) richness is no less than 6 species per 10 m x 10 m monitoring quadrat. o No WONS and declared weed present. o No more than 30% average bare ground cover.

3.6.2 Consistency with Recovery Plans

The objectives and targets in Table 3-3 and the activities proposed in Section 3.6.3 are consistent with the WRP Recovery Plan (DPAW, 2017) and Black Cockatoo Recovery Plans (DPAW, 2008; DPAW, 2013), as summarised in Table 3-4.

Table 3-4. Consistency of activities at the WBR Offset Area with relevant recovery plans

Objective and action themes from recovery plan / conservation advice	Activities undertaken within this Plan
WRP	
Threatening processes that are constraining the recovery of WRP's are mitigated	• Rehabilitation, revegetation and / or management of 37 ha of WRP habitat • Weed control and pest animal control where their impacts compromise achievement of stated completion criteria • Control measures to mitigate unplanned bushfires
Carnaby's Cockatoo	
Implement management to protect and improve the condition of breeding habitat and associated feeding habitat, including activities that promote regeneration and revegetate areas within and adjacent to breeding habitat and associated feeding habitat	• Rehabilitation, revegetation and / or management of 29 ha of foraging habitat • Weed control and pest animal control where their impacts compromise achievement of stated completion criteria • Control measures to mitigate unplanned bushfires
Baudin's Cockatoo	
Undertake habitat restoration by revegetating suitable areas with key tree species	• Rehabilitation, revegetation and / or management of 29 ha of foraging habitat
Stop further decline in the breeding populations of the Black Cockatoo and to ensure their persistence throughout their range in the southwest of Western Australia	• Weed control and pest animal control where their impacts compromise achievement of stated completion criteria • Control measures to mitigate unplanned bushfires
Forest Red-tailed Black Cockatoo	
Stop further decline in the breeding populations of the Black Cockatoo and to ensure their persistence throughout their range in the southwest of Western Australia	• Rehabilitation, revegetation and / or management of 29 ha of foraging habitat

Objective and action themes from recovery plan / conservation advice	Activities undertaken within this Plan
	• Weed control and pest animal control where their impacts compromise achievement of stated completion criteria • Control measures to mitigate unplanned bushfires

3.6.3 Management and rehabilitation actions and timeframes

The following management and rehabilitation actions will be undertaken as part of the WBR Offset Area establishment to ensure the existing quality of the habitat on site will be maintained. An adaptive management approach will be taken based on on-going monitoring of the revegetation works and site specific lessons learned to achieve the completion criteria.

3.6.3.1 Management actions

Fence installation. Access to the site was restricted in 2022 through the installation of fencing to the property boundary and lockable gates. Access control is an effective tool for preventing a range of detrimental impacts to bushland caused by unauthorised vehicle access, such as land degradation, trampling of vegetation, illegal dumping of rubbish and spread of weeds and disease, and unauthorised and unwanted access to the site. Controlling access prevents people (including vehicles) from causing land degradation, interference with revegetation works and the spread of weeds and diseases. Routine maintenance and fire access will be achieved through the use of existing firebreaks and tracks. Annual vehicle and foot inspections which begun in 2025 will be undertaken to determine the effectiveness of the fence and identify any maintenance requirements or corrective actions.

Fire management. Firebreaks have been installed and will be maintained to the required standard to assist in the mitigation of unplanned fire. A controlled burn of stockpiled cleared material was undertaken by DBCA in autumn 2023 as part of hazard reduction activities. Firebreaks will be inspected and maintained annually to Shire of Manjimup and DBCA specifications to ensure buildup of flammable materials on firebreaks is not increasing fire risk.

Drainage. Due to restricted access caused by winter water levels along the natural creek line, an internal culverted access track was installed along the existing boundaries of the two lots in 2023. Annual inspections which begun in 2025 will be undertaken to identify any maintenance requirements or corrective actions for culvert infrastructure.

Rubbish removal. Rubbish will be removed from the site to improve vegetation condition and improve revegetation success. Annual vehicle and foot inspections which begun in 2025 will be undertaken to identify any rubbish requiring removal from the site.

Weed control. The weed control requirement for the WBR Offset Area will be determined based on the outcomes of monitoring. If weeds predominate the vegetation to an extent that they will diminish the quality of the Black Cockatoo and WRP habitat (i.e. compromise achievement of completion criteria stated in Section 3.6.1, weed control will be undertaken to ensure that native species are predominant. The control of weeds will also be undertaken where they are impacting the success of revegetation works in the 0.7 ha rehabilitation area. A baseline weed survey was undertaken in 2021 and initial weed control undertaken in the winter of 2023. Initial flora and vegetation monitoring was undertaken by Ecoedge (2023) and will continue in accordance with monitoring described in Section 3.8. Weed control will continue in 2026 based on monitoring

results to ensure the control of WONS and declared weeds. Weed monitoring and, where required, management will be ongoing for a maximum period of 20 years to ensure the quality of habitat within WBR does not reduce.

Pest animal control. Annual vehicle and foot inspection to identify and record evidence of pest animals will begin in 2026. Where on site observations indicate impacts to vegetation and/or revegetation from rabbits or foxes, control measures such as baiting and / or trapping will be undertaken. Rabbit baiting using a combination of Rabbit Haemorrhagic Disease Virus (RHDV), Pindone or 1080 (sodium fluoroacetate) will be undertaken annually from spring through to late autumn. Fox baiting using 1080 will be undertaken annually during late winter through to autumn. Pest animal monitoring and, where required, control (based on site observations of impacts to habitat quality) will be ongoing for a maximum period of 20 years to ensure the quality of habitat within WBR does not reduce.

Phytophthora dieback management. Main Roads' standard management practices for dieback will be implemented during all management, maintenance and monitoring activities conducted onsite which shall include:

- Prior to arrival on site all plant, machinery, equipment and tools are to be cleaned; and
- Prior to departure from the site all plant, machinery, equipment and tools are to be cleaned.

A baseline dieback assessment was conducted by DBCA in Q2 2023 (DBCA, 2023) with large portions of the site mapped as infested and / or uninterpretable. Central portions of the site were mapped as uninfested and protectable. Follow up dieback assessments will be undertaken every 5 years with the next assessment due in 2028.

Black Cockatoo Habitat Condition. Fauna surveys including targeted Black Cockatoo assessments for the WBR Offset Area have been undertaken by Harewood (2015), Harewood (2020), Biodiverse Solutions (2020) and Biota (2020) and have found the site vegetation contained high quality foraging and nesting habitat for all three Black Cockatoos (excluding the 0.7 ha revegetation area). Similarly Ecoedge (2023) found the six quadrats within the remnant vegetation were in an Excellent condition. The above listed management measures (i.e. fencing, fire, drainage, rubbish, pest and dieback management) are in place to prevent degradation of habitat condition within the site. Monitoring measures are also described in Section 3.8.

3.6.3.2 Rehabilitation actions

A total of 0.7 ha of revegetation will be undertaken at the WBR Offset Area to provide WRP habitat. Rehabilitation works will consist of site preparation (fencing, weed control, ripping/furrowing and pest animal monitoring/control), planting or direct seeding and ongoing management.

Approach. The site preparation and revegetation methodology to be applied is the same as that applied in the past to other Main Roads revegetation sites, with minor variation dependant on site conditions. Aspects comprising this approach are outlined below.

Seed and material sourcing. Licenced seed collectors will be engaged to collect native seed over several years until sufficient seed is collected. Collected seed will be used for both propagation of seedings and for direct seeding in select areas. Vegetative material such as cuttings and material obtained by division will also be collected for species where this is a more effective method. Initial seed collection will be completed by the end of summer 2026/27.

Seedling propagation. Collected seed and vegetative material will be provided to nurseries that meet the Nursery and Garden Industry Western Australia certification to ensure appropriate hygiene protocols are observed. Alternative nurseries will be considered as potential suppliers if the plants can be supplied to the required standards and conditions. Seedlings may also be sourced directly from commercial nurseries to provide additional flexibility in meeting supply needs. Seedlings will be ordered annually based on monitoring results and the plans for the upcoming planting season. Planting will begin in winter 2027.

Site preparation. Rip and furrow lines will be made throughout open areas to reduce soil compaction and improve air and water infiltration. Manual hand augering will be undertaken in areas where access is reduced or where lower impact site works is deemed appropriate. Initial site preparation works will be completed in 2026 then ongoing to meet completion criteria.

Species selection. Species to be used in the revegetation have been selected based on results of a flora surveys conducted at the site and based on their value as habitat and foraging vegetation for WRP and Black Cockatoos, and the general site parameters. The revegetation will include a variety of species within each structural layer to provide native vegetation cover. The indicative species list from which the revegetation species will be selected, based on those commercially available for use in revegetation, is presented in Appendix D.

Species richness. As per completion criteria, average native overstorey species richness (>2 m height) will be no less than 4 species per expanded 20 m x 20 m tree monitoring quadrat. Average native understorey species (<2 m in height) richness is no less than 6 species per 10 m x 10 m monitoring quadrat.

Seedling planting. Seedling planting and / or direct seeding will occur once the offset area is prepared (weed control, pest control, fencing). Seedlings will be planted with slow release native fertiliser tablets to offer suitable nutrients in the establishment phase. Initial planting will begin in 2027 and with infill planting to be undertaken based on recommendations from monitoring.

Planting density. Planting densities will be managed to maximise canopy connectivity and resource availability for WRP and foraging species for Black Cockatoos with a minimum of 3000 stems per hectare planted across all strata. Planting density will also aim to minimise bare ground (i.e. no more than 30% average bare ground cover across the revegetation area) and maximise the structural integrity and long-term viability of the established vegetation.

Completion of rehabilitation. The completion of rehabilitation will be evaluated against the completion criteria for the offset during floristic quadrat monitoring and visual inspection monitoring every three years beginning in 2028. Rehabilitation activities will continue until the rehabilitation criteria are achieved.

3.7 Risk management

A risk assessment was undertaken consistent with the methodology described in the DCCEEW Environmental Management Plan Guidelines (2024). Each risk was given a rating in terms of likelihood and consequence using the criteria which were then combined using a risk matrix to generate an overall risk rating of low, medium, high or severe. These criteria are detailed in Appendix E.

Potential risks to the successful implementation of this offset and achievement of the objectives in Section 3.6.1 are set out along with the management approach and mitigation controls for mitigating risks in Table 3-5. The risk assessment and mitigation strategy was undertaken based on information determined through biophysical surveys undertaken for the Project to date and on Main Roads' experience in previous conservation and rehabilitation projects in the vicinity of the Project as well as more broadly.

