



## CLEARING PERMIT

*Granted under section 51E of the Environmental Protection Act 1986*

<b>Purpose Permit number:</b>	CPS 10803/1
<b>Permit Holder:</b>	Shire of Manjimup
<b>Duration of Permit:</b>	From 02/03/2026 to 02/03/2036

### ADVICE NOTE

In regard to condition 12 of this permit, 3.24 hectares of Lot 13916 on Deposited Plan 38045 (Reserve 54226), Crowea, will be attributed to the offset for this permit. The nominated 3.24 hectare area contains similar environmental values to the application area, including foraging habitat for Carnaby's cockatoo (*Zanda latirostris*), Baudin's cockatoo (*Zanda baudinii*), and forest red-tailed cockatoo (*Calyptorhynchus banksii naso*), in addition to other environmental values.

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

### PART I – CLEARING AUTHORISED

**1. Clearing authorised (purpose)**

The permit holder is authorised to clear *native vegetation* for the purpose of expanding a dam.

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

Lot 66 on Deposited Plan 140892, Northcliffe

**3. Clearing authorised**

The permit holder must not clear more than 0.89 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

**4. Period during which clearing is authorised**

The permit holder must not clear any *native vegetation* after 02/03/2031.

### PART II – MANAGEMENT CONDITIONS

**5. Avoid, minimise, and reduce impacts and extent of clearing**

In determining the *native vegetation* authorised to be cleared under this permit, the

permit holder must apply the following principles, set out in descending order of preference:

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

## 6. Weed and dieback management

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

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

## 7. Fauna management - directional clearing

The permit holder must:

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

## 8. Wind erosion management

The permit holder must commence works no later than three (3) months after undertaking the authorised clearing activities to reduce the potential for wind erosion.

## 9. Rehabilitation planting

- (a) Within 12 months of the commencement of *clearing* authorised under this permit and no later than 03 March 2032, the permit holder must undertake deliberate *planting* of at least 24 (twenty four) *black cockatoo foraging trees* within the area cross-hatched red in Figure 2 of Schedule 1.
- (b) In undertaking the *planting* required under condition 9(a) of this permit, the permit holder must:
  - (i) remove rubbish and rip the ground to remove soil compaction prior to *planting* within the area cross-hatched red in Figure 2 of Schedule 1;
  - (ii) ensure only *local provenance* seeds and propagating material are used;
  - (iii) undertake *planting* at an *optimal time*; and
  - (iv) undertake *weed* control activities and watering of *plantings* for at least three years post *planting*;
- (c) Within 24 months of *planting* the 24 *black cockatoo foraging trees* in accordance with condition 9(a) of this permit, the permit holder must engage an *environmental specialist* to make a determination as to whether the 24 *black cockatoo foraging trees* will survive;

- (d) If the determination made by the *environmental specialist* under condition 9(c) is that less than 24 *black cockatoo foraging trees* will survive, the permit holder must undertake additional *planting* that will result in a total of 24 *black cockatoo foraging trees* persisting within the area cross-hatched red in Figure 2 of Schedule 1.
- (e) Where additional *planting* of *black cockatoo foraging trees* is undertaken in accordance with condition 9(d), the permit holder must repeat the activities required by condition 9(a), 9(b) and 9(c) of this permit.

**10. Offset – Lot 13916 on Deposited Plan 38045 (Reserve 54226)**

Within 24 months of the commencement of clearing authorised under this permit and no later than 03 March 2028, the permit holder must provide to the *CEO* a copy of the executed change in purpose of Lot 13916 on Deposited Plan 38045 (Reserve 54226) from ‘Gravel and Parkland Rehabilitation’ to ‘Conservation’ within the area cross-hatched red in Figure 3 of Schedule 1.

**PART III - RECORD KEEPING AND REPORTING**

**11. Records that must be kept**

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

**Table 1: Records that must be kept**

No.	Relevant matter	Specifications
1.	In relation to the authorised clearing activities generally	<ul style="list-style-type: none"> <li>(a) the species composition, structure, and density of the cleared area;</li> <li>(b) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings;</li> <li>(c) the date that the area was cleared;</li> <li>(d) the size of the area cleared (in hectares);</li> <li>(e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 5;</li> <li>(f) actions taken to minimise the risk of the introduction and spread of <i>weeds</i> and <i>dieback</i> in accordance with condition 6;</li> <li>(g) actions taken in accordance with <i>condition 7</i>; and</li> <li>(h) actions taken in accordance with <i>condition 8</i>.</li> </ul>
2.	In relation to <i>planting</i> pursuant to condition 9	<ul style="list-style-type: none"> <li>(a) the date(s) on which <i>planting</i> was undertaken;</li> <li>(b) the boundaries of the area <i>planted</i>, using a Global Positioning System (GPS) unit set to GDA2020, expressing the</li> </ul>

No.	Relevant matter	Specifications
		<p>geographical coordinates in Eastings and Northings;</p> <p>(c) a description of the <i>planting</i> activities undertaken, including actions taken to implement watering and <i>weed</i> control;</p> <p>(d) the number of each species of <i>black cockatoo foraging trees planted</i>;</p> <p>(e) a copy of the <i>environmental specialist's</i> monitoring report and determination; and</p> <p>(f) a description of any remedial actions undertaken pursuant to conditions 9(c), 9(d) and 9(e), where the <i>environmental specialist</i> indicated that <i>planted</i> trees will not survive.</p>

## 12. Reporting

- (a) The permit holder must provide to the *CEO*, on or before 30 June of each calendar year, a written report containing:
- the records required to be kept under condition 11; and
  - records of activities done by the permit holder under this permit between 1 January and 31 December of the preceding calendar year
- (b) If no clearing authorised under this permit has been undertaken, a written report confirming that no clearing under this permit has been undertaken, must be provided to the *CEO* on or before 30 June of each calendar year.
- (c) The permit holder must provide to the *CEO*, no later than 90 calendar days prior to the expiry date of the permit, a written report of records required under condition 12, where these records have not already been provided under condition 12(a).

## DEFINITIONS

In this permit, the terms in Table 2 have the meanings defined.

**Table 2: Definitions**

Term	Definition
black cockatoo foraging trees	means a mixture of marri ( <i>Corymbia calophylla</i> ) and jarrah ( <i>Eucalyptus marginata</i> ) trees.
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the <i>Environmental Protection Act 1986</i> .
clearing	has the meaning given under section 3(1) of the EP Act.
condition	a condition to which this clearing permit is subject under section 51H of the EP Act.
department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 2.
dieback	means the effect of <i>Phytophthora</i> species on native vegetation.

Term	Definition
environmental specialist	means a person who holds a tertiary qualification specialising in environmental science or equivalent and has a minimum of 2 years work experience relevant to the type of environmental advice that an environmental specialist is required to provide under this permit, or who is approved by the <i>CEO</i> as a suitable environmental specialist.
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
fill	means material used to increase the ground level, or to fill a depression.
local provenance	means native vegetation seeds and propagating material from natural sources within 50 kilometres and the same Interim Biogeographic Regionalisation for Australia (IBRA) subregion of the area cleared.
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
optimal time	means the period from May to June for undertaking planting and seeding
plant/ing/ed	means the re-establishment of vegetation by creating favourable soil conditions and establishing seedlings of the desired species.
weeds	means any plant – <ul style="list-style-type: none"> <li>(a) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i>; or</li> <li>(b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or</li> <li>(c) not indigenous to the area concerned.</li> </ul>

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**END OF CONDITIONS**


C Robertson  
05.02.2026  
5.38PM

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Caron Robertson  
MANAGER  
NATIVE VEGETATION REGULATION