Table 3-5. WBR Offset Area implementation risk and mitigation strategies

Objective: Counterbalance the significant residual impact to 24 ha of WRP habitat and 20.8 ha of Black Cockatoo habitat										
Event or Circumstance	**Risk Rating**			**Management approach and mitigation controls**	**Timing Frequency or Duration**	**Residual Risk Rating**			**Monitoring Activity**	**Management Trigger**	**Corrective Action**
	Likelihood	**Consequence**	**Risk Level**			**Likelihood**	**Consequence**	**Risk Level**			
Unauthorised access resulting in degradation of native vegetation or damage to revegetation	Possible	Moderate	Medium	• Install fence to property boundary with lockable gates • Signage to be installed stating that access is forbidden	• Fencing completed in 2022 • Signage will be installed in 2026	Unlikely	Minor	Low	• Annual vehicle and / or on foot inspection to determine effectiveness and identify maintenance requirements • Annual vehicle and / or on	• Fence not present, intact or to specifications • Signage removed or damaged • Evidence of unauthorised access	• Investigate cause and raise incident report • Implement corrective actions including: - Review practicality of fencing design and structure - Undertake repair/modification of fence and signage - Improve personnel training and education - Review monitoring frequency and method • Monitor outcomes of corrective actions

Objective: Counterbalance the significant residual impact to 24 ha of WRP habitat and 20.8 ha of Black Cockatoo habitat										
Event or Circumstance	**Risk Rating**			**Management approach and mitigation controls**	**Timing Frequency or Duration**	**Residual Risk Rating**			**Monitoring Activity**	**Management Trigger**	**Corrective Action**
	Likelihood	**Consequence**	**Risk Level**			**Likelihood**	**Consequence**	**Risk Level**			
Unplanned fire impact on revegetation works or degradation of existing native vegetation	Possible	Moderate	Medium	• Maintain firebreaks to remove flammable material • Control burn of stockpiles of cleared windrowed material	• Firebreaks maintained annually • Windrowed material control burned in April 2023	Unlikely	Moderate	Low	foot inspection to determine effectiveness and identify maintenance requirements	• Firebreaks not to specified standard • Build-up of flammable materials (i.e. rubbish, vegetation stockpiles)	• Investigate cause and raise incident report • Implement corrective actions including: - Review practicality of firebreak network - Undertake firebreak modification and maintenance - Improve personnel training and education - Review monitoring frequency and method • Monitor outcomes of corrective actions

Objective: Counterbalance the significant residual impact to 24 ha of WRP habitat and 20.8 ha of Black Cockatoo habitat										
Event or Circumstance	**Risk Rating**			**Management approach and mitigation controls**	**Timing Frequency or Duration**	**Residual Risk Rating**			**Monitoring Activity**	**Management Trigger**	**Corrective Action**
	Likelihood	**Consequence**	**Risk Level**			**Likelihood**	**Consequence**	**Risk Level**			
Access prevented from winter rains and pooling of water	Likely	Minor	Low	• Installation of culverts to provide winter access	• Completed in April 2023	Unlikely	Minor	Low		• Winter access prevented	• Investigate cause and raise incident report. • Implement corrective actions including: - Review effectiveness of drainage works - Undertake necessary works to improve drainage - Review monitoring frequency and method • Monitor outcomes of corrective actions
Weeds predominate vegetation or are impacting success of revegetation	Likely	Moderate	Medium	• Conduct baseline weed survey • Conduct initial weed control • Ongoing weed control program	• Baseline survey completed winter 2021 • Initial weed control completed in winter 2023 • Annual control of weeds starting in 2026, where required (refer Section 3.6.3)	Possible	Moderate	Medium	• Floristic quadrat and visual inspection every three years beginning in 2028	• WONS and declared weeds present • Weed cover negatively impacting Black Cockatoo and WRP habitat	• Investigate cause • Implement corrective actions including: - Review effectiveness of weed control works - Undertake necessary works to improve weed control. - Review monitoring frequency and method • Monitor outcomes of corrective actions

Objective: Counterbalance the significant residual impact to 24 ha of WRP habitat and 20.8 ha of Black Cockatoo habitat										
Event or Circumstance	**Risk Rating**			**Management approach and mitigation controls**	**Timing Frequency or Duration**	**Residual Risk Rating**			**Monitoring Activity**	**Management Trigger**	**Corrective Action**
	Likelihood	**Consequence**	**Risk Level**			**Likelihood**	**Consequence**	**Risk Level**			
Evidence of herbivore grazing and predation by pest animals	Likely	High	High	• Install fence to property boundary with lockable gates • Fox control using 1080 baiting • Rabbit control using RHDV, Pindone or 1080.	• Annual inspection to identify evidence of pest animals will begin in 2026. If observations indicate presence of pest animals, baiting /trapping will be undertaken. Rabbit baiting to be undertaken from spring through to late autumn. Fox baiting to be undertaken during late winter through to autumn.	Possible	Moderate	Medium	• Annual vehicle and / or on foot inspection by suitably experienced personnel to identify and record evidence of pest animals	• Presence of pest animals that negatively impact Black Cockatoo and WRP habitat	• Investigate cause • Implement corrective actions including: - Review practicality of fencing design and structure - Undertake repair/modification of fence - Improve personnel training and education - Review monitoring frequency and method - Adjust baiting /trapping program if required • Monitor outcomes of corrective actions

Objective: Counterbalance the significant residual impact to 24 ha of WRP habitat and 20.8 ha of Black Cockatoo habitat										
Event or Circumstance	**Risk Rating**			**Management approach and mitigation controls**	**Timing Frequency or Duration**	**Residual Risk Rating**			**Monitoring Activity**	**Management Trigger**	**Corrective Action**
	Likelihood	**Consequence**	**Risk Level**			**Likelihood**	**Consequence**	**Risk Level**			
Introduction or spread of phytophthora dieback to protectable areas from activities undertaken by Main Roads or its contractors	Possible	High	Medium	• Dieback survey and assessment every 5 years • Implement Main Roads standard management practices including: - Prior to arrival on site all plant, machinery, equipment and tools are to be cleaned; and - Prior to departure from the site all plant, machinery, equipment and tools are to be cleaned	• Baseline dieback assessment conducted in 2023 • Follow up dieback assessment every 5 years	Rare	High	Low	• Vehicle and / or on foot inspection by suitably experienced personnel to identify and record evidence of phytophthora (dieback) every 5 years with the next assessment in 2028	Evidence of dieback in areas mapped as protectable	• Investigate cause and raise incident report • Implement corrective actions including: - Review practicality of fencing design and structure - Undertake repair/modification of fence - Improve personnel training and education - Review monitoring frequency and method • Monitor outcomes of corrective actions

Objective: Counterbalance the significant residual impact to 24 ha of WRP habitat and 20.8 ha of Black Cockatoo habitat										
Event or Circumstance	**Risk Rating**			**Management approach and mitigation controls**	**Timing Frequency or Duration**	**Residual Risk Rating**			**Monitoring Activity**	**Management Trigger**	**Corrective Action**
	Likelihood	**Consequence**	**Risk Level**			**Likelihood**	**Consequence**	**Risk Level**			
Revegetation area is not trending towards completion criteria after 5 years	Likely	High	High	• **Seed/seedlings:** - Maintain existing seed collections - Order and propagate seedlings • **Site preparation** - Rip and furrow-line throughout open areas and / or hand augur. - Hand auger in amongst existing vegetation in preparation for planting • **Planting/Seeding** - Direct seeding of areas with low weed burden - Rip and furrow planting with seedlings - Infill planting	• **Seed/seedlings** - Initial seed collection completed by 2026 - Seedlings ordered annually based on monitoring results • **Site preparation** - Initial site preparation works will be completed in 2026 then ongoing to meet completion criteria. • **Planting/seeding** - Initial planting will begin in winter 2027 with infill planting undertaken based on recommendations from monitoring	Unlikely	High	Medium	• Floristic quadrat monitoring and visual inspection every three years beginning in 2028	• Fewer than 6 native understorey per 10 x 10m quadrat or 4 overstorey species per 20 x 20m • Weed cover negatively impacting revegetation of Black Cockatoo and WRP habitat	• Implement corrective actions including: - Undertake infill planting based on monitoring data - Undertake additional weed control based on monitoring data. - Undertake review of the effectiveness of other factors including but not limited to herbivore control, fencing, public access, fire risk, - Improve personnel training and education - Review monitoring frequency and method • Monitor outcomes of corrective actions

Objective: Counterbalance the significant residual impact to 24 ha of WRP habitat and 20.8 ha of Black Cockatoo habitat										
Event or Circumstance	**Risk Rating**			**Management approach and mitigation controls**	**Timing Frequency or Duration**	**Residual Risk Rating**			**Monitoring Activity**	**Management Trigger**	**Corrective Action**
	Likelihood	**Consequence**	**Risk Level**			**Likelihood**	**Consequence**	**Risk Level**			
Tenure or funding is not secure	Possible	Major	High	• Lots 200 and 201 are located on Crown land that is managed by DBCA • MoU established with DBCA • Funding provided for management actions	• Land tenure provides in perpetuity protection and maintenance of ecological benefits beyond the life of the approval • MoU to be established by July 2026	Unlikely	Minor	Low	• Assessment of whether MoU in place by specified date • Assessment of management funding resources	MoU not in place by July 2026	• Implement corrective actions including: - Request meeting with relevant DBCA personnel in order to expediate process - If required escalate up to Directors within Main Roads to work with DBCA in establishing MoU • Monitor outcomes of corrective actions
Incident or non-compliance with commitments made in this Plan	Possible	Moderate	Medium	• Follow management actions specified in this Plan • Notify Department in writing of incident or non-compliance • Undertake Audit of compliance with Plan	• Notify Department as soon as practicable, no later than 2 business days of becoming aware of the incident or non-compliance • Annual compliance audit	Unlikely	Moderate	Low	• Monitoring specified for all activities • Annual audit conducted to ensure management actions have been implemented	Incident or non-compliance recorded	• Investigate cause and raise incident report • Inform Department in writing. • Implement corrective actions as specified in this Plan • Monitor outcomes of corrective actions

3.8 Monitoring

Monitoring will be conducted at the WBR Offset Area to enable early detection of changes that could lead to trigger values being reached and the measurement of progress towards completion criteria. Main Roads will monitor all management and rehabilitation actions undertaken as outlined in Table 3-6 for the 20 years required by approval conditions.

For monitoring purposes, year 0 for the WBR Offset Area is considered to be 2023.

Monitoring will comprise assessment of data collected from drive/walking meander surveys (including pest animal survey) and quadrats, as described below.

Drive/walking meander

Drive boundary and internal tracks and traverse the offset area on foot to check fences, firebreaks and opportunistically survey for evidence of pest animals, herbivore damage and weed invasion. Inspections have beginning in 2025 and will be undertaken annually.

Quadrats

One quadrat (10 m x 10 m) will be placed randomly in the revegetation area and will be assessed every three years beginning 2028 (year 5) by a suitably qualified expert which may include Main Roads personnel or contractors.

The 10 x10 m quadrat will be used to assess:

- species present, including weeds
- average native understorey species richness (No.)
- average native understorey species density (per hectare)
- average native understorey stems per hectare
- average bare ground cover by area (%)
- WONS and declared weed presence/absence
- evidence of herbivore grazing impact.

For the purposes of assessing tree species richness and tree density, the quadrat will be expanded to 20 m x 20 m. The number and richness of trees species within this expanded quadrat will be recorded to provide an indication of tree cover across the site.

Black Cockatoo Habitat Assessment.

Black Cockatoo foraging habitat assessment and vegetation condition assessments will be undertaken in years 8 and 17 to align with floristic quadrat monitoring in the revegetation area. These assessments will provide a measure of whether management measures have been successful in preventing degradation or improving vegetation and habitat condition within the site.

The monitoring program is outlined in Table 3-6.