*Officer delegated under Section 20  
Of the Environmental Protection Act 1986*

5 February 2026



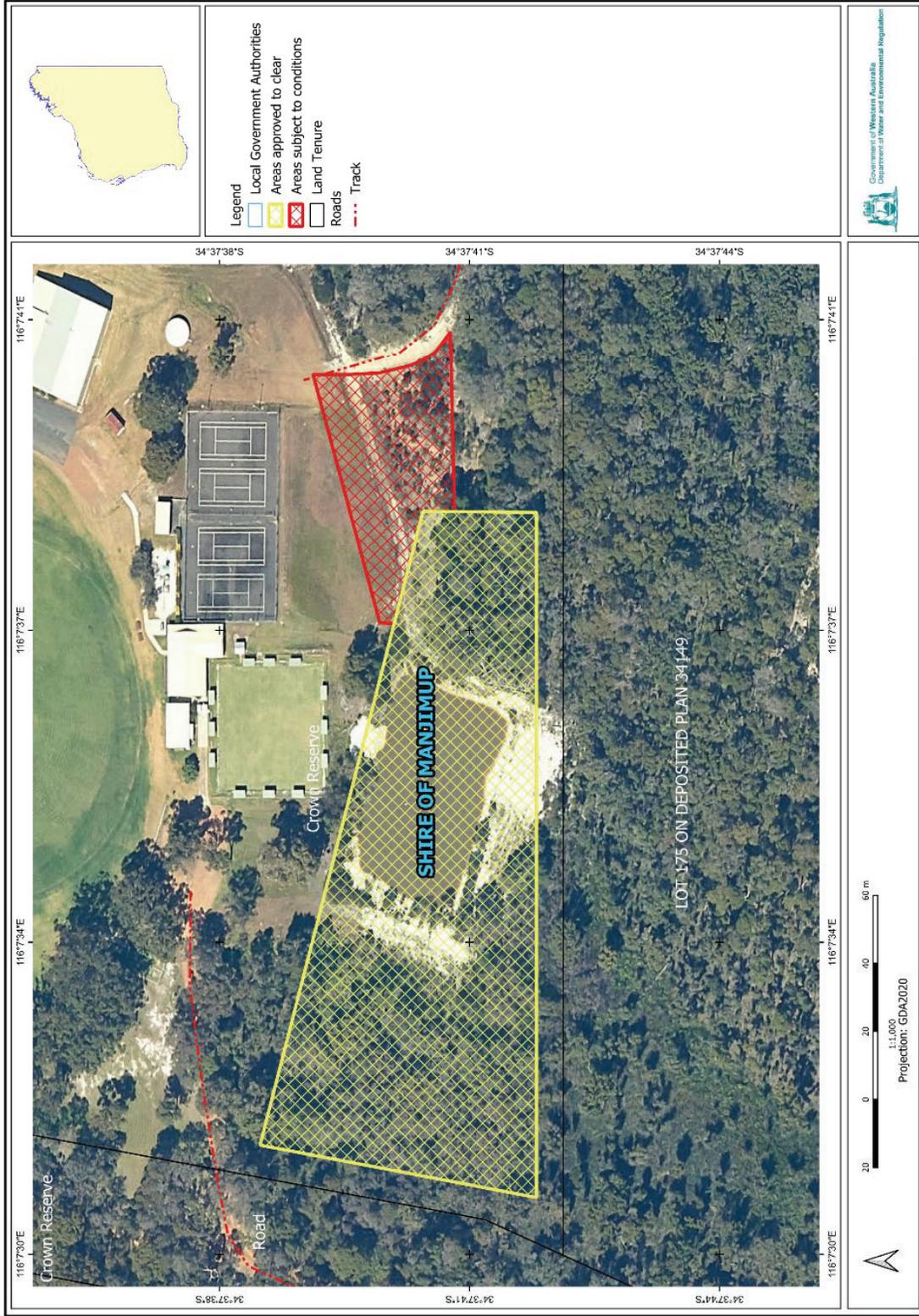


Figure 2: Map of the boundary of the area subject to condition 9 (rehabilitation) (cross-hatched red)



Figure 3: Map of the boundary of the area subject to condition 10 (offset) (cross-hatched red)



# Clearing Permit Decision Report

## 1 Application details and outcome

### 1.1. Permit application details

<b>Permit number:</b>	CPS 10803/1
<b>Permit type:</b>	Area permit
<b>Applicant name:</b>	Shire of Manjimup
<b>Application received:</b>	15 October 2024
<b>Application area:</b>	0.89 hectares of native vegetation within a 1.36-hectare footprint
<b>Purpose of clearing:</b>	Expansion of a Dam
<b>Method of clearing:</b>	Mechanical
<b>Property:</b>	Lot 66 on Deposited Plan 140892 (Crown Reserve 18775)
<b>Location (LGA area/s):</b>	Shire of Manjimup
<b>Localities (suburb/s):</b>	Northcliffe

### 1.2. Description of clearing activities

The Shire of Manjimup (the Shire) propose to clear 0.89 hectares of vegetation that surrounds a 0.47-hectare existing dam (see Figure 1, Section 1.5). The proposed clearing will allow the shire to upgrade the existing dam to provide a larger water supply to irrigate the sporting field and to aid in fire suppression for emergency services.

### 1.3. Decision on application

<b>Decision:</b>	Granted
<b>Decision date:</b>	5 February 2026
<b>Decision area:</b>	0.89 hectares of native vegetation within a 1.36-hectare footprint, as depicted in Section 1.5, below.

### 1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (the department) advertised the application for 21 days and one submission was received (see Appendix B).

In making this decision, the Delegated Officer had regard for:

- relevant planning instruments and other matters considered relevant to the assessment (see Section 3.3).
- the site characteristics (see Appendix C),
- the clearing principles set out in Schedule 5 of the EP Act (see Appendix D),
- relevant datasets (see Appendix H.1.),
- the findings of a targeted fauna and habitat tree assessment (Harewood, 2024), and
- the findings of a department site visit (DWER, 2025a; DWER, 2025b).

The Delegated Officer also took into consideration the proposed clearing is to upgrade an existing dam to provide a larger water supply to irrigate a public sporting field and to aid in fire suppression for emergency services benefiting the public.

The assessment identified that the proposed clearing would result in:

- the loss of native vegetation that is suitable foraging habitat for *Zanda latirostris* (Carnaby's cockatoo), *Zanda baudinii* (Baudin's cockatoo) and *Calyptorhynchus banksia naso* (forest red-tailed black cockatoo),
- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values,
- land degradation in the form of wind erosion, and
- a risk of injury to fauna if present during clearing activities.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined that some potential impacts of the proposed clearing, including potential land degradation through wind erosion and the potential spread of weeds, can be minimised and managed to be unlikely to lead to an unacceptable risk to environmental values through appropriate conditions on the clearing permit. Native vegetation within the application area provides significant foraging habitat for black cockatoo species and the proposed clearing will have a significant residual impact, after minimisation and mitigation measures have been considered, on these values.

In accordance with the Government of Western Australia's Environmental Offsets Policy (2011) and Environmental Offsets Guidelines (2014), the Delegated Officer determined that an environmental offset, consisting of the management of 3.24 hectares of native vegetation in Lot 13916 on Deposited Plan 38045 (Crown Reserve R 54226 that includes significant foraging habitat for black cockatoo species, is sufficient to address the significant residual impacts of the proposed clearing (see Section 4).

The Delegated Officer decided to grant a clearing permit subject to conditions to:

- undertake avoid and minimise measures to reduce the impacts and extent of clearing,
- take hygiene steps to minimise the risk of the introduction and spread of weeds,
- undertake works within three months of clearing to minimise wind erosion,
- undertake slow, progressive one directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity,
- demarcate the clearing area to avoid inadvertent clearing of adjacent native vegetation,
- pre-clearing inspection for Western Ringtail Possum,
- undertake rehabilitation of 0.24 hectares of native vegetation within Lot 66 on Deposited Plan 140892 (Crown Reserve 18775), and
- provide an offset of 3.24 hectares to counterbalance the significant residual impacts to 0.89 hectares of native vegetation representing significant black cockatoo foraging habitat.

1.5. Site maps

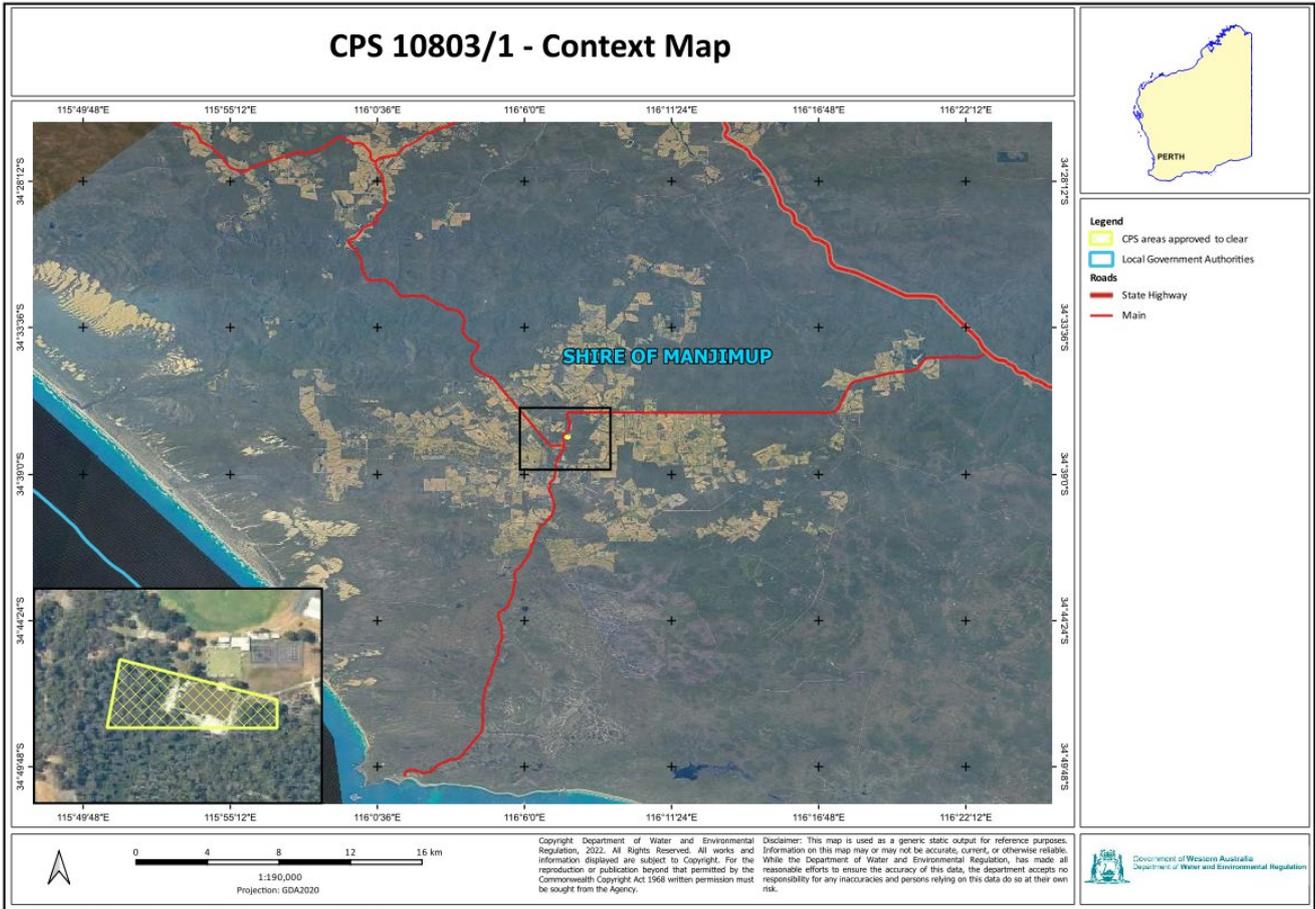


Figure 1: Context map of the application area the area crosshatched yellow indicates the area authorised to be cleared under the granted clearing permit.

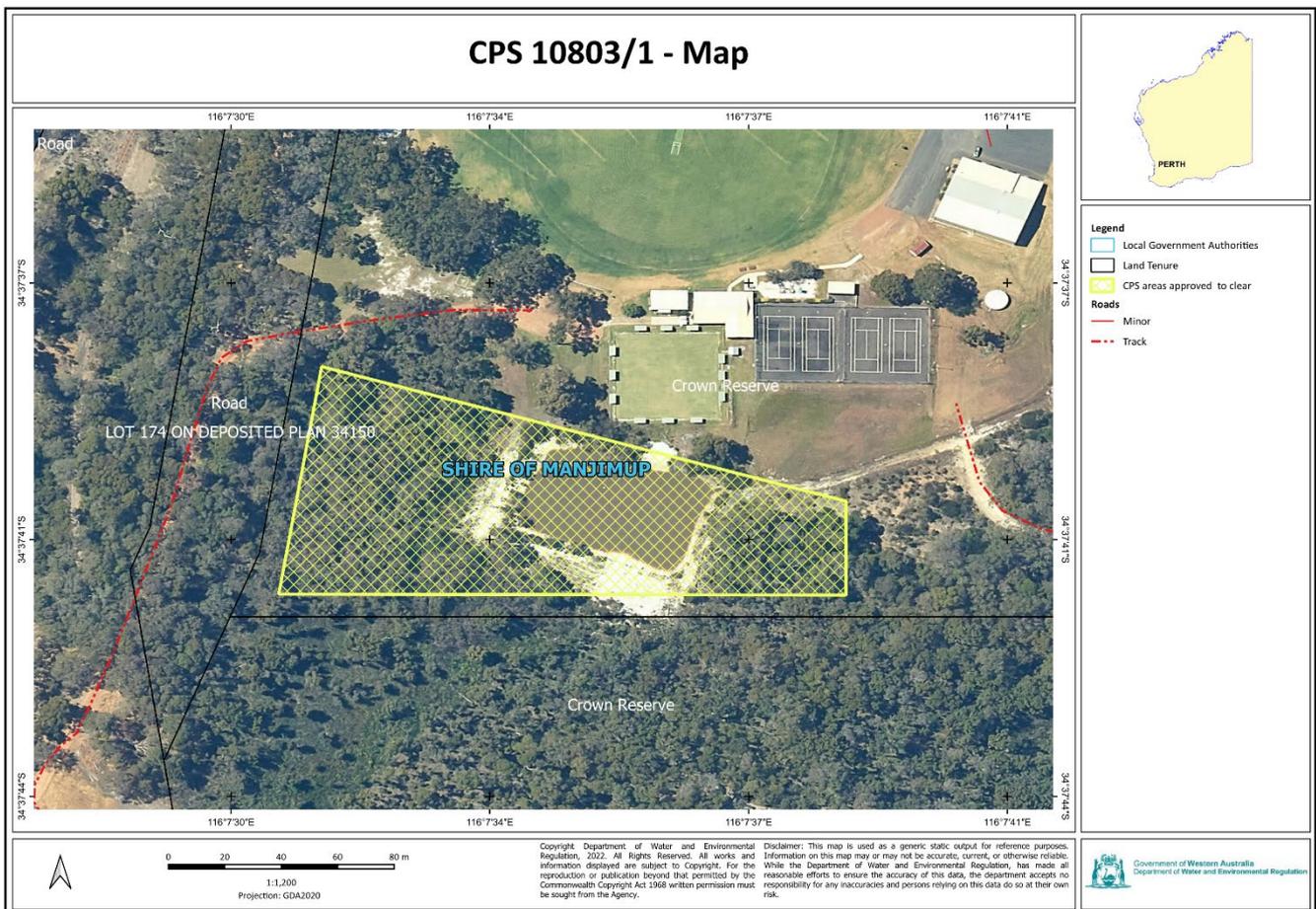


Figure 2: Map of the application area the area crosshatched yellow indicates the area authorised to be cleared under the granted clearing permit

## 2 Legislative context

The clearing of native vegetation in Western Australia is regulated under the EP Act and the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act (see Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity
- the polluter pays principle
- the principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Planning and Development Act 2005* (WA) (P&D Act)
- *Soil and Land Conservation Act 1945* (WA)

Relevant policies considered during the assessment include:

- *Environmental Offsets Policy* (2011)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)
- *Environmental Offsets Guidelines* (August 2014)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)

### 3 Detailed assessment of application

#### 3.1. Avoidance and mitigation measures

The Shire has advised that the following avoidance and mitigation measures have been undertaken or will be undertaken (Shire of Manjimup, 2024; Shire of Manjimup, 2025b).

##### Avoidance and mitigation

- the Shire has stated that the clearing is solely for the purpose of developing a 25Ml dam, prior to development operations and clearing, subsequent Geo Technical Surveys will be undertaken to ascertain possible dam depth. If Dam depth can be increased the footprint of the overall clearing will decrease and reduce the total amount of clearing required.
- design plans of the oval runoff swales is being completed to ensure maximum water catchment to minimise clearing.
- the Shire will prioritise pruning of native vegetation where appropriate to avoid clearing.

##### Rehabilitation

The assessment identified the proposed clearing will result in the loss of 0.89 hectares of native vegetation that is significant black cockatoo foraging habitat. The applicant committed to mitigation impacts through local rehabilitation and an offset (Shire of Manjimup, 2025b).