Table 3-6. WBR Offset Area monitoring program

Monitoring Activity	Parameters Measured	Methodology	Location	Timing, Frequency or Duration
Fencing and signage	Presence and condition of fencing and signage in line with specifications	Vehicle and / or on foot inspection of fencing and signage by suitably experienced personnel to determine effectiveness and identify any maintenance requirements	Boundary of WBR Offset Area	Initial inspection completed in 2025 and will continue annually
Firebreaks	Condition of firebreaks and / build up of flammable material on firebreaks	Vehicle and / or on foot inspection of firebreaks by suitably experienced personnel to determine effectiveness and identify any maintenance requirements	Boundary of WBR Offset Area	Initial inspection completed in 2025 and will continue annually
Drainage	Inspect drainage controls are operating effectively	Vehicle and / or on foot inspection to determine effectiveness and identify maintenance requirements	All culverts under access tracks	Drainage improvement works completed in April 2023 and inspection annually during winter.
Weeds	• Weeds present • WONS and declared weed presence/absence	Floristic quadrat and visual inspection.	One quadrat will be placed in 0.7 ha revegetation area. Visual inspections throughout remaining WBR Offset Area.	Quadrat monitoring every three years beginning in 2028. Baseline survey completed winter 2021 and visual inspections annually
Pest animals (rabbits, foxes)	Presence of pest animals (from scats or evidence of herbivore grazing or predation)	Vehicle and / or on foot inspection by suitably experienced personnel to identify and record evidence of pest animals	Within revegetation area and throughout WBR Offset Area.	Site inspections will be completed in 2026 between spring and autumn then annually thereafter.
Dieback	Evidence of dieback within protectable areas.	Dieback survey and assessment by suitably experienced personnel.	Mapped protectable areas.	Baseline survey completed in 2023 and every 5 years.
Rehabilitation of native vegetation	• Species present, including weeds • Average native species richness (No.) • Average native species density (per hectare) • Average native stems per hectare.	One floristic monitoring quadrat measuring 10 m x 10 m will be established. For the purposes of assessing tree species richness and tree density, the quadrat will be expanded to 20 m x 20 m to provide an indication of tree cover across the site.	Quadrat will be placed randomly in 0.7 ha revegetation area.	Quadrat monitoring every three years beginning in 2028

Monitoring Activity	Parameters Measured	Methodology	Location	Timing, Frequency or Duration
	• Average bare ground cover by area (%) • Average weed coverage by area (%) • WONS and declared weed presence/absence • Evidence of herbivore grazing impact.			
Black Cockatoo Habitat Assessment	• Foraging habitat quality. • Vegetation condition.	• In accordance with Referral guideline for 3 WA threatened Black Cockatoo species (DAWE, 2022) • Keighery vegetation condition scale (EPA, 2016)	WBR Offset Area	Between August and October in year 8 and 17.

4 STATE FOREST NO. 2 OFFSET AREA

This chapter describes the SF No. 2 Offset Area. The following sections identify:

- The offset being proposed (Section 4.1)
- The environmental attributes of the offset (Section 4.2)
- The protection mechanism for the offset (Section 4.4)
- Management and / or rehabilitation actions, including objectives, targets, completion criteria, (Section 4.6)
- Risk management (Section 4.7).
- Monitoring (Section 4.8)

4.1 Identification of offset

The SF No. 2 Offset Area comprises the proposed revegetation, rehabilitation and management of 8.78 ha representing the Tuart Woodlands TEC (inclusive of 7.4 ha of WRP habitat) within a degraded portion of SF No. 2 which is located east of the Busselton town centre, and is the focus of an on-going DBCA managed revegetation strategy (Figure 3). The site is immediately adjacent to the Project area and within the Swan Coastal Plain IBRA sub-region.

4.1.1 WRP and Black Cockatoo habitat creation

Main Roads currently has several on-going revegetation projects underway within SF No. 2 as environmental offset commitments for other road projects. These offset sites have been or are being revegetated in order to create WRP habitat, Black Cockatoo habitat and Tuart Woodlands TEC. The SF No. 2 Offset Area under this Plan forms a portion of a larger revegetation site within SF No. 2 which is referred to as Site 3, so as to differentiate from other nearby offset revegetation sites within SF No. 2.

4.1.2 Tuart Woodlands TEC restoration

The SF No. 2 Offset Area is located within an area previously planted to pines that would originally have supported Tuart Woodlands TEC. In amongst the historic plantation, scattered Tuart trees remain. The approved conservation advice (TSSC, 2019) notes that areas where plantations have been removed are high priority sites for restoration.

Main Roads intends to restore Tuart Woodlands TEC at the SF No. 2 Offset Area to increase the overall extent of the TEC, and to improve the long term viability of the TEC occurrences within the adjoining Tuart Forest National Park (TFNP). Established Tuart Woodlands will meet the key diagnostic characteristics of the Tuart Woodlands TEC which will form the framework for the revegetation effort.

To achieve this outcome, Main Roads will determine the appropriate planting density of Tuart trees in consultation with DBCA. Species proven to be successful in rehabilitation will be used, with seed/planting material sourced locally. Main Roads has successfully (although unintentionally) recreated Tuart Woodlands TEC in the past as part of the rehabilitation of the Bussell Highway road reserve between Capel and the Sabina River.

The proposed offset is congruent with similar environmental offsets within SF No. 2 negotiated by Main Roads with DBCA, DWER and DCCEEW for other road projects. The restoration of Tuart Woodlands TEC will also provide habitat for WRP and Black Cockatoos.

At the SF No. 2 Offset Area, Main Roads will rehabilitate and revegetate:

- 7.4 ha of WRP habitat that contains understorey and midstorey vegetation comprising Peppermint (*Agonis flexuosa*) and other native species, and also contains connected canopy habitat formed by native species
- 8.78 ha of Tuart Woodlands TEC of at least a 'moderate' quality as defined in Table 2 of the Tuart Woodlands TEC approved conservation advice (TSSC, 2019).

4.2 Offset Outcomes

The SF No. 2 Offset Area provided 4.60 % and 100.11 % of the offset required for impacts to WRP and the Tuart TEC, respectively. The offset calculator inputs for the property for both WRP and the Tuart TEC is shown in Table 4-1.

Table 4-1. Offset Calculator Inputs for SF No. 2 for WRP and Tuart TEC

Attribute	Agreed Values for WRP	Agreed Values for Tuart TEC
Starting Amount	7.4	8.78
Start quality	3	1
Future quality without offset	3	1
Future quality with offset	6	6
Risk of loss without offset (%)	0	0
Risk of loss with offset (%)	0	0
Confidence in result (%) averted loss	100	100
Confidence in result (%) habitat quality	80	80
% of Offset Impact	4.60%	100.11%

The value of the property as an offset is entirely derived from improving the quality of the habitat/community.

As such, the on ground management actions will be greater than that at the WBR Offset Area, as the offset proposed will improve the habitat / community quality from a score of three to a score of six for WRP and from a score of one to a score of six for the Tuart TEC.

4.3 Environmental attributes of offset area

The condition and environmental attributes of the site comprising the SF No. 2 Offset Area (Site 3) are described below. In addition to existing values the 8.78 ha of revegetation will be undertaken at the SF. No 2 Offset Area to provide:

- 8.78 ha of Tuart Woodlands TEC vegetation
- 7.4 ha of habitat for WRP.

Site 3 comprises a degraded portion of SF No. 2 and is located approximately 7 km east of the Busselton town centre. The offset portion of Site 3 is a 10 ha area in total (including a buffer for

maintenance access tracks and firebreaks). It is bounded by the Tuart Forest National Park (TFNP) to the north, Abba River to the east, Bussell Hwy to the south and degraded areas to the west that offset impacts associated with the State approval for the Project. Site 3 is located within the Spearwood Dune landform system.

The site previously supported plantation timber (Pinus spp.) that has recently been harvested with the stumps and pine debris removed and burnt on-site. There are scattered Tuart and Peppermint as well as some *Corymbia calophylla* (Marri), and *Eucalyptus marginata* (Jarrah) trees throughout the site. The site vegetation was initially assessed by Main Roads from a site reconnaissance survey and review of aerial photography, and was considered to be Degraded to Completely degraded in condition (EPA, 2016). The primary degrading factors are weed infestation (primarily Arum lily and Bridal creeper under existing canopy and pasture grasses in bare areas) and grazing pressure (from rabbits and macropods) which together impede natural regeneration.

4.3.1 Flora and Vegetation Survey

Ecoedge (2022) undertook a reconnaissance flora and vegetation survey of the entirety of Site 3 (total area of 58.6 ha) between 9 October 2021 and 20 October 2021 in accordance with Environmental Protection Authority (EPA) Technical Guidance (EPA 2016). Information on species present and vegetation structure was collected at five relevés within the portion of Site 3 allocated to this Plan, and vegetation condition was recorded at 15 locations. Vegetation units were mapped using the relevé information and recent aerial photography.

A total of 78 taxa were recorded across the entirety of Site 3. Thirty-seven of these species were native and 41 were weeds. No significant flora was recorded during the spring survey, including those species protected under both the State BC Act and EPBC Act.

One declared pest plant and WONS, **Asparagus asparagoides* (Bridal Creeper) was recorded in three locations within the within the portion of Site 3 allocated to this Plan. This species presents a threat to both the remnant vegetation and revegetation efforts.

Two sub-units of the same vegetation unit A were identified within the offset portion of Site 3 (i.e. A1 and A2). Unit A2 consisted of Degraded occurrences of vegetation unit A1. Descriptions are provided as follows:

- Vegetation unit A1. *Eucalyptus gomphocephala* tall woodland over *Agonis flexuosa* low open woodland over *Hibbertia cuneiformis* isolated tall/medium shrubs over **Arctotheca calendula*, *Daucus glochidiatus*, *Dichopogon capillipes*, *Hyalosperma cotula*, **Hypochaeris glabra*, *Sowerbaea laxiflora*, **Trifolium campestre*, **Zantedeschia aethiopica* forbland and **Bromus hordeaceus, *Ehrharta longiflora* and *Microlaena stipoides* open grassland on brown sandy-loam.

- Vegetation unit A2: *Eucalyptus gomphocephala* and **Pinus pinaster* tall woodland over isolated *Hibbertia cuneiformis*, *Macrozamia riedlei* shrubs over **Arctotheca calendula, Hyalosperma cotula*, **Hypochaeris glabra*, **Trifolium campestre*, **Zantedeschia aethiopica* forbland and **Bromus hordeaceus*, **Ehrharta longiflora* open grassland on brown sandy loam.

The majority of the offset area consisted of vegetation unit A2 being in Completely Degraded condition with a small portion consisting of vegetation unit A1 which was recorded in Good (approximately 0.65 ha) and Degraded condition (approximately 0.11 ha)

Although assessment of Tuart Woodlands TEC in accordance with Conservation Advice (TSSC 2019) was outside of the scope of the survey, Ecoedge (2022) noted that vegetation units A1 and A2 are contiguous with much larger areas of Tuart trees which are less than 60 m apart and therefore likely to meet the criteria for Tuart Woodlands TEC. No other TEC communities were identified or potentially identified within the survey.

4.3.2 Fauna Assessment

Although fauna surveys specifically for SF No. 2 Offset Area (Site 3) have not been undertaken, Main Roads has commissioned numerous fauna studies across the Ludlow State Forest and in close proximity to Site 3 including similar and contiguous vegetation. These surveys which are summarised below have been previously provided to DCCEEW.

The Ludlow State Forest is known to be a stronghold for WRP as evidenced in reports and information previously provided to DCCEEW, including the Regional Survey conducted by Biota (Biota, 2020a). Accordingly, there is confidence that the species will readily colonise newly created and / or enhanced habitat that is established within the SF No. 2 Offset Site.

SW Environmental (2022) were commissioned to undertake a desktop analysis of Black Cockatoo occurrence in the Ludlow State Forest including a literature review of Black Cockatoo occurrence on the Swan Coastal Plain, specifically in the Ludlow region. The study also included an assessment of know record data within 15 km of the Ludlow State Forest. The assessment concluded that offset sites within the Ludlow State Forest are located in vegetated areas consistent with mature tuart (*Eucalyptus gomphocephala*) forest, with occasional Marri (*Corymbia calophylla*), over a Peppermint (*Agonis flexuosa*) midstorey, with a degraded weedy understorey. These areas are known to be used by Black Cockatoos for foraging and breeding. All three Black Cockatoo species have been recorded locally, especially Carnaby's Black Cockatoo, and to a lesser extent Baudin's Cockatoo. Forest Red-tailed Black Cockatoo was also noted as being recorded within 5 km and as likely to be increasing in frequency locally.

Stream Environment and Water (2022) observed Black Cockatoo foraging evidence during their assessment of revegetation established at the Main Roads 'State Forest No. 2 Strategic Offset Site' (revegetated in 2017). As stated in their memorandum report, evidence of Black Cockatoo 's foraging was found in the form of chewed marri fruit. The chew marks suggested Baudin's Cockatoo and potentially Carnaby's Cockatoo. A small flock of up to ten white tailed Black Cockatoos was also observed flying over the site during Stream's field survey.