The Shire will rehabilitate a 0.24-hectare area of native vegetation within Lot 66 on Deposited Plan 140892 (Crown Reserve 18775 (see Figure 3). The rehabilitation will include infill planting of native black cockatoo foraging habitat. Aerial imagery and a site visitation conducted by the department (DWER, 2025a) indicate that the area proposed for the rehabilitation, comprises predominantly completely degraded (Keighery, 1994) condition regrowth vegetation with no black cockatoo foraging habitat and abundant rubbish.

The adequacy of the proposed revegetation was assessed for consistency with the WA Environmental Offsets Calculator. The clearing permit contains conditions that require contingency measures for the proposed rehabilitation.

The Delegated Officer is satisfied that the applicant has made a reasonable effort to avoid and minimised the potential impacts of the proposed clearing on environmental values. The Delegated Officer determines the proposed rehabilitation credit is approximately 15 per cent of the significant impacts. After the rehabilitation efforts, significant residual impacts (SRIs) still remain, and an offset is required to counterbalance these SRI's (see section 4).

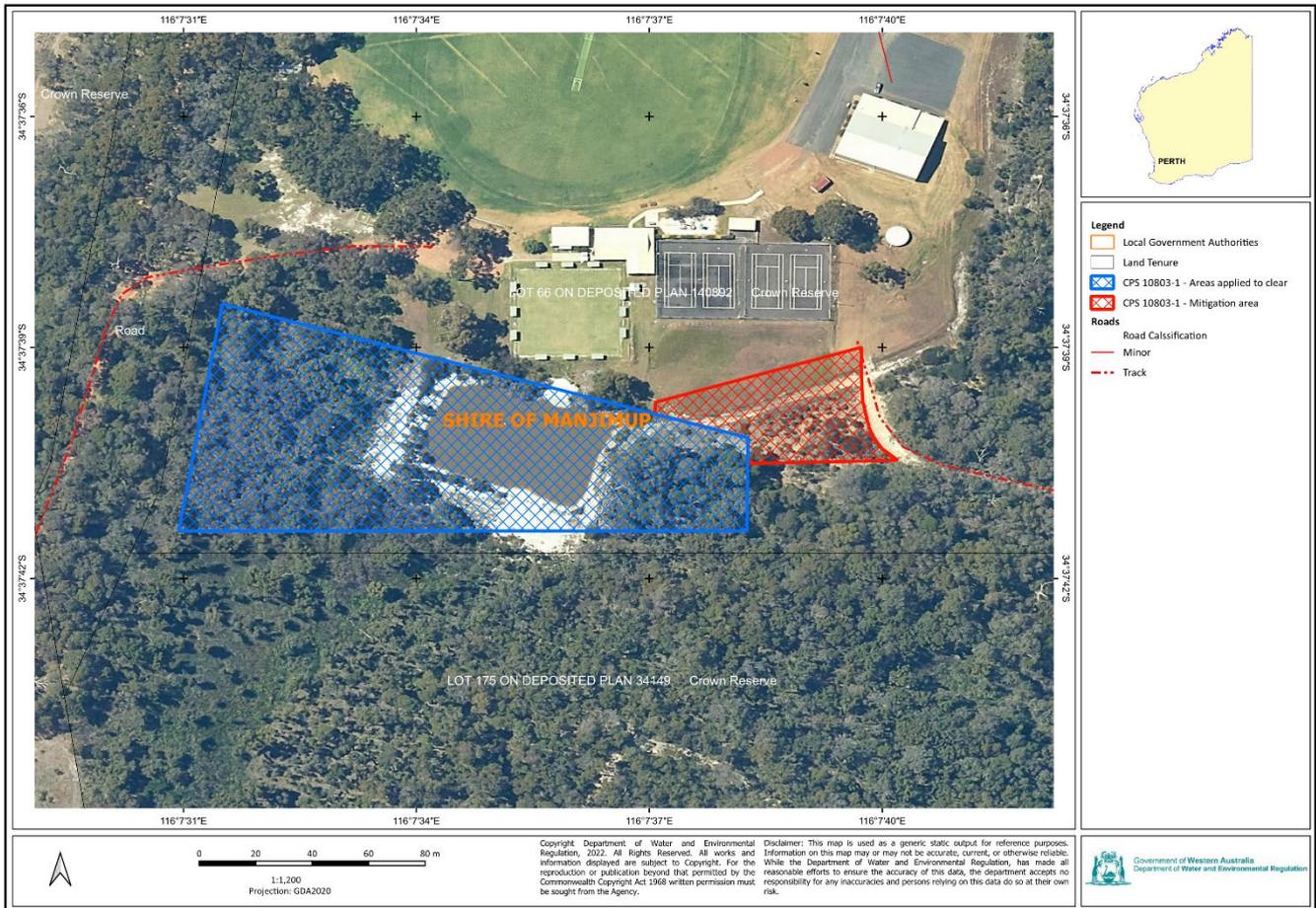


Figure 3. Map of the application area the area crosshatched yellow indicates the area authorised to be cleared under the granted clearing permit, area crosshatched red indicates the 0.24 hectares mitigation planting area.

### 3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix C) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values.

The assessment against the clearing principles (see Appendix D) identified the impacts of the proposed clearing present a risk to biological values (fauna) and water resources. The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

#### 3.2.1 Biological values (fauna) - Clearing Principles (b)

##### Assessment

A fauna likelihood assessment was conducted based on the preferred habitat and vegetation types of conservation significant fauna species recorded in the local area (10-kilometre radius from the application area), the site characteristics (Appendix C), and known species distribution. The likelihood analysis identified eight conservation significant fauna species which may occur in the application area (see Appendix C.3):

- *Calyptorhynchus banksii naso* (Forest red-tailed black cockatoo)
- *Isodon fusciventer* (Quenda)
- *Leipoa ocellata* (Malleefowl)
- *Phascogale tapoatafa wambenger* (Wambenger)
- *Pseudocheirus occidentalis* (Western ringtail possum)
- *Setonix brachyurus* (Quokka)
- *Zanda baudinii* (Baudin's cockatoo)

- *Zanda latirostris* (Carnaby's cockatoo)

### **Black cockatoo Species**

Black Cockatoos (Baudin's, Carnaby's, forest red-tailed black cockatoos) habitat can be categorized into three distinct groups: breeding, foraging, and roosting. Black Cockatoos typically forage within a 12-kilometre radius of their active breeding site (Commonwealth of Australia, 2022). Following breeding, they will flock in search of food sources within six kilometres of their night roost (Commonwealth of Australia, 2022). However, they may travel up to 20 kilometres or more (Commonwealth of Australia, 2022). To maintain their populations, it is crucial to have an abundance of food resources within the range of their breeding and roosting sites. Consequently, foraging resources are evaluated based on proximity to known breeding and night roosting sites, with critical foraging resources located within 12 kilometres of a breeding or roosting site (Commonwealth of Australia, 2022). The application area is located within the modelled core range for the forest red-tailed black-cockatoo and of likely habitat range for Carnaby's and Baudin's.

#### Breeding habitat

Black cockatoo species are known to nest in hollows of live and dead trees, including *Corymbia calophylla* (marri), *Eucalyptus marginata* (jarrah), *Eucalyptus diversicolor* (karri), and other *Eucalyptus* spp. (Commonwealth of Australia, 2022). 'Breeding habitat' for black cockatoos includes trees of these species that either have a suitable nest hollow or are of a suitable diameter at breast height (DBH) to develop a nest hollow, where suitable DBH for nest hollows is  $\geq 50$  centimetres for most tree species (Commonwealth of Australia, 2022). Black cockatoos generally breed and forage within a 6-to-12-kilometre radius of their nesting site (Commonwealth of Australia, 2022).

According to spatial data, there are no records of black cockatoo breeding hollows within 12 kilometres of the application area, with the closest recorded black cockatoo hollow being approximately 18.96 kilometres northeast from the application area. According to the targeted fauna and habitat tree assessment, one tree with a DBH  $\geq 50$  centimetres was found to have a hollow within the application area, however the estimated hollow entrance size was  $<5\text{cm}$  (Harewood, 2024) being too narrow for use by black cockatoo species.

#### Foraging habitat

Carnaby's and Baudin's cockatoos forage on a variety of seeds, nuts, and flowers, and plants, including Proteaceous species (*Banksia* spp., *Hakea* spp., and *Grevillea* spp.), as well as *Allocasuarina* and *Eucalyptus* spp., marri, and a range of introduced species (Valentine & Stock, 2008). Forest red-tailed black cockatoos feed predominantly on the seeds of marri and jarrah, which comprise approximately 90 per cent of their diet (DEC, 2008).

The targeted fauna and habitat tree assessment (Harewood, 2024) determined that the application area contains 41 Blackbutt (*Eucalyptus patens*) being approximately 0.66 hectares of low secondary foraging habitat and 15 Marri (*Corymbia calophylla*) and 4 Jarrah (*Eucalyptus marginata*), being approximately 0.23 hectares of high-quality foraging habitat. During the department's site visit to the application area, evidence of foraging activity was observed (see Figures 8 and 9).

#### Roosts

Black cockatoos will utilise a wide range of native and non-native trees situated within a variety of land-use types. Black cockatoos will usually roost in tall (average of  $>25$  metres) trees species that have a relatively thick trunk (diameter at breast height of 1 metre) and medium foliage density (average of 50%) (Le Roux, 2017).

According to available databases, there are 2 roosting sites within a 12-kilometre radius of the application area. The closest known roost site for black cockatoo species being approximately 1.63 kilometres from the application area. Roosting typically occurs within suitable trees that are in close proximity to a water source and within an area of quality foraging habitat (Commonwealth of Australia, 2022). The targeted fauna and habitat tree assessment did not identify any roosts within the application area but did record black cockatoos calling within close proximity to the application area (Harewood, 2024).

Given the above, it is considered that the proposed clearing will impact on 0.89 hectares of suitable foraging habitat that may support nearby roosting populations of black cockatoo species.

### **Western ringtail possum**

The Western Ringtail Possum (WRP) are a nocturnal, arboreal folivore that primarily inhabit long-unburnt, mature remnant peppermint woodlands along the Swan Coastal Plain management zone, extending from Mandurah to

Augusta. These habitats are characterised by high canopy cover and connectivity (DPAW, 2017; DCCEEW, 2023). Populations of WRP also occur within the Southern Forest Management Zone, predominantly in jarrah or marri dominated forests. They are often associated with adjacent riparian vegetation stands featuring an overstorey of flooded gum (*Eucalyptus rudis*), and their range extends into wandoo (*Eucalyptus wandoo*) forests northeast of Manjimup and karri (*Eucalyptus diversicolor*) forests from Northcliffe to west of Manjimup (DEC, 2012c). Critical habitat for WRP, comprises forests with minimal anthropogenic disturbance specifically, areas that are unlogged or lightly logged and exhibit a low-intensity, low-frequency fire history.

A targeted fauna and habitat tree assessment of the application area identified no evidence of WRP dreys in blackbutt, jarrah, or marri trees, and no WRP scats were observed (Harewood, 2024). A site visit by department officers confirmed that the application area has a history of recent fires and that the surrounding landscape has experienced extensive anthropogenic disturbance, including the presence of a man-made dam, football oval, and roads. Consequently, the application area is unlikely to provide suitable habitat for WRP.

### Other Fauna

The Quenda, Malleefowl, Wambenger, and Quokka may utilise the application area as transient habitat. However, the proposed clearing is considered unlikely to have a significant effect on habitat for these species, given:

- the small extent of the application area;
- the presence of abundant areas of adjacent vegetation providing suitable habitat;
- the vegetation types within the application area are not considered to comprise significant habitat values for these species; and
- the proposed clearing will not result in a loss of habitat connectivity.

### Conclusion

Based on the above assessment, the proposed clearing includes suitable foraging habitat for black cockatoos. Slow, directional clearing to allow fauna to move into adjacent areas of native vegetation will mitigate impacts to individuals that may be present at the time of clearing.

Details of the proposed mitigation planting and offset was put into the WA Environmental Offsets Metric Calculator to determine the ratio required to mitigate the loss of 0.89 hectares of black cockatoo foraging habitat. Based on the applicants proposal to undertake mitigation rehabilitation over 0.24 hectares the calculator determined that further 3.24 hectares are required to be offset to counterbalance 100 per cent of the significant residual impacts of the proposal. The department considers the mitigation planting aligns with the WA Environmental Offsets Policy (2011) and WA Environmental Offsets Guideline (2014) and has condition the mitigation and offset on the permit accordingly.

For the reasons set out above, it is considered that the impacts of the proposed clearing on biological values can be managed through the avoidance, minimisation and mitigation measures committed to by the applicant and the the significant residual impacts counterbalanced through an environmental offset.

### Conditions

To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- slow directional clearing to allow terrestrial fauna to disperse ahead of the clearing activity should they occur on the site at time of clearing,
- planting and maintaining of 0.24 hectares of black cockatoo foraging habitat trees within Lot 66 on Deposited Plan 140892 (Crown Reserve 18775), and
- an offset of 3.24 hectares of black cockatoo foraging habitat to counterbalance the significant residual impacts to 0.89 hectares of moderate (averaged for the site) quality black cockatoo foraging habitat.

## **3.2.2 Land and water resources (land degradation) - Clearing Principles (g), (h) and (i)**

### Assessment

#### **Waterbodies**

The application area contains an existing artificial dam. The closest natural mapped waterbody is a nonperennial minor river located approximately 180 metres south of the application area. This river is a tertiary tributary to the Garden River. If water is present during clearing activities, the proposed clearing may mobilise sediments and silt,

which may temporarily impact surface water quality within the application area. Topographical contours suggest that the application area is relatively flat, with broader topography sloping towards the nonperennial minor river. To mitigate potential water quality impacts the Shire intends to install runoff swales encircling the dam that will create a channel around the dam to manage water runoff during and post construction. Given the proposed mitigation measures, the proposed clearing is unlikely to result in any significant or long-term impacts to the ecological values of surface water or waterbodies outside of the manmade dam.

### Soils

The soils within the broader application area fall within the Angove Subsystem (Northcliffe) soil system. The mapped soils are highly susceptible to wind erosion and subsurface acidification, with a medium risk of waterlogging. Subsurface acidification can be exacerbated by the addition of organic materials, including debris generated during clearing activities. However, given the small scale of the proposed clearing and that vegetation has already been cleared adjacent to the dam without evidence of long term soil degradation, the clearing is unlikely to appreciably exacerbate subsurface acidification. Additionally, as the proposed clearing is located on the banks of the artificial dam, and the soils are likely to be inundated by water after the dam is built, risks posed by wind erosion are likely to be low, provided construction activities commence no later than three months after undertaking the clearing authorised under this permit to ensure stabilisation of soils.

### Flooding

The primary objective of the clearing is to facilitate the expansion of the existing dam, which will, by design, increase localised flooding and waterlogging within the application area. Despite this, the absence of other nearby waterbodies or watercourses, combined with mapped soil characteristics indicating low flood risk and the prevailing topography around the dam, suggests that any increase in flooding or waterlogging will be restricted to the dam area and will not extend to the surrounding landscape.

### Conclusion

Given the small extent of the proposed clearing (0.89 hectares of native vegetation), the potential impacts on water resources are likely to be minimal and short-term and not likely to have an appreciable impact on increasing subsurface acidification or deterioration in the quality of surface or underground water. The clearing will increase localised flooding and waterlogging which will be contained on site and wind erosion is only likely if soils are left bare for extended periods of time.

### Conditions

To address the above potential impacts, the following management measures will be required as conditions on the clearing permit:

- undertake avoid and minimise measures to reduce the impacts and extent of clearing,
- take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback
- the permit holder must commence construction activities no later than three (3) months after undertaking the clearing authorised under this permit.

### 3.3. Relevant planning instruments and other matters

No Aboriginal sites of significance have been mapped within the application area. It is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972 (WA)* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

## 4 Suitability of offsets

### Avoidance and Mitigation

The Delegated Officer is satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values (see section 3.1).

### Assessment of Impacts

Through the assessment of the impacts of the proposed clearing outlined in section 3.2 above, the Delegated Officer has determined that the following significant residual impacts remain after the application of the avoidance and mitigation measures:

- The loss of 0.89 hectares of suitable (moderate quality) foraging habitat for Carnaby's, Baudin's, and forest red-tailed black cockatoos.