Main Roads conducted a further assessment for evidence of Forest Red-tailed Black Cockatoo foraging with the Ludlow State Forest in December 2022 (Main Roads Western Australia, 2022). During that assessment, chewed marri nuts were observed. The foraging evidence of marri was consistent with Forest Red-tail Black Cockatoo foraging signs as confirmed by Roy Teale, a Zoologist at Biota Environmental Sciences. A Forest Red-tail Black Cockatoo feather was also found.

In summary, all three Black Cockatoo species have been recorded locally to and within the Ludlow State Forest. It is therefore reasonable to expect that the species will utilise the newly created habitat once it is established.

4.3.3 Fire History

Ecoedge (2022) noted that the site had been previously disturbed historically through livestock and kangaroo grazing and through pine planting and logging activities however no mention historic fire evidence was recorded. A search through historical fire records for the site indicate that the site was last burnt following a prescribed cell treatment burn in 1970 (DBCA 2025). More recently DBCA burnt pine debris following pine removal in 2022 in order to create ash beds to promote Tuart growth.

4.4 Protection mechanism and management contribution

DBCA is the primary management agency for flora and fauna in Western Australia, with responsibilities including the management of the State's conservation estate, such as national parks and nature reserves. The SF No. 2 Offset Area is located on Crown land managed by DBCA under the *Conservation and Land Management Act 1984*, and in accordance with the TFNPMP (DPaW 2014). Accordingly, the site has long-term tenure protection and is considered suitable for use as an environmental offset.

DBCA has advised that the SF No. 2 Offset Area is available for use by Main Roads as an offset for the Project, as detailed in Appendix C. Main Roads will be responsible for the implementation of revegetation works, ongoing monitoring and maintenance, and reporting in accordance with EPBC 2020/8800, beginning in 2025 and continuing for a maximum period of 20 years, or until the agreed completion criteria are met.

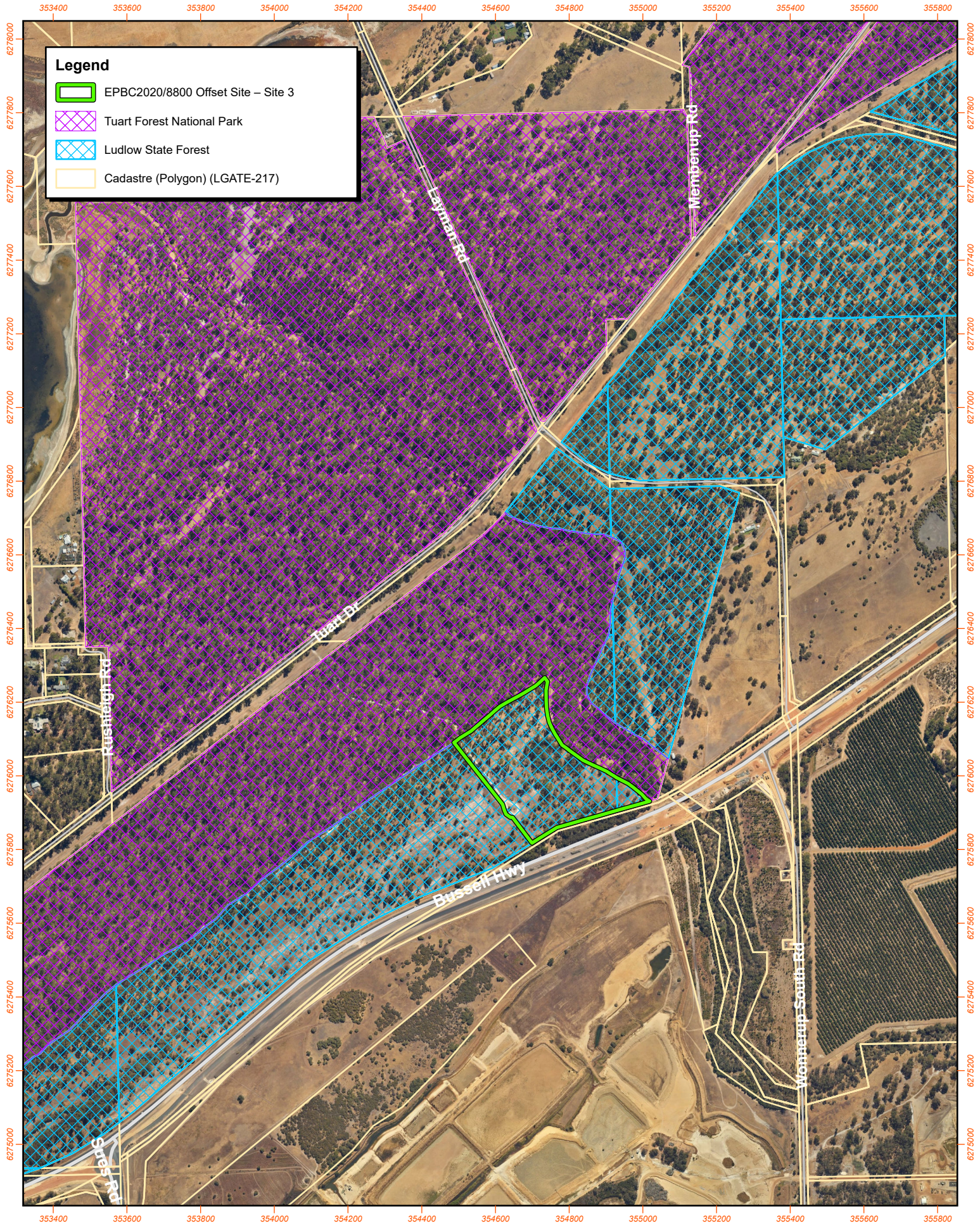
A MoU between Main Roads and DBCA is currently being prepared and is expected to be finalised by July 2026. The MoU will outline:

- The long-term management requirements for the SF No. 2 Offset Area;
- The provision of funding by Main Roads for ongoing management costs; and
- The terms for handover of the site to DBCA following completion of offset obligations.

Following handover, DBCA will assume ongoing management of the site in line with the objectives of the TFNPMP, specifically those for Ecosystem Management Zone 2b (FMP ID 124). These objectives include:

- Protecting and enhancing the eastern wetland/tall tuart community transition zone;
- Increasing habitat for fauna such as the western ringtail possum and brushtail possum;
- Enhancing the site's resilience to disturbance and threatening processes; and
- Protecting the proposed Busselton Yate Threatened Ecological Community (TEC).

Revegetation works have already begun in collaboration with, and under agreement from DBCA. Main Roads commits to ensuring that the MoU is executed by July 2026, and will update this Plan if required to reflect any additional commitments agreed between DBCA and Main Roads. Upon handover, DBCA will be obligated to uphold the conditions of the MoU and the management objectives of the TFNPMP, in accordance with the *Conservation and Land Management Act 1984*. It is noted that protection of the Busselton Yate TEC is not relevant to the SF. No 2 Offset Area (Site 3).



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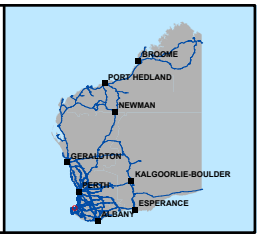
Coordinate System: GDA2020 MGA Zone 50
Scale: 1:13,000 @ A4
Created Date: 27/03/2025
Author: C11025

0 250 500
Meters

Bussell Hwy Stage 2 - Hutton to Sabina

Figure 3. State Forest No. 2 Offset Area and Surrounding DBCA Land



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4.5 Management approach

Management of the the SF No. 2 Offset Area (Site 3) is based on the approach outlined in Table 4-2.

Table 4-2. The SF No. 2 Offset Area management approach

Management aspect	Description	Defined in
Objective	Aim of the Offset Area	Table 4-3
Target	Specific goal identified for the Offset Area	
Completion criteria	Measurable outcomes identified for the Offset Area	
Management actions	Actions to be taken to achieve stated objective, targets and completion criteria, including timing	Section 4.6 and 4.7
Monitoring program	Assessment of progress towards achievement of objective, targets or completion criteria	Sections 4.6, 4.7 and 5
Performance indicator	Variable that allows for measurable assessment of progress towards achievement of objective, targets or completion criteria	
Trigger value	Measurable event in any assessed parameter that indicates achievement of the objective, targets or completion criteria may be at risk	
Corrective actions	Action(s) to be taken in response to a trigger value being reached	
Reporting	Documentation of progress towards achievement of the objective, targets or completion criteria and any non-compliances that have occurred	
Risk assessment	Consideration and appraisal of risks that may impede achievement of the objective, targets or completion criteria	Section 4.7
Risk management strategies	Actions to be taken to manage or mitigate identified risks	

4.6 Management and rehabilitation actions

4.6.1 Objectives, targets and completion criteria

Main Roads will rehabilitate, revegetate and manage a total of 8.78 ha at this site to provide habitat for WRP and to restore Tuart Woodlands TEC. The SF No. 2 Offset Area will be fenced to fauna fence standards to ensure protection of revegetation and emerging habitat. Ongoing site management for long term conservation (maximum 20 years) will include fencing and firebreak maintenance, weed control and pest animal control to maintain / improve habitat quality and vegetation condition. This approach aligns with that used by Main Roads for similar offset revegetation works in SF No. 2 and the region.

The proposed rehabilitation works are congruent with key objectives of the TFNP Management Plan (TFNPMP) (DPAW, 2014) including:

- Protect and enhance the eastern wetland / tall Tuart community transition zone.
- Protect and increase habitat for fauna that are highly represented in zones 5 and 6 (for example, WRP and Common Brushtail Possum).

- Enhance the resilience of this zone to disturbance and threatening processes.

Proposed management actions to achieve these objectives include "Re-establishing native vegetation in cleared areas, adapting management according to results of experimental trials."

Table 4-3 sets out the objective, target and completion criteria for the SF No. 2 Offset Area. The proposed completion criteria detailed in the table are consistent with existing criteria for other revegetation offset sites in the local area undertaken for Main Roads other projects.

Table 4-3. Objective, target and completion criteria for the SF No. 2 Offset Area

Objective	Target	Completion criteria
Counterbalance the significant residual impact to 24 ha of WRP habitat and 2.0 ha of Tuart Woodlands TEC	To rehabilitate and manage 8.78 ha of degraded Ludlow SF No.2 to create Tuart Woodlands TEC and 7.4 ha of WRP habitat	Rehabilitation of 8.78 ha of Tuart Woodlands TEC and 7.4 ha of WRP habitat completed. The offset site will meet the following completion criteria: • Access to revegetation areas is restricted • Firebreaks are in place and well maintained • WRP habitat consists of understorey and midstorey vegetation comprising Peppermint (*Agonis flexuosa*) and other native species • WRP habitat contains connected canopy habitat (across/between strata) formed by native species • Native species predominate understorey, midstorey and canopy vegetation • For Tuart Woodlands TEC vegetation, ≥50 % of all understorey vegetation cover is native OR there are at least 4 native understorey species per 10 m x 10 m monitoring quadrat (i.e. 'Moderate' condition) • Site management for long term conservation (maximum 20 years) will include fencing and firebreak maintenance, weed control and pest animal control to maintain / improve habitat quality and vegetation condition • Weed cover not impacting achievement of rehabilitation targets specified above.

4.6.2 Consistency with Conservation Advice and Recovery Plans

Condition 9(a)(ii) of the Commonwealth Approval Notice 2020/8800 requires revegetation outcomes to be consistent with *Approved Conservation Advice (incorporating listing advice) for the Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain ecological community* (DoEE, 2019). The objectives, targets and activities in this Plan relating to Tuart Woodlands TEC are consistent with the 'restore' priority conservation action listed in the *Approved Conservation Advice* (DoEE, 2019). The objectives, targets and activities in this Plan relating to WRP habitat are consistent with the objectives of the *Western Ringtail Possum (Pseudocheirus occidentalis) Recovery Plan* (DPAW, 2017) to mitigate threatening processes that are constraining the recovery of WRPs. A summary of consistency with the relevant guidance's and plans is presented in Table 4-4.