**Offset Background**

The Shire has a banked an offset within Lot 13916 on Deposited Plan 38045 (Crown Reserve R 54226) in Crowea. This offset was determined and approved through the appeal process on 10th October 2022, under clearing permit CPS 9333/1, with its vesting changed from 'Gravel and Parkland Rehabilitation' to 'Conservation'. The applicant proposes that the Reserve R 54226 is a viable offset site to counterbalance the significant residual impacts resulting from the proposed clearing, in conjunction with the mitigation planting within Lot 66 on Deposited Plan 140892 (Crown Reserve 18775). Based on the information from the appeals report and the department's site visit, R54226 contains Very Good to Excellent black cockatoo foraging habitat (DWER, 2025b).

The Shire's banked offset site (R 54226) is a 9.66-hectare lot of native vegetation that has been used by the applicant as an offset for two current clearing permits. A total of 0.43 hectares has been committed as an offset for clearing under clearing permit 9333/1 and 1.6 hectares for clearing permit 9742/1. A total of 7.63 hectares of suitable foraging habitat for black cockatoos remains unallocated within the banked offset site.

**Offset**

The Shire submitted an offset proposal to utilise 3.24 hectares of the remaining 7.63 hectares of R 54226 to offset the significant residual impacts of the proposed clearing (see Figure 4). The proposed offset has been assessed against the WA State Government's Environmental Offsets Policy and Environmental Offsets Guidelines (Government of Western Australia, 2014), and informed by the draft WA environmental offsets metric (DWER, 2021) and associated draft procedure (DWER, 2022). The justification for the values used in the offset calculation is provided in Appendix F.

The offset calculations identified that:

- mitigation planting of 0.24-hectare and offsetting of 3.24 hectares of native vegetation in very good to excellent (Keighery, 1994) condition is required to counter 100 per cent of the significant residual impacts on foraging habitat for Carnaby's, Baudin's, and forest red-tailed black cockatoos.

Given the above, the offset proposed by the Shire adequately counterbalances the significant residual impacts listed above. The Delegated Officer is satisfied that the proposed offset is adequate to counterbalance the significant residual impacts resulting from the proposed clearing and is consistent with the *WA Environmental Offsets Policy* (2011) and *WA Environmental Offset Guidelines* (2014). 4.39 hectares of the Shire's banked offset within Crown Reserve R54226 will remain unallocated.

# CPS 10803/1 - Offset Area

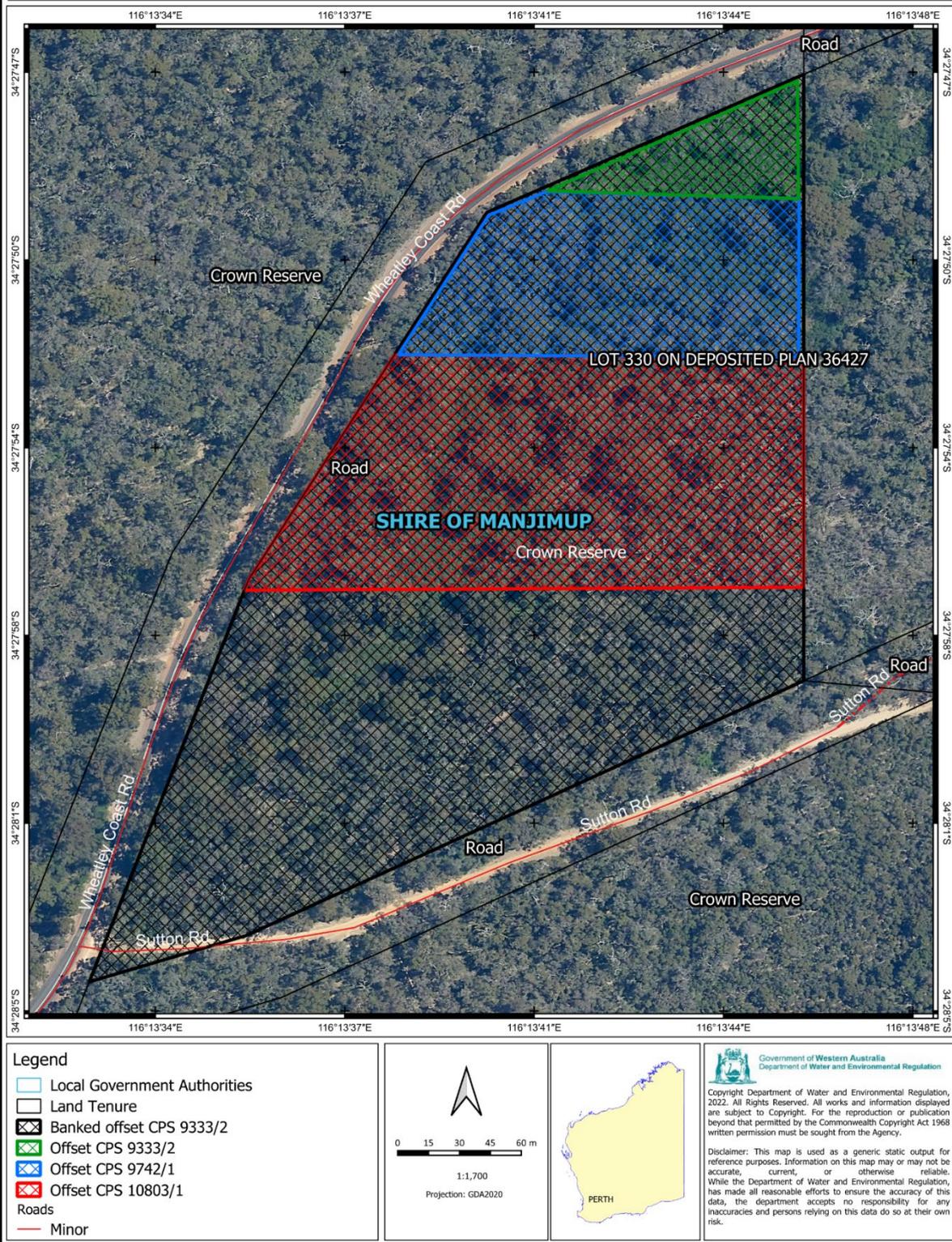


Figure 4: Map of the portions allocated to clearing permits within the Shire of Manjimup's banked offset site at Lot 13916 on Deposited Plan 38045 (Crown Reserve R 54226).

**End**

## Appendix A. Additional information provided by applicant

Supporting documents provided by applicant	Description
Applicant provided further mitigation measures and necessity of clearing (Shire of Manjimup, 2025b).	<p>The necessity for this clearing was highlighted during the Chesapeake bushfire, whereby the dam under application was drained to assist firefighting efforts, thus holding insufficient water to support additional emergency response efforts.</p> <ul style="list-style-type: none"> <li>the dam supplies irrigation to the surrounding oval, the current capacity is not sufficient for this purpose. 25ML is required.</li> <li>this dam is utilised for fire suppression and emergency services within the greater area.</li> <li>community support is strong for the need to have a larger, accessible water source for local firefighting.</li> <li>Northcliffe relies on water to be carted in, and should access routes become blocked, an onsite water source would assist greatly.</li> <li>alternative locations have been considered; however, suitable areas would require additional clearing, larger than the proposed site.</li> <li>water catchment calculations have been undertaken, with runoff being a contributing factor to location, this location has a suitable runoff area, with open parkland (ovals) assisting catchment.</li> </ul>

## Appendix B. Additional information provided by public

Summary of comments	Consideration of comment
This location proposed to be cleared contains habitat that is suitable foraging for all 3 species of black cockatoos, however Baudin's and forest red-tailed black cockatoos are the two more common species.	The assessment has considered impacts to clearing of 0.89 hectares of foraging habitat for three conservation significant species of black cockatoo. Consideration was given to the mitigation measures (planting) proposed by the applicant and the requirement for an environmental offset to counterbalance 100 per cent of the significant residual impacts of the proposed clearing on black cockatoo foraging habitat (see section 3 (assessment) and section 4 (offset)).

## Appendix C. Site characteristics

### C.1. Site characteristics

The information provided below describes the key characteristics of the area proposed to be cleared and is based on the best information available to the department at the time of this assessment. This information was used to inform the assessment of the clearing against the clearing principles, contained in Appendix D.