Table 4-4. Consistency of activities at the SF No. 2 Offset Area with relevant recovery plans

Objective and action themes from recovery plan / conservation advice	Activities undertaken within this Plan
WRP	
Threatening processes that are constraining the recovery of WRPs are mitigated	• Rehabilitation, revegetation and / or management of 7.4 ha of WRP habitat • Weed control and pest animal control • Control measures to mitigate unplanned bushfires
Tuart Woodlands TEC	
Re-vegetation and regeneration Control invasive species and diseases	• Creation of 8.78 ha of TEC vegetation • Weed control and pest animal control • Control measures to mitigate unplanned bushfires

4.6.3 Management and rehabilitation actions and timeframes

4.6.3.1 Management actions

The following management and rehabilitation actions will be undertaken as part of the SF No. 2 Offset Area establishment. An adaptive management approach will be taken based on on-going monitoring of the revegetation works and site specific lessons learned to achieve the completion criteria.

Fencing requirements. Access to the offset area revegetation site will be restricted through the installation of fencing. The fence will be constructed to fauna fence standards, and will be 1.5 m high with a 300 mm rabbit wire apron to reduce burrowing animals from entering the sites. A minimum of two fauna escape gates will be installed at Site 3. The aim of the fauna fence is to minimise further degradation of native vegetation and maximise success of revegetation efforts by limiting macropod (and rabbit) grazing pressure. The minimisation of grazing pressure will create favourable conditions for both revegetation and natural regeneration.

DBCA have requested that public access to the site is maintained. As such, the boundary fence will have gates enabling access following revegetation efforts and stabilisation of the site.

Fire management. Fire has the potential to have a significant negative impact on the revegetation works. Main Roads has installed 3.6 m wide gates for access to rehabilitation area to enable the entry of firefighting units. For a maximum period of 20 years, Main Roads will maintain a 3 m firebreak around the revegetation area. Firebreaks will be inspected and maintained annually to forementioned specifications to ensure build-up of flammable materials on firebreaks is not increasing fire risk.

Rubbish removal. Rubbish will be removed from the site to improve vegetation condition and improve revegetation success. Annual vehicle and foot inspections which begun in 2025 will be undertaken to identify any rubbish requiring removal from the site.

Weed control. Initial weed control begun in 2024 and will be ongoing in the SF No. Site 3 Offset Area where they are impacting the success of revegetation works. Further weed control is scheduled for 2026. Flora and vegetation monitoring is scheduled in accordance with Section 4.8 and will inform annual weed control, ensure completion criteria are met and WONS/declared weeds are controlled. If weeds predominate the vegetation to an extent that it is considered that they are impacting the success of revegetation works, weed control will be undertaken. Weed

management will be ongoing for a period of 20 years, or until such time as the completion criteria are met, whichever occurs first.

Pest control. Annual vehicle and foot inspection to identify and record evidence of pest animals will begin in 2026. Where on site observations indicate impacts to revegetation from rabbits or foxes, control measures such as baiting and / or trapping will be undertaken. Where required based on site observations, rabbit baiting using a combination of RHDV, Pindone or 1080 will be undertaken annually from spring through to late autumn. Where required based on site observations, fox baiting using 1080 will be undertaken annually during late winter through to autumn. Pest animal monitoring and control (based on site observations) will be ongoing for a period of 20 years.

Dieback management. Dieback surveys have not been conducted at this site as it is expected to be uninterpretable due to its very poor condition and general lack of indicator species. It is also noted that the site is situated on calcareous soils, and as such it is highly unlikely that *Phytophthora cinnamomi* is present. Main Roads standard management practices for dieback will be implemented during all management, maintenance and monitoring activities conducted onsite including:

- Prior to arrival on site all plant, machinery, equipment and tools are to be cleaned; and
- Prior to departure from the site all plant, machinery, equipment and tools are to be cleaned.

4.6.3.2 Rehabilitation actions

Activities associated with the on-ground management for rehabilitating the SF No. 2 Offset Area are set out below and in Table 4-5. These are directly linked to the stated completion criteria (see Section 4.6.1) to ensure that the completion criteria will be achieved.

Approach. The site preparation and revegetation methodology to be applied is the same as that applied in the past to other Main Roads revegetation sites, with minor variation dependant on site conditions. Aspects comprising this approach are outlined below.

Seed and material sourcing. Licenced seed collectors will be engaged to collect native seed over several years until sufficient seed is collected. Collected seed will be used for both propagation of seedings and for direct seeding in select areas. Vegetative material such as cuttings and material obtained by division will also be collected for species where this is a more effective method. Initial seed collection will be completed by 2026.

Seedling propagation. Collected seed and vegetative material will be provided to nurseries that meet the Nursery and Garden Industry Western Australia certification to ensure appropriate hygiene protocols are observed. Alternative nurseries will be considered as potential suppliers if the plants can be supplied to the required standards and conditions. Seedlings may also be sourced directly from commercial nurseries to provide additional flexibility in meeting supply needs. Seedlings will be ordered annually based on monitoring results and the plans for the upcoming planting season. Planting will begin in winter 2027.

Site preparation. The site was harvested of pine trees by DBCA in 2022. Pine debris was stockpiled and burnt in 2024 to create ash beds to promote the future growth of Tuarts.

Rip and furrow lines will be made throughout the sites to reduce soil compaction and improve air and water infiltration. Manual hand augering will be undertaken in areas where access is reduced

or where lower impact site works is deemed appropriate. Initial site preparation works will be completed in 2026 then ongoing to meet completion criteria. All rip and furrow preparation works will occur in winter when seasonal conditions are optimal and soil moisture is suitable for planting. Some thinning of Tuarts will be required in some areas and the approach to this task will be agreed with DBCA.

All planting areas will require routine maintenance for access. Informal tracks are to be established at approximately 30 m to 50 m intervals to enable efficient access. More permanent internal tracks will be required including suitable materials at gateways to enable fire access. Vehicle access tracks will also serve as firebreaks on the internal boundary fences.

Species selection. Species used in the revegetation have been selected in consultation with DBCA based on the general site parameters and on:

- Species detailed in the Tuart Woodlands TEC approved conservation advice (TSSC, 2019)
- Species known provide foraging and potential denning habitat for WRP (DPAW, 2017)
- Additional advice from DBCA Parks and Wildlife Service (A. Webb, pers comm).

The revegetation will include a variety of species within each structural layer to provide native vegetation cover. The indicative revegetation species list, which is a sub-set of the DBCA-approved list prepared based on species generally expected to be commercially available, is presented in Appendix F. A selection of species from this list will be used in the revegetation. Additional species from the broader DBCA-approved list will also be used in seed form where site conditions are conducive to direct seeding.

Species richness. As per completion criteria for Tuart Woodlands TEC vegetation, ≥50% of all understorey vegetation cover will be native OR there will be at least 4 native understorey species per 10 m x10 m monitoring quadrat (i.e. 'Moderate' condition). WRP habitat consists of understorey and midstorey vegetation comprising Peppermint (*Agonis flexuosa*) and other native species presented in Appendix F.

Seeding / seedlings. The SF No. 2 Offset Area contains a significant weed burden. The presence of weeds will limit the option to undertake direct seeding in some areas. Seedling planting and / or direct seeding will occur once the offset area is prepared (weed control, pest control, fencing). Seedlings will be planted with slow release native fertiliser tablets to offer suitable nutrients in the establishment phase. Initial planting will begin in 2027 and will be completed in winter 2031 (5 year revegetation program). Post 2031, infill planting will be undertaken based on recommendations from monitoring.

Planting density. Planting densities will be managed to maximise canopy connectivity and resource availability for WRP with a minimum of 3000 stems per hectare planted across all strata. In Tuart Woodlands TEC revegetation areas, Tuart canopy cover and understorey species cover or species richness will be established to align with requirements for Tuart Woodlands TEC as per the conservation advice (TSSC, 2019). Planting density will also aim to minimise bare ground (i.e. no more than 30% average bare ground cover across the revegetation area) and maximise the structural integrity and long-term viability of the established vegetation.

Completion of rehabilitation. The completion of rehabilitation will be evaluated against the completion criteria for the offset during floristic quadrat monitoring and visual inspection annually in years 1 to 3, and then three yearly thereafter. Although on ground works have begun on the site,

for monitoring purposes, year 0 for the SF No 2. Offset Area is considered to be 2027, which is when revegetation works is planned to begin. Rehabilitation activities will continue until the rehabilitation criteria are achieved.

4.7 Risk management

A risk assessment was undertaken consistent with the methodology described in the DCCEEW Environmental Management Plan Guidelines (2024). Each risk was given a rating in terms of likelihood and consequence using the criteria which were then combined using a risk matrix to generate an overall risk rating of low, medium, high or severe. These criteria are detailed in Appendix E.

Potential risks to the successful implementation of this offset and achievement of the objectives in Section 4.6.1 are set out along with management approach and mitigation controls for mitigating risks in Table 4-5. The risk assessment and mitigation strategy was undertaken based on information determined through biophysical surveys undertaken for the Project to date and on Main Roads experience in previous conservation and rehabilitation projects in the vicinity of the Project and more broadly.

Table 4-5. SF No. 2 Offset Area implementation risk and mitigation strategies

Objective: Counterbalance the significant residual impact to 24 ha of WRP habitat and 2.0 ha of Tuart Woodlands TEC										
Event or Circumstance	**Risk Rating**			**Management approach and mitigation controls**	**Timing Frequency or Duration**	**Residual Risk Rating**			**Monitoring Activity**	**Management Trigger**	**Corrective Action**
	Likelihood	**Consequence**	**Risk Level**			**Likelihood**	**Consequence**	**Risk Level**			
Fire impact on revegetation works	Possible	High	Medium	• Maintain 3.0 m firebreaks to remove flammable material • Maintain 3.6 m wide access gates for access of firefighting units. • Remove rubbish if present	• Annually	Unlikely	High	Medium	• Annual vehicle and / or on foot inspection to determine effectiveness and identify maintenance requirements	• Firebreaks not to specified standard • Build up of flammable materials (i.e. rubbish, vegetation stockpiles)	• Investigate cause and raise incident report • Implement corrective actions including: - Review practicality of firebreak network - Undertake firebreak modification and maintenance. - Improve personnel training and education - Review monitoring frequency and method • Monitor outcomes of corrective actions
Weeds are impacting success of revegetation. WONS and declared pests persist	Highly likely	High	High	• Conduct baseline weed survey • Conduct initial weed control • Ongoing weed control program	• Baseline survey and initial weed control completed in 2024 • Additional weed control planned for 2026 • Weed control undertaken thereafter as required based on site observations	Unlikely	High	Medium	• Floristic quadrat and visual inspection annually in years 1 to 3 and three yearly thereafter.	• Weed cover negatively impacting establishment of WRP habitat and Tuart TEC	• Investigate cause • Implement corrective actions including: - Review effectiveness of weed control works - Undertake necessary works to improve weed control. - Review monitoring frequency and method • Monitor outcomes of corrective actions

Objective: Counterbalance the significant residual impact to 24 ha of WRP habitat and 2.0 ha of Tuart Woodlands TEC										
Event or Circumstance	**Risk Rating**			**Management approach and mitigation controls**	**Timing Frequency or Duration**	**Residual Risk Rating**			**Monitoring Activity**	**Management Trigger**	**Corrective Action**
	Likelihood	**Consequence**	**Risk Level**			**Likelihood**	**Consequence**	**Risk Level**			
Evidence of herbivore grazing and predation by pest animals.	Likely	High	High	• Install fence to fauna fence standards as specified including fauna escape public access gates • Fox control using 1080 baiting • RHDV, Pindone or 1080	• Fence installed in winter 2024 • Fox and rabbit control annually, if required, based on site observation of fox and rabbit presence. Site inspections will be completed in 2026 between spring and autumn then annually thereafter	Possible	High	Medium	• Annual vehicle and / or on foot inspection by suitably experienced personnel to identify and record evidence of pest animals and breaches or maintenance issues with fencing	• Presence of pest animals that negatively impact WRP habitat or Tuart TEC	• Investigate cause • Implement corrective actions including: - Review practicality of fencing design and structure - Undertake repair/modification of fence - Improve personnel training and education - Review monitoring frequency and method - Adjust baiting /trapping program if required • Monitor outcomes of corrective actions

Revegetation area is not trending towards completion criteria after 5 years	Likely	High	High	• **Seed/seedlings:** - Maintain existing seed collections - Order and propagate seedlings • **Site preparation** - Harvest and remove pine trees - Rip and furrow-line throughout open areas and / or hand augur - Hand auger in amongst existing vegetation in preparation for planting - Informal tracks established at 30-50 m intervals to enable efficient access in planting areas • **Planting/Seeding** - Direct seeding of areas with low weed burden - Rip and furrow planting with seedlings - Infill planting	• **Seed/seedlings** - Initial seed collection completed by 2026 - Seedlings ordered annually based on monitoring results • **Site preparation** - Pines harvested by DBCA in 2022 and pine debris burnt in 2024 to create ash beds for promote Tuart growth - Initial site preparation works will be completed in 2026 then ongoing to meet completion criteria - Informal tracks established when required in planting areas • **Planting/seeding** - Initial planting will be completed in winter 2027 and be completed in winter 2031 (5 year revegetation program) - Post 2031, infill planting will be undertaken based on monitoring recommendations	Unlikely	High	Medium	• Floristic quadrat and visual inspection annually in years 1 to 3, and then three yearly thereafter.	• Less than 50% of understory vegetation species are native OR there are fewer than 4 native understory species per 10 x10 m quadrat • Weed cover negatively impacting establishment of WRP habitat and Tuart TEC	• Implement corrective actions including: - Undertake infill planting based on monitoring data - Undertake additional weed control based on monitoring data. - Undertake review of the effectiveness of other factors including but not limited to herbivore control, fencing, public access, fire risk, - Improve personnel training and education - Review monitoring frequency and method • Monitor outcomes of corrective actions

Objective: Counterbalance the significant residual impact to 24 ha of WRP habitat and 2.0 ha of Tuart Woodlands TEC										
Event or Circumstance	**Risk Rating**			**Management approach and mitigation controls**	**Timing Frequency or Duration**	**Residual Risk Rating**			**Monitoring Activity**	**Management Trigger**	**Corrective Action**
	Likelihood	**Consequence**	**Risk Level**			**Likelihood**	**Consequence**	**Risk Level**			
Tenure or funding is not secure	Possible	Major	High	• SF No. 2 is located on Crown land that is managed by DBCA • MoU established with DBCA • Funding provided for management actions	• Land tenure provides in perpetuity protection and maintenance of ecological benefits beyond the life of the approval • MoU to be established by July 2026	Unlikely	Minor	Low	• Assessment whether MoU in place by specified data • Assessment of management funding resources	MoU not in place by July 2026	• Implement corrective actions including: - Request meeting with relevant DBCA personnel in order to expediate process. - If required escalate up to Directors within Main Roads to work with DBCA in establishing MoU. • Monitor outcomes of corrective actions
Incident or non-compliance with commitments made in this Plan	Possible	Moderate	Medium	• Follow management actions specified in this Plan • Notify Department in writing of incident or non-compliance • Undertake Audit of compliance with Plan	• Notify Department as soon as practicable, no later than 2 business days of becoming aware of the incident or non-compliance • Annual compliance audit	Unlikely	Moderate	Low	• Monitoring specified for all activities • Annual audit conducted to ensure management actions have been implemented	Incident or non-compliance recorded	• Investigate cause and raise incident report • Inform Department in writing • Implement corrective actions as specified in this Plan • Monitor outcomes of corrective actions

4.8 Monitoring

Main Roads will monitor the progress of the revegetation works in order to assess progress towards achieving the completion criteria.

Although on ground works have begun on the site, for monitoring purposes, year 0 for the SF No 2. Offset Area is considered to be 2027, which is when revegetation works will begin.

Monitoring will comprise assessment of aerial imagery, data collected from quadrats and photo points, as described below.

Drive/meander. To check fences, firebreaks and opportunistically survey for evidence of pest animals, herbivore damage and weed invasion. To be undertaken annually.

Aerial imagery. High resolution aerial imagery captured by aerial survey will be used to assess canopy cover, canopy connectivity and vegetation structure. Aerial imagery will be captured annually from 2027 through to 2029, then every three years thereafter.

Quadrats. Three monitoring quadrats measuring 10 m x 10 m will be established in the SF No. 2 Offset Area. The quadrats will be randomly located, ensuring representation across the rehabilitation area. Each quadrat shall be clearly marked with fence droppers or similar, and the corner of the quadrat GPS marked. Quadrats will be assessed in Years 1, 2 and 3, and three-yearly thereafter by a suitably qualified expert which may include Main Roads personnel or contractors.

The 10 m x 10 m quadrats will be used to assess:

- species present, including weeds
- average native understorey species richness (No.)
- average native understorey species density (per hectare)
- average native understorey stems per hectare
- average native species cover by area (%) in the understorey, midstorey and canopy vegetation
- average Peppermint (*Agonis flexuosa*) cover by area (%)
- connectivity of canopy across all strata
- average bare ground cover by area (%)
- average weed coverage by area (%) and potential impact on impact on revegetation and/or natural regeneration
- restored Tuart Woodlands TEC vegetation condition (which will also be assessed opportunistically during monitoring)
- evidence of herbivore grazing impact.

For the purposes of assessing tree species richness and tree density, the quadrats will be expanded to 20 m x 20 m. The number and richness of tree species within these expanded quadrats will be recorded to provide an indication of tree cover across the site.

Photopoints. Photopoints will be established at the northwest corner of each quadrat. Photos will be taken on the southeast/northwest axis (i.e. lining up with the southeast corner of the quadrat) facing away from the quadrat. Photopoint monitoring will be conducted annually in Years 1-3 after which time they will be assessed every three years beginning in 2028. The monitoring program is presented in Table 4-6.

Table 4-6. SF No. 2 Offset Area monitoring program

Monitoring Activity	Parameters Measured	Methodology	Location	Timing, Frequency or Duration
Fencing	Presence and condition of fencing in line with specifications	Vehicle and / or on foot inspection of fencing by suitably experienced personnel to determine effectiveness and identify any maintenance requirements	Boundary of Site 3	Completed in 2025 and then annually thereafter.
Firebreaks	Condition of firebreaks and / build up of flammable material on firebreaks	Vehicle and / or on foot inspection of firebreaks by suitably experienced personnel to determine effectiveness and identify any maintenance requirements	Boundary of Site 3	Completed in 2025 and then annually thereafter.
Weeds	• Average weed cover by area averaged across quadrats and impact on revegetation and/or natural regeneration	Floristic quadrat and visual inspection	Three monitoring quadrats measuring 10 m x 10 m will be established in the Site 3 Offset Area. Visual inspections throughout remaining revegetation area.	Quadrat monitoring in years 1, 2 and 3, and three-yearly thereafter. Baseline flora and vegetation survey completed spring 2021. Initial weed control was undertaken in 2024 and control/inspections will be undertaken annually thereafter as necessary to control weeds.
Pest animals (rabbits, foxes)	Presence of pest animals (from recent [<2 months old] scats or evidence of herbivore grazing or predation)	Vehicle and / or on foot inspection by suitably experienced personnel to identify and record evidence of pest animals	Throughout Site 3 Offset Area	Site inspections will be completed in 2026 between spring and autumn then annually thereafter
Rehabilitation of native vegetation	• species present, including weeds • average native understorey species richness (No.) • average native understorey species density (per hectare) • average native understorey stems per hectare • average native species cover by area (%) in the understorey, midstorey and canopy vegetation	• Three floristic monitoring quadrats measuring 10 m x 10 m will be established. For the purposes of assessing tree species richness and tree density, the quadrats will be expanded to 20 m x 20 m to provide an indication of tree cover across the site. • Aerial or drone footage (3D imagery)	• The quadrats will be randomly located, ensuring representation across the rehabilitation area • Aerial imagery over the whole site	• Quadrat monitoring in years 1, 2 and 3, and three-yearly thereafter • Aerial imagery annually for three years with first survey completed by year 0 (baseline) then 3-yearly until completion criteria is met

Monitoring Activity	Parameters Measured	Methodology	Location	Timing, Frequency or Duration
	• average Peppermint (*Agonis flexuosa*) cover by area (%) • connectivity of canopy across all strata • average bare ground cover by area (%) • average weed coverage by area (%) and potential impact on impact on revegetation and/or natural regeneration • restored Tuart Woodlands TEC vegetation • evidence of herbivore grazing impact.			

•

5 REPORTING AND ACCOUNTABILITY

5.1 Roles and responsibilities

This Plan identifies the environmental management activities to be undertaken by Main Roads or its delegate in implementation of the offset Proposal. Main Roads acknowledges that the environmental management actions contained within this Plan are legal requirements to be met by Main Roads.

Main Roads' Director Environment and Heritage will maintain responsibility for implementation of the management actions specified in this Plan, on behalf of Main Roads Managing Director. Management actions will be undertaken by employees and / or contractors of Main Roads on behalf of the Managing Director.

Where management actions are undertaken by employees and / or contractors of Main Roads, these will be communicated and documented to the relevant personnel through relevant environmental training and contractual arrangements (refer to Section 5.3).

5.2 Reporting

Main Roads will report to DCCEEW on the implementation of this Plan as part of annual compliance reporting under condition 17 of EPBC Act approval for EPBC 2020/8800.

Where compliance audits undertaken by Main Roads identify that the environmental management actions and / or the environmental objectives are not being achieved (non-compliance or an environmental incident), Main Roads will notify DCCEEW as soon as practicable and no later than within two (2) business days of the non-compliance being known. Consistent with standard document control procedures, Main Roads will maintain copies of all reports submitted to DCCEEW.

The reporting requirements for this Plan are identified in Table 5-1.

Table 5-1. Reporting requirements

Aspect	Report from	Report to	Reporting frequency
Implementation of Offset Management Plan	Director Environment and Heritage	DCCEEW	Annually (as part of annual compliance reporting)
Non-compliance with Offset Management Plan or Environmental Incident	Director Environment and Heritage	DCCEEW	As soon as reasonably practicable but not more than two (2) business days

The format and content of annual reporting will be in accordance with the requirements of condition 17 of EPBC Act approval for EPBC 2020/8800. The format and content of reporting of a non-compliance event or an environmental incident will be subject to the nature of the non-compliance / incident and will include all requested information from DCCEEW. In consideration of this, specific templates for reporting these are not provided as part of this Plan.

5.3 Environmental training

Main Roads will ensure that all personnel undertaking works for the Proposal, including visitors, have undertaken a site induction training program, or are escorted to the site. Where it is identified

that personnel have not undertaken the works in accordance with the environmental requirements for the Proposal, Main Roads will require such personnel to undertake a specific site induction.

5.3.1 Emergency contacts and procedures

Emergency contact details will be signposted at appropriate locations within the area of the Proposal, to enable immediate contact and response in the event of an emergency / environmental incident observed by Main Roads personnel, contractors or the public. Emergency response procedures will be followed in the event of an emergency / environmental incident. Main Roads general and emergency contacts for the Proposal are provided in Table 5-2.