Characteristic	Details
Local context	<p>The area proposed to be cleared is 0.89 hectares of native vegetation in a 1.36-hectare footprint in the intensive land use zone of Western Australia. Within the centre of the clearing footprint is a 0.47-hectare dam that is proposed to be expanded.</p> <p>Spatial data indicates the local area retains approximately 60.92 per cent of the original native vegetation cover.</p>
Ecological linkage	The application area is part of the Southwest Regional Ecological Linkage (136).
Conservation areas	The application area does not overlap with a mapped conservation area. The closest mapped conservation area is the Gardner State Forest approximately 280 metres northeast of the application area.

Characteristic	Details																		
Vegetation description	<p>The targeted fauna and tree habitat assessment (Harewood, 2024) and department site visit (DWER, 2025a) identified that the application area includes two vegetation types:</p> <ul style="list-style-type: none"> <li>Blackbutt (<i>Eucalyptus patens</i>) dominated open woodland over an open shrubland.</li> <li>Open woodland dominated by Marri (<i>Corymbia calophylla</i>) and Jarrah (<i>Eucalyptus marginata</i>), over tall shrubland.</li> </ul> <p>This is inconsistent with the mapped vegetation type:</p> <ul style="list-style-type: none"> <li>Southern Plain, Angove (1), described as open forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i>, <i>Banksia ilicifolia</i>, <i>Nuytsia floribunda</i> with some <i>Eucalyptus diversicolor</i> on gently sloping sandy terrain in hyperhumid and perhumid zones.</li> </ul> <p>Representative photos and the full survey descriptions are available in Appendix G. The mapped vegetation type retains approximately 87.50 per cent of the original extent (Government of Western Australia, 2019).</p>																		
Vegetation condition	<p>The targeted fauna and tree habitat assessment (Harewood, 2024) and department site visit (DWER, 2025a) identified the vegetation within the proposed clearing area is in very good to degraded (Keighery, 1994) condition and has been subject to a fire approximately 3 years ago.</p> <p>The full Keighery (1994) condition rating scale is provided in Appendix E. Representative photos are available in Appendix G.</p>																		
Climate and landform	<p>The climate experienced in the application area is mediterranean, characterised by hot and dry summers and cool and wet winters. The application area has an average annual rainfall of 1225.4 millimetres, with most of the rain in June to September (Bureau of Meteorology, 2024). Data is obtained from the closest meteorological station Walters Farm station (no. 009904) approximately 3.8 kilometres north of the application area.</p> <p>The elevation of the application area is relatively level with the surrounding area, ranging from 90 to 100 meters isohyet.</p>																		
Soil description	<p>The soil type across the application area is mapped as the Angove Subsystem (254NfAN): described as a gently sloping sandy terrain; slight dissections. Humus podzols on broad crests; Kangaroo Grass sedgeland, Teatree heath. Sandy yellow duplex soils in shallow dissections; Jarrah woodland.</p>																		
Land degradation risk	<p>Available mapping indicates the application area is at high risk of wind erosion, waterlogging, and subsurface acidification.</p> <table border="1"> <thead> <tr> <th colspan="2">Angove Subsystem (Northcliffe)</th> </tr> </thead> <tbody> <tr> <td>Subsurface acidification</td> <td>H2: &gt;70% of map unit has a high risk or is presently acid</td> </tr> <tr> <td>Waterlogging</td> <td>H1: 50-70% of map unit has a moderate to very high risk</td> </tr> <tr> <td>Wind erosion</td> <td>H1: 50-70% of map unit has a high to extreme risk</td> </tr> <tr> <td>Phosphorous export</td> <td>M2: 30-50% of map unit has a high to extreme phosphorus export risk</td> </tr> <tr> <td>Water repellence</td> <td>M2: 30-50% of map unit has a high water repellence risk</td> </tr> <tr> <td>Flooding</td> <td>L1: &lt;3% of the map unit has a moderate to risk</td> </tr> <tr> <td>Salinity risk</td> <td>L1: &lt;3% of map unit has a moderate to high salinity risk or is presently saline</td> </tr> <tr> <td>Water erosion</td> <td>L1: &lt;3% of map unit has high to extreme risk</td> </tr> </tbody> </table>	Angove Subsystem (Northcliffe)		Subsurface acidification	H2: >70% of map unit has a high risk or is presently acid	Waterlogging	H1: 50-70% of map unit has a moderate to very high risk	Wind erosion	H1: 50-70% of map unit has a high to extreme risk	Phosphorous export	M2: 30-50% of map unit has a high to extreme phosphorus export risk	Water repellence	M2: 30-50% of map unit has a high water repellence risk	Flooding	L1: <3% of the map unit has a moderate to risk	Salinity risk	L1: <3% of map unit has a moderate to high salinity risk or is presently saline	Water erosion	L1: <3% of map unit has high to extreme risk
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Flooding	L1: <3% of the map unit has a moderate to risk																		
Salinity risk	L1: <3% of map unit has a moderate to high salinity risk or is presently saline																		
Water erosion	L1: <3% of map unit has high to extreme risk																		
Waterbodies	<p>The desktop assessment and aerial imagery indicated that there is a manmade dam within the clearing footprint of the application area. The nearest natural mapped waterbody is a nonperennial minor river 180 metres south of the application area.</p>																		
Hydrogeography	<p>The application area is not within an area proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (RiWI Act). The salinity of the application area is mapped at 500-1000 milligrams per litre total dissolved solids.</p>																		
Flora	<p>The desktop assessment identified nine conservation significant flora species within the local area (10km radius), compromising nine priority flora species. There are no threatened flora species recorded in the local area. There are no conservation significant</p>																		

Characteristic	Details
	flora species recorded within the application area. The nearest record is a Priority 4 species, <i>Microtis pulchella</i> , less than one kilometre from the application area.
Ecological communities	The desktop assessment identified one conservation significant ecological community within the local area (10km radius), the <i>Epiphytic Cryptogams</i> of the karri forest Priority Ecological Community (PEC) approximately 8.54 kilometres north of the application area. There are no conservation significant ecological communities mapped within the application area.
Fauna	The desktop assessment identified 21 conservation significant fauna species within the local area (10km radius). The nearest record is Carnaby's cockatoo ( <i>Zanda latirostris</i> ) approximately 200 metres from the application area.

### C.2. Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre-European extent in all DBCA managed land
IBRA bioregion*					
Warren	833,985.56	659,432.21	79.07	558,485.38	66.97
Vegetation complex*					
Angove (1)	39,698.49	34,737.44	87.50	31,437.22	79.19
Local area					
10km radius	31,968.65	19,477.95	60.92	-	-

\*Government of Western Australia (2019a)

### C.3. Fauna analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix H.1), impacts to the following conservation significant fauna required further consideration.

Species name	Common name	Conservation status	Suitable habitat features and vegetation type? [Y/N]	Distance of closest record to application area (km)	Are surveys adequate to identify?
<i>Calyptorhynchus banksii naso</i>	Forest red-tailed black cockatoo	VU	Y	1.84	Y
<i>Isoodon fusciventer</i>	Quenda	P4	Y	0.99	Y
<i>Leipoa ocellata</i>	Malleefowl	VU	Y	0.39	Y
<i>Phascogale tapoatafa wambenger</i>	Wambenger	CD	Y	3.99	Y
<i>Pseudocheirus occidentalis</i>	Western ringtail possum	CR	Y	0.33	Y
<i>Setonix brachyurus</i>	Quokka	VU	Y	0.94	Y
<i>Zanda baudinii</i>	Baudin's cockatoo	EN	Y	0.99	Y
<i>Zanda latirostris</i>	Carnaby's cockatoo	EN	Y	0.20	Y