Table 5-2. Emergency contact details

Aspect	Contact Details
General contact	• Main Roads Head Office Address: Don Aitken Centre, Waterloo Crescent, EAST PERTH WA 6004 Mail: PO Box 6202, EAST PERTH WA 6002 Email: enquiries@mainroads.wa.gov.au Phone: 138 138 • Main Roads South West Region Address: Robertson Drive, BUNBURY WA 6231 Mail: PO Box 5010, EAST PERTH WA 6231 Email: enquiries@mainroads.wa.gov.au Phone: 138 138 / (08) 9724 5600
Emergency contact	• Director Environment and Heritage, Main Roads Email: Martine.Scheltema@mainroads.wa.gov.au Phone: (08) 9323 4614 • Acting Director South West Region Email: bruce.walker@mainroads.wa.gov.au Phone: (08) 9724 5610

6 ADAPTIVE MANAGEMENT AND REVIEW

In accordance with condition 23 of EPBC Act approval EPBC 2020/8800, Main Roads may review and revise this Plan. Main Roads will also review and revise this Plan as and when directed by the Minster. The approved version of the Plan will continue to be implemented until directed otherwise.

6.1 Adaptive management

This Plan adopts an 'adaptive management' approach which seeks to embed a cycle of monitoring, reporting and implementing change, where required. Accordingly, it is intended that this Plan is intended to be dynamic and will be updated to reflect changes in the monitoring and management practices, subject to the results of the monitoring to identify that the environmental objectives are being achieved. This Plan may also be revised to address learnings from the implementation of corrective actions, if this occurs.

Corrective actions for each Offset Area are detailed in this Plan under the relevant subsections.

Adaptive management measures may also be applied where those measures are likely to provide a better environmental outcome or where the measures proposed within the plan will provide little to no benefit. For example, if monitoring was required in year five and a fire swept through the area in year four, monitoring would not be undertaken until such time that the monitoring is likely to provide useful information, e.g. two years following the fire event.

Deviations from the offset plan will be reported with the relevant Annual Compliance Report.

6.1.1 Unplanned Events

Where an unplanned event occurs that potentially impacts the progress of revegetation, such as flooding, fire, drought, etc, the timing of management triggers and targets will be adjusted accordingly.

For example, if in year 12, a major fire impacted the offset site, it may be appropriate to consider the rehabilitation progress has been pushed back by five years. Accordingly, following a two year recovery period, the site should then be assessed against the year nine criteria, rather than the fourteen year criteria. In this example, unless the final completion criteria has been met, this approach would then result in the offset site being actively managed, e.g. fencing and firebreak maintenance, weed control and pest animal control, until year 25 rather than year 20.

6.2 Environmental review

Main Roads will review this Plan every three years after its approval in order to consider:

- The management and monitoring actions
- Opportunities for an improvement in environmental performance (for example, changes to methodologies or timing)
- Identify a need to update this Plan to capture changes to the management and / or monitoring actions
- Identify any general need to update this Plan (for example, to capture new information on WRP knowledge or management).

Main Roads acknowledge that a revision to this Plan will trigger a need for additional approval by DCCEEW prior to implementing any changes to the specified management or monitoring actions.

The proposed Plan review schedule for the Proposal is identified in Table 6-1.

Table 6-1. Offset Management Plan review schedule

Timing	Trigger	Action
Every three years following approval of this Plan.	In Section 6.2 a commitment to review this Plan is made and scheduled to occur following each three year anniversary from approval of this Plan.	• Review of Offset Management Plan management and monitoring actions • Review of opportunities for an improvement in environmental performance • Revise Offset Management Plan (if appropriate) and seek DCCEEW approval of revised plan.
Unplanned event	Where an unplanned event occurs that potentially impacts the progress of revegetation, such as flooding, fire, drought, etc, the timing of management triggers and targets will be adjusted accordingly	
Based on monitoring	Where monitoring provides evidence that alternative management measures are likely to provide a better environmental outcome or where the measures proposed within the Plan will provide little to no benefit.	

6.3 Data management

Main Roads will maintain records on the implementation of this Plan in accordance with Main Roads corporate standard document control procedures.

Data will be provided to DCCEEW in accordance with condition 16 of EPBC Act approval for EPBC 2020/8800.

The retention of records held by Main Roads will be maintained and managed in accordance with the Western Australian *State Records Act 2000* (WA).

7 REFERENCES

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Harewood. (2020). *Fauna Habitat Assessment - Lot 201 West Boundary Road Manjimup.* Unpublished report prepared for Main Roads Western Australia.

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TSSC. (2019). *Approved Conservation Advice (incorporating listing advice) for the Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain ecological community.* Canberra, Australian Capital Territory: Threatened Species Scientific Committee .

Appendix	Title
Appendix A	Letters of support for Main Roads acquisition of Lot 200 and Lot 201 West Boundary Road
Appendix B	Evidence of acquisition of Lot 200 and Lot 201 as offset sites and acceptance by DBCA
Appendix C	Letter from DBCA confirming SF No.2 is available for Main Roads to utilise for offsets
Appendix D	WBR Offset Area Indicative Revegetation Species List
Appendix E	Risk Rating Criteria
Appendix F	SF No. 2 Offset Area Indicative Revegetation Species List

Appendix A: Letters of support for Main Roads acquisition of Lot 200 and Lot 201 West Boundary Road.

Department of **Biodiversity, Conservation and Attractions**

GOVERNMENT OF WESTERN AUSTRALIA

PARKS AND WILDLIFE SERVICE

We're working for Western Australia.

Your ref:
Our ref:
Enquiries: Luke Bentley
Phone: 9771 7943
Email: warren.admin@dbca.wa.gov.au

Neil McCarthy
Email: neil.mccarthy@mainroads.wa.gov.au

Dear Neil

LETTER OF SUPPORT FOR MAIN ROADS ACQUISITION OF LOT 200 WEST BOUNDARY ROAD

I refer to your email to Adrian Wayne on the 22 March 2021 regarding support for Main Roads for the purchase of Lot 200 West Boundary Road for inclusion into the Faunadale Nature Reserve.

The Department of Biodiversity, Conservation and Attractions (DBCA) Warren Region supports this proposal due to threatened species, including the western ring-tail possum, Baudin's cockatoo and the forest red-tailed cockatoo, occurring within Lot 200 and in the Faunadale Nature Reserve to the west. Both Lot 200 and 201 could be considered for management by DBCA and for inclusion into DBCA managed estate.

If you require further information, please contact Ian Wilson on 9771 7938 or email ian.wilson@dbca.wa.gov.au.

Yours sincerely

Luke Bentley
Regional Manager, Warren Region

24 March 2021

GOVERNMENT OF WESTERN AUSTRALIA

Department of **Biodiversity, Conservation and Attractions**

PARKS AND WILDLIFE SERVICE

Your ref:
Our ref:
Enquiries:
Phone: 97 717988
Email: warren.admin@dbca.wa.gov.au

Mr Neil McCarthy
neil.mccarthy@mainroads.wa.gov.au

To whom it may concern

Re: Letter of Support for Main Roads Acquisition of Lot 201 West Boundary Road

We refer to your email sent to Adrian Wayne on 25 August 2020 regarding support for Main Roads for the purchase of Lot 201 West Boundary Road and inclusion into the Faunadale Nature Reserve.

The Department of Biodiversity, Conservation and Attraction's (DBCA) supports this proposal due to the threatened species, eastern ring-tail possum, Baudin's and forest red-tail cockatoos, known to occur within the lot and within the adjoining Faunadale Nature Reserve to the west. Ideally, Lot 200, adjoining Lot 201 (both approx. 20.3ha) containing similar suitable habitat for these species, could also be considered for management as DBCA estate.

Should you require any further information please contact Ian Wilson, Regional Leader Conservation on 9771 7988.

Yours sincerely

P. Bamess

Peter Bamess
A/Regional Manager, Warren Region

11 September 2020

Warren Region
Locked Bag 2, Manjimup, Western Australia 6258
Phone: (08) 97 717 988 Email: warren.admin@dbca.wa.gov.au
dbca.wa.gov.au

Appendix B: Evidence of acquisition of Lot 200 and Lot 201 as offset sites and acceptance by DBCA.

Enquiries: N McCarthy
Our Ref: 05/2375
Your Ref: 2020/8800

26 June 2022

Acting Assistant Director
Assessment Approvals (Vic/Tas) and Post Approvals Branch
Department of Agriculture, Water and the Environment
GPO Box 858
CANBERRA ACT 2601

Dear Sir/Madam

BUSSELL HIGHWAY DUPLICATION – EPBC 2020/8800 CONDITIONS 4 AND 8

Main Roads obtained conditional approval (EPBC 2020/8800) for the Bussell Highway Duplication Project from the Department of Agriculture, Water and the Environment (DAWE) on 30 June 2021. Main Roads is experiencing challenges with complying with the timeframes specified within Conditions 4d and 8 of the approval for EPBC 2020/8800 and is seeking a variation to the timeframes.

Condition 4 - Offsets

Condition 4(a) to 4(d) require the acquisition and securing of environmental offset sites to compensate for the residual impacts of the project. Condition 4(d) requires Main Roads to "provide written evidence to the department that the offset sites identified in conditions 4a and 4b have been acquired and secured, within 12 months of the date of this approval; this written evidence must also identify the securing mechanism by which each offset site will be permanently protected for conservation."

Main Roads has progressed securing of the offset package with the following actions complete:

- The purchase of Lots 200 and 201 West Boundary Road, Manjimup completed (Attachment A - Certificates of Title attached).
- Secured in principle agreement for the Department of Biodiversity Conservation and Attractions (DBCA) to take over management responsibilities for Lots 200 and 201 (Attachment B).
- Obtained in principal agreement with DBCA for the offset site in State Forest 2 in the City of Busselton .

Main Roads is in negotiation with DBCA to finalise the offset package with the following actions still outstanding:

- Transfer the ownership of Lots 20 and 201 to DBCA in order to secure their permanent protection for conservation purposes within the conservation estate (Faunadale Nature Reserve).

- Finalise the agreement with DBCA for Main Roads funding and ongoing management of Lots 200 and 201.
- Finalise negotiations regarding the 8.78 ha offset area in State Forest No. 2 with DBCA.

Main Roads is unable to resolve these matters by the required 30 June 2022 deadline.

Condition 8 – Offset Management Plan

Condition 8 requires Main Roads to "submit for the Minister's approval, within 12 months of the date of this approval, an Offset Management Plan for each of the offset sites specified in conditions 4 and 5." Given the issues yet to be resolved with DBCA regarding condition 4(d) noted above, Main Roads is unable to provide DAWE with the required Offset Management Plan by the required date.

As Main Roads is not able to comply with condition 4(d) and 8 by the specified timeframe (30 June 2022) until DBCA's wider offset proposal is finalised, I hereby request a variation to Condition 4 and 8 and seek the timeframe requirements are extended from 12 months to 24 months (ie until 30 June 2023).

I trust that the above request is considered acceptable given the complexities in finalising the offset sites, however, if you require any further information regarding this request, please contact Neil McCarthy on 9724 5632.

Yours sincerely

Martine Scheltema
Manager Environment

Attachment A - Certificates of Title - Lots 200 and 201 West Boundary Road, Manjimup

WESTERN AUSTRALIA

REGISTER NUMBER	
200/DP409860	
DUPLICATE EDITION **2**	DATE DUPLICATE ISSUED **13/9/2021**

VOLUME **2940** FOLIO **144**

RECORD OF CERTIFICATE OF TITLE

UNDER THE TRANSFER OF LAND ACT 1893

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

BGRoberts

REGISTRAR OF TITLES

REGISTRAR OF TITLES WESTERN AUSTRALIA

LAND DESCRIPTION:

LOT 200 ON DEPOSITED PLAN 409860

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

COMMISSIONER OF MAIN ROADS OF WATERLOO CRESCENT EAST PERTH WA 6004
(T O842313) REGISTERED 18/8/2021

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. *N800724 NOTIFICATION CONTAINS FACTORS AFFECTING THE WITHIN LAND. LODGED 3/1/2018.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.
* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.
Lot as described in the land description may be a lot or location.

----------END OF CERTIFICATE OF TITLE----------

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND:	DP409860
PREVIOUS TITLE:	813-175
PROPERTY STREET ADDRESS:	NO STREET ADDRESS INFORMATION AVAILABLE.
LOCAL GOVERNMENT AUTHORITY:	SHIRE OF MANJIMUP
RESPONSIBLE AGENCY:	MAIN ROADS WESTERN AUSTRALIA

WESTERN AUSTRALIA

REGISTER NUMBER	
201/DP409860	
DUPLICATE EDITION **2**	DATE DUPLICATE ISSUED **2/2/2021**

VOLUME **2940** FOLIO **145**

RECORD OF CERTIFICATE OF TITLE

UNDER THE TRANSFER OF LAND ACT 1893

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

BGRoberts

REGISTRAR OF TITLES

REGISTRAR OF TITLES WESTERN AUSTRALIA

LAND DESCRIPTION:

LOT 201 ON DEPOSITED PLAN 409860

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

COMMISSIONER OF MAIN ROADS OF WATERLOO CRESCENT EAST PERTH WA 6004
(T O611662) REGISTERED 14/1/2021

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. *N800724 NOTIFICATION CONTAINS FACTORS AFFECTING THE WITHIN LAND. LODGED 3/1/2018.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.
* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.
Lot as described in the land description may be a lot or location.

----------END OF CERTIFICATE OF TITLE----------

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND:	DP409860
PREVIOUS TITLE:	813-175
PROPERTY STREET ADDRESS:	NO STREET ADDRESS INFORMATION AVAILABLE.
LOCAL GOVERNMENT AUTHORITY:	SHIRE OF MANJIMUP
RESPONSIBLE AGENCY:	MAIN ROADS WESTERN AUSTRALIA

Attachment B – Department of Biodiversity Conservation and Attraction in principle agreement for the management responsibilities of Lots 200 and 201.

Department of **Biodiversity, Conservation and Attractions**

GOVERNMENT OF WESTERN AUSTRALIA

PARKS AND WILDLIFE SERVICE

We're working for Western Australia.

Your ref:
Our ref: 2021/001404, 2021/001405
Enquiries: Anne Greig
Phone: 9219 9790
Email: anne.greig@dbca.wa.gov.au

Neil McCarthy
Senior Environmental Officer
Metropolitan and Southern Regions
Main Roads Western Australia

By email: neil.mccarthy@mainroads.wa.gov.au

Dear Neil

Acceptance of Lots 200 and 201 West Boundary Road, Manjimup for addition to Faunadale Nature Reserve
Lot 200 on Deposited Plan 409860 being the whole of the land contained in Certificate of Title 2940/144
Lot 201 on Deposited Plan 409860 being the whole of the land contained in Certificate of Title 2940/145

The Department of Biodiversity, Conservation and Attractions (the Department) understands that Main Roads Western Australia (Mains Roads) has purchased Lots 200 and 201 West Boundary Road, Manjimup in the Shire of Manjimup as an environmental offset for the Bussell Highway Duplication project.

Lots 200 and 201 were identified and assessed by the Department and recommended as suitable additions to the conservation estate. Independent surveys assessing the subject properties provided by Main Roads indicate suitable habitat for, and the presence of, western ringtail possum and black cockatoo species.

The Department confirms that Lots 200 and 201, after transfer from Main Roads, will be added to the conservation estate. It is proposed to amalgamate Lots 200 and 201 into Faunadale Nature Reserve (R15762) when the necessary support from stakeholders is obtained. Additionally, it is confirmed appropriate arrangements are to be made with Main Roads to establish an agreement for the providing of funding for ongoing costs associated with the management of Lots 200 and 201.

The Department confirms that the transfer of Lots 200 and 201 from Main Roads is a welcome and acceptable addition to the conservation estate.

If you have any queries, please contact Anne Greig on 9219 9190 or anne.greig@dbca.wa.gov.au or myself at 9219 8919 or ben.nickchen-long@dbca.wa.gov.au.

Yours sincerely,

Ben Nickchen-Long
Senior Land Acquisition Officer
Land Services Unit
Parks and Wildlife Services

1 July 2021

Appendix C: Letter from DBCA confirming State Forrest No.2 is available for Main Roads to utilise for offsets

GOVERNMENT OF WESTERN AUSTRALIA

Department of **Biodiversity, Conservation and Attractions**

PARKS AND WILDLIFE SERVICE

We're working for Western Australia.

Your ref: 12/7605
Our ref: Ludlow Tuart Forest
Enquiries: Regional Manager
Phone: 08 9725 4300
Email: bunbury@dbca.wa.gov.au

Mr Robert Barnsley
Director South West Operations
Main Roads Western Australia
PO Box 5010
Bunbury WA 6231

Dear Robert

Environmental Offset Sites – State Forest No. 2

Thank you for your letter dated 26 March 2021 regarding the Main Roads request for 250 hectares of degraded land within State Forest No. 2 (Ludlow Tuart Forest) to be made available for the purpose of revegetation works.

A number of potential areas have been identified for suitability and I am pleased to confirm that the Department of Biodiversity, Conservation and Attractions (DBCA) will be able to provide the 250 hectares requested by Main Roads to satisfy its environmental offset obligations under State and Commonwealth legislation.

As you would be aware, the Ludlow Tuart Forest holds an attraction to a number of interested community groups and passionate neighbouring landholders. As such, DBCA requests that the works are delivered in a manner that is inclusive of community groups and sensitive to the interests of the surrounding landholders.

Working closely on the delivery of many successful projects across the DBCA South West Region over a number of years, I look forward to the continuation of the current working relationship in the future.

Should you require any further information regarding this matter please contact the Regional Manager at the Bunbury office on 9725 4300.

Yours sincerely

Aminya Ennis
A/Regional Manager

14 April 2021

Regional and Fire Management Services Division
South West Region
PO Box 1693, Bunbury, Western Australia 6230
dbca.wa.gov.au

Appendix D: WBR Offset Area Indicative Revegetation Species List

Species	
Acacia mooreana	*Hibbertia amplexicaulis*
Acacia myrtifolia	*Hibbertia cuneiformis*
Acacia saligna	*Hovea trisperma*
Acacia sp.	*Lepidosperma effusum*
Acacia urophylla	*Leucopogon capitellatus*
Anigozanthos flavidus	*Leucopogon propinquus*
Banksia grandis	*Leucopogon sp. Southern Forests*
Banksia littoralis	*Leucopogon verticillatus*
Billardiera heterophylla	*Lomandra sp.*
Bossiaea linophylla	*Loxocarya cinerea*
Callistachys lanceolata	*Macrozamia riedlei*
Conostylis sp.	*Meeboldina roycei*
Corymbia calophylla	*Melaleuca incana*
Cyperus congestus	*Patersonia sp.*
Desmocladus fasciculatus	*Persoonia longifolia*
Desmocladus flexuosus	*Podocarpus drouynianus*
Eucalyptus diversicolor	*Pteridium esculentum*
Eucalyptus marginata	*Scaevola calliptera*
Eucalyptus patens	*Stypandra glauca*
Eucalyptus rudis	*Taxandria linearifolia*
Gahnia decomposita	*Taxandria parviceps*
Goodenia eatoniana	*Tremandra diffusa*
Hakea oleifolia	*Tremandra stelligera*
Hakea prostrata	*Xanthorrhoea brunonis*
Hardenbergia comptoniana	*Xanthorrhoea preissii*
Hibbertia sp.	

Appendix E: Risk Rating Criteria

Likelihood and consequence

Qualitative measure of likelihood (how likely is it that this event or circumstances will occur after management actions have been put in place or are being implemented)	
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
Qualitative measure of consequences (what will be the consequence or result if the issue does occur)	
Minor	Minor incident of environmental damage that can be reversed
Moderate	Isolated but substantial instances of environmental damage that could be reversed with intensive effort
High	Substantial instances of environmental damage that could be reversed with intensive efforts
Major	Major loss of environmental amenity and real danger of continuing
Critical	Severe widespread loss of environmental amenity and irrecoverable environmental damage

Risk Matrix

		Consequence				
		Minor	**Moderate**	**High**	**Major**	**Critical**
Likelihood	**Highly Likely**	**Medium**	**High**	**High**	**Severe**	**Severe**
	Likely	**Low**	**Medium**	**High**	**High**	**Severe**
	Possible	**Low**	**Medium**	**Medium**	**High**	**Severe**
	Unlikely	**Low**	**Low**	**Medium**	**High**	**High**
	Rare	**Low**	**Low**	**Low**	**Medium**	**High**

Appendix F: SF No. 2 Offset Area Indicative Revegetation Species List

Species	Dryland	Wetland - transition	Form	WRP forage
Acacia cyclops	X		Shrub	X
Acacia extensa	X		Shrub	
Acacia pulchella	X	X	Shrub	
Acacia saligna	X		Shrub / Tree	X
Acanthocarpus preissii	X		Shrub	
Adenanthos meisneri			Shrub	
Agonis flexuosa	X	X	Tree	X
Allocasuarina humilis	X	X	Shrub	
Alyxia buxifolia	X		Shrub	
Anigozanthos manglesii	X	X	Grass / herb	
Anthocercis littorea	X		Shrub	
Banksia attenuata	X		Tree	
Banksia grandis	X		Tree	
Banksia littoralis		X	Tree	
Baumea juncea		X	Rush	
Billardiera fusiformis	X		Shrub	
Bossiaea eriocarpa	X		Shrub	
Clematis linearifolia	X		Climber	
Conostylis aculeata	X		Grass	
Corymbia calophylla	X		Tree	X
Cyathochaeta avenacea			Grass	
Daviesia physodes	X	X	Shrub	
Dianella brevicaulis	X	X	Herb	
Diplolaena dampieri	X		Shrub	
Eucalyptus gomphocephala	X		Tree	
Eucalyptus marginata	X		Tree	X
Eucalyptus rudis			Tree	X
Ficinia nodosa	X		Rush	
Gahnia trifida			Rush	
Gastrolobium praemorsum			Shrub	
Gompholobium tomentosum	X		Shrub	
Haemodorum spicatum			Herb	
Hakea amplexicaulis	X		Shrub	
Hakea lissocarpha	X	X	Shrub	
Hakea prostrata	X		Shrub	
Hakea ruscifolia	X		Shrub	
Hakea varia		X	Shrub	
Hardenbergia comptoniana	X		Climber	X
Hemiandra pungens	X		Shrub	
Hibbertia cuneiformis	X	X	Shrub	
Hypocalymma angustifolium			Shrub	
Jacksonia furcellata	X	X	Shrub	

Species	Dryland	Wetland - transition	Form	WRP forage
Juncus pallidus			Rush	
Kennedia prostrata	X		Groundcover	
Kunzea glabrescens	X		Shrub	X
Kunzea micrantha		X	Shrub	
Lepidosperma gladiatum	X		Sedge	
Lepidosperma longitudinale			Sedge	
Lepidosperma pubisquameum			Sedge	
Logania vaginalis			Herb	
Melaleuca incana		X	Shrub	
Melaleuca preissiana		X	Tree	X
Melaleuca rhaphiophylla		X	Tree	
Melaleuca thymoides	X	X	Shrub	
Melaleuca viminea		X	Shrub	X
Orthrosanthus laxus	X	X	Grass / Herb	
Patersonia occidentalis	X		Grass / Herb	
Phyllanthus calycinus	X	X	Shrub	
Regelia ciliata		X	Shrub	
Rhagodia baccata	X		Shrub	
Solanum symonii	X		Shrub	
Spyridium globulosum	X		Shrub	
Trymalium ledifolium		X	Shrub	
Xanthorrhoea brunonis	X		Grass	
Xanthorrhoea preissii			Grass	
Xylomelum occidentale	X	X	Tree	