## Appendix D. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
<b>Environmental value: biological values</b>		
<p><u>Principle (a):</u> "Native vegetation should not be cleared if it comprises a high level of biodiversity."</p> <p><u>Assessment:</u> The application area is comprised of vegetation surrounding a cleared dam and has been subject to historical fire disturbance. Surveys of the application area did not identify high levels of biological diversity within the application area.</p>	Not likely to be at variance	No
<p><u>Principle (b):</u> "Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."</p> <p><u>Assessment:</u> The application area includes native vegetation which provides moderate quality (average across site) foraging habitat for three species of conservation significant black cockatoo species.</p>	At variance	Yes <i>Refer to Section 3.2.1, above.</i>
<p><u>Principle (c):</u> "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."</p> <p><u>Assessment:</u> A flora likelihood assessment was conducted based on habitat and soil preferences, vegetation in the application area, and known species distribution. According to available databases, no threatened flora species have been recorded in the local area. The application area is unlikely to contain critical habitat for threatened flora species.</p>	Not likely to be at variance	No
<p><u>Principle (d):</u> "Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community."</p> <p><u>Assessment:</u> The application area does not contain species that indicate a threatened ecological community.</p>	Not at variance	No
<b>Environmental value: significant remnant vegetation and conservation areas</b>		
<p><u>Principle (e):</u> "Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."</p> <p><u>Assessment:</u> The extent of the mapped vegetation type and the native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia. The vegetation proposed to be cleared is mapped within significant ecological linkage in the local area however clearing is not likely to severe or substantial impact the functioning of this linkage.</p>	Not at variance	No
<p><u>Principle (h):</u> "Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area."</p> <p><u>Assessment:</u> Given the distance to the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.</p>	Not at variance	No
<b>Environmental value: land and water resources</b>		
<p><u>Principle (f):</u> "Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."</p>	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
<u>Assessment:</u> The application area contains a mapped manmade watercourse. Species within the application area not considered to be naturally occurring riparian vegetation.		
<u>Principle (g):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.” <u>Assessment:</u> The mapped soils are highly susceptible to subsurface acidification, phosphorous export, and wind erosion. Noting the small extent of the application area, the condition of the vegetation, and existing and final land use, the proposed clearing may have short term impact on land degradation.	May be at variance	Yes Refer to Section 3.2.2, above.
<u>Principle (i):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.” <u>Assessment:</u> The application area is not mapped within any Public Drinking Water Sources Areas or proclaimed areas under the RIWI Act and CAWSA, the proposed clearing is unlikely to result in impacts to sensitive groundwater resources. The removal of vegetation growing around the existing dam is unlikely have impacts on local surface water quality.	May be at variance	Yes Refer to Section 3.2.2, above.
<u>Principle (j):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.” <u>Assessment:</u> Given the purpose of clearing is to expand an existing dam, the final land use will increase the localised incidence and intensity of flooding.	At variance	Yes Refer to Section 3.2.2, above.

## Appendix E. Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation’s ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

### Measuring vegetation condition for the South West and Interzone Botanical Province (Keighery, 1994)

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.
Very good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.

Condition	Description
Completely degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

## Appendix F. Offset calculator value justification

### Offset Calculation and justification for significant residual impact to Black cockatoo habitat.

Calculation	Score (Area)	Rationale
<b>Conservation significance</b>		
Description	black cockatoo foraging habitat	Clearing of 0.89 hectares of native vegetation that provides significant (moderate quality) foraging habitat for three species of conservation significant black cockatoos. The proposed clearing includes 0.89 hectares of native vegetation that comprises mainly of Blackbutt, Marri, and Jarrah.
Type of environmental value	Species (flora/fauna)	Baudin's cockatoo, Carnaby's cockatoo, and forest red-tailed black cockatoo are listed as a threatened fauna species under the Commonwealth EPBC Act and State BC Act.
Conservation significance of environmental value	Rare/threatened species - endangered	Baudin's cockatoo and Carnaby's cockatoo are listed as Endangered under both the EPBC Act and BC Act. The forest red-tailed black cockatoo is listed as Vulnerable under both the EPBC Act and BC Act. The highest level of conservation significance has been utilised.
Landscape level value impacted		Yes
<b>Significant impact</b>		
Description	black cockatoo foraging habitat	0.89 hectares of native vegetation that comprises 0.69 hectares of blackbutt woodland (secondary foraging habitat) and 0.2 hectares of Marri and Jarrah woodland (primary quality foraging habitat).
Significant impact (hectares)	0.89	The approximate amount of black cockatoo foraging habitat within the proposed clearing area is 0.89 hectares (Harewood, 2024)
Quality (scale)	5.00	The application area comprises predominantly good-quality habitat, with blackbutt woodland providing moderate foraging value and Jarrah–Marri woodland providing high-quality foraging value for black cockatoos. No foraging evidence was recorded during the targeted fauna assessment, however foraging evidence was observed during the department's site visit (DWER, 2025a). Two roost sites but no breeding sites have been recorded within 12 kilometres of the area.
<b>Rehabilitation credit</b>		
Description	0	Rehabilitation of native vegetation within Lot 66 on Deposited Plan 140892 (Crown Reserve 18775) by planting primary foraging quality species Marri and Jarrah.
Proposed rehabilitation (area in hectares)	0.24	The Shire has proposed a rehabilitation area of a 0.24-hectares.
Current quality of rehabilitation site	1.00	Arial imagery and a site visitation conducted by the department (DWER, 2025a) indicate that the area proposed for the rehabilitation, comprises predominantly completely degraded (Keighery, 1994) condition vegetation with regrowth.
Future quality WITHOUT rehabilitation	1.00	The revegetation area is unlikely to significantly improve without active rehabilitation.

Calculation	Score (Area)	Rationale
Future number WITH rehabilitation	5.00	Revegetating with high quality foraging species (Marri and Jarrah) is expected to improve the foraging habitat quality of the rehabilitation area for black cockatoo species.
Time until ecological benefit (years)	17.00	It is expected that primary foraging species planted in these areas will include Marri and Jarrah. Based on available literature, the benefits of revegetating black cockatoo foraging habitat are assumed to become available after approximately 15 years, a conservative estimate informed by Lee et al. (2013), who recorded evidence of foraging on Marri in rehabilitated mine pits aged 8–15 years. An additional two years have been allowed to accommodate the commencement of revegetation within two years of the permit start date.
Confidence in rehabilitation results (%)	0.8	80% confidence that revegetation will achieve objectives.
<b>Offset</b>		
Description	Land acquisition – Banked Offset	Change purpose of Lot 13916 (portion of Reserve 54226) from Gravel and Parkland Rehabilitation to conservation.
proposed offset (area in hectares)	3.24	Area required to counterbalance 100% of the significant residual impacts.
Current quality of offset site	8.00	The banked offset area is assumed to provide high quality foraging habitat for black cockatoos. The offset location has previously been used in two separate offsets, CPS 9333/2 and 9742/1. There are no survey reports for this property, however the OAC report for 9333/1, described the vegetation as “Very Good to Excellent condition vegetation with no current management plans. Proposed site is 20km from the application area and is within the known habitat range for black cockatoos. The department conducted a site visit to the offset location and confirmed high quality black cockatoo foraging habitat (DWER, 2025b).
Future quality WITHOUT offset	8.00	The habitat quality is not considered to change as the has its vesting under parkland rehabilitation and conservation.
Future quality WITH offset	8.00	The quality of the vegetation is not considered to change with the proposed offset area. However, it may increase over time.
Time until ecological benefit (years)	1.00	The reserve is already vegetated and conserved with its vesting, It may take time to formally finalise the banked offset area.
Confidence in offset result (%)	0.9	High confidence that the land acquisition will be undertaken (noting it is a banked offset, land acquisition has already been undertaken).
Duration of offset implementation (maximum 20 years)	20.00	As the offset site has been transferred to the conservation estate, the maximum duration of 20 years is applied.
Time until offset site secured (years)	0.00	Management order over the reserve R54226 was changed on the 24/2/2023.
Risk of future loss WITHOUT offset (%)	20.0%	The area was originally vested for gravel extraction (Gravel and Parkland Rehabilitation).
Risk of future loss WITH offset (%)	5.0%	The offset location in now vested for conservation which has a low risk of loss.

Calculation	Score (Area)	Rationale
Offset ratio (Conservation area only)	N/A	
Landscape level values of offset?	N/A	

**Appendix G. Biological survey**





Figure 8: Evidence of foraging within the southern area of the eastern side of the application area (DWER, 2025a).



Figure 9: Evidence of foraging within the eastern side of the application area, just outside of the application area itself (DWER, 2025a).

## Appendix H. Sources of information

### H.1. GIS databases

Publicly available GIS Databases used (sourced from [www.data.wa.gov.au](http://www.data.wa.gov.au)):

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available

- Soil Landscape Mapping – Systems
- Wheatbelt Wetlands Stage 1 (DBCA-021)

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) – Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

## H.2. References

Commonwealth of Australia (2022), Referral guideline for 3 WA threatened black cockatoo species: Carnaby's Cockatoo, Baudin's Cockatoo and the Forest Red-tailed Black cockatoo. Department of Agriculture, Water and the Environment, Canberra.

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