



## CLEARING PERMIT

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

<b>Purpose Permit number:</b>	CPS 11152/1
<b>Permit Holder:</b>	Department of Housing and Works
<b>Duration of Permit:</b>	From 2 February 2026 to 2 February 2036

### ADVICE NOTE

#### Monetary contribution to the Offsets Fund

The monetary contribution to the Offsets Fund referred to in condition 11 of this permit is intended to contribute towards the purchase and conservation in perpetuity of at least 5.78 hectares of native vegetation that is growing in, or in association with, a wetland containing values that are commensurate with a Conservation Category Wetland in a Good to Very Good (Keighery, 1994) condition on the Swan Coastal Plain.

#### Revegetation and rehabilitation offset

The Project Rehabilitation Plan referred to in condition 12 of this permit are intended to facilitate the *revegetation* and *rehabilitation* of at least 4.02 hectares of native vegetation within Lot 500 on Deposited Plan 69593 (Crown Reserve 35153) and Lot 501 on Deposited Plan 69593 (Crown Reserve 50756) that is within or adjacent to Bush Forever Site 472 and includes at least:

- 2.18 hectares of *native vegetation* that provides significant foraging habitat for Carnaby's cockatoo within Crown Reserve 50756 from a Completely Degraded (Keighery, 1994) condition to a Good (Keighery, 1994) condition;
- 1.73 hectares of native wetland vegetation within 50 metres of the mapped boundaries of the wetlands UFI 7079 and UFI 7069 to a minimum of Very Good (Keighery, 1994) condition.

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 developing the New Youth Detention Facility.

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

Lot 98 on Deposited Plan 71638, Canning Vale

Lot 483 on Plan 10151 (Crown Reserve 35154), Canning Vale

Lot 500 on Deposited Plan 69593 (Crown Reserve 35153), Canning Vale

Nicholson Road reserve (PIN 1136321), Canning Vale

**3. Clearing authorised**

The permit holder must not clear more than 2.77 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 2 February 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. Demarcation of the clearing area**

Prior to undertaking any *clearing* authorised under this permit that is adjacent to other *native vegetation*, the permit holder must demarcate the *clearing* area to avoid inadvertent removal of adjacent *native vegetation*.

**8. Directional clearing**

The permit holder must:

- (a) conduct *clearing* activities in a slow, progressive manner towards adjacent *native vegetation*; and
- (b) allow a reasonable time for fauna present within the area being cleared to move into adjacent *native vegetation* ahead of the *clearing* activity.

**9. Erosion management**

The permit holder must commence construction within three (3) months after undertaking the authorised *clearing* activities to reduce the potential for soil erosion.

## 10. Fauna management

- (a) For a minimum of four (4) nights prior to the commencement of clearing activities authorised under this permit, within the area cross-hatched yellow on Figure 1 of Schedule 1, the permit holder must engage a *fauna specialist* to undertake a pre-clearance trapping and relocation survey, to identify native vertebrate fauna including quenda (*Isoodon fusciventer*).
- (b) The permit holder must engage the *fauna specialist* to trap and relocate *conservation significant fauna*, including quenda, and any incidentally trapped native vertebrate fauna to *suitable habitat*, in accordance with a fauna license pursuant to the *Biodiversity Conservation Regulations 2018*.
- (c) The permit holder must also engage a fauna spotter to traverse the area, cross-hatched yellow on Figure 1 of Schedule 1, ahead of clearing machinery immediately prior to, and for the duration of, clearing activities, to identify the presence of any *conservation significant fauna*.
- (d) Clearing activities must cease in any area where *conservation significant fauna* are identified under condition 10(c) until the individual(s) has been trapped and relocated in accordance with condition 10(b).
- (e) Within two (2) months of undertaking any clearing authorised under this permit within the area cross-hatched yellow on Figure 1 of Schedule 1, the permit holder must provide the results of the pre-clearance trapping and relocation survey in a report to the *CEO*.
- (f) The report prepared in accordance with condition 10(e) must include, but not be limited to:
  - (i) the methodology used to trap and relocate native vertebrate fauna and *conservation significant fauna* under conditions 10(b) and 10(d);
  - (ii) the relevant qualifications of the *fauna specialist* and fauna spotter undertaking identification, trapping, and relocation under conditions 10(a), 10(b) and 10(d);
  - (iii) the species name and number of native vertebrate fauna and *conservation significant fauna* individuals identified under conditions 10(a), 10(b) and 10(d);
  - (iv) the date each native vertebrate fauna and *conservation significant fauna* individual was identified under conditions 10(a), 10(b) and 10(d);
  - (v) the location where each individual referred to in conditions 10(a)-(d) was identified recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
  - (vi) the species name and number of *conservation significant fauna* individuals relocated under conditions 10(b) and 10(d);
  - (vii) the time and date each conservation significant fauna individual referred to under condition 10(b) and 10(d) was relocated;
  - (viii) the species name and number of any other native vertebrate fauna individual(s) relocated;
  - (ix) the location where each *conservation significant fauna* individual or other native vertebrate fauna individual was relocated to, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings or decimal degrees; and

- (x) details pertaining to the circumstances of any death of, or injury sustained by a native vertebrate fauna or *conservation significant fauna* individual.

**11. Offset – Monetary contribution to the Offsets Fund (wetland)**

Prior to undertaking any clearing authorised under this permit and no later than 2 February 2027, the permit holder must provide documentary evidence to the *CEO* that funding of \$46,644.60 has been transferred to the Department of Water and Environmental Regulation for the purpose of establishing or maintaining *native vegetation* as an environmental offset for the clearing activities authorised under this permit.

**12. Offset – Revegetation and rehabilitation requirements**

- (a) Within 12 months of the commencement of *clearing* activities authorised under this permit, and no later than 2 February 2027, the permit holder must submit a Project Rehabilitation Plan to the *CEO* for approval for the *revegetation and rehabilitation* of at least 4.02 hectares of *native vegetation* within the combined areas cross-hatched red on Figure 2 of Schedule 1.
- (b) The Project Rehabilitation Plan must be:
  - (i) in accordance with the *revegetation guideline*; and
  - (ii) prepared by an *environmental specialist*.
- (c) The Project Rehabilitation Plan must include the following:
  - (i) the location/s of the *revegetation and rehabilitation* area/s required under condition 12(a) of this permit, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
  - (ii) *site preparation*;
  - (iii) *weed control*;
  - (iv) *regeneration, direct seeding or planting*, at an *optimal time*;
  - (v) a *vegetation establishment period*;
  - (vi) *rehabilitation* success completion criteria based on selected *reference sites*, including but not limited to target weed cover, target species diversity, target vegetation condition, target density, and target structure;
  - (vii) *remedial actions* to be undertaken if completion criteria are not met;
  - (viii) details of ongoing maintenance and monitoring of the area to be *revegetated and rehabilitated* for a minimum of five (5) years;
  - (ix) timeframes for completion of the activities; and
  - (x) management commitments that will be achieved.
- (d) If the *CEO*, having had regard to conditions 12(b) and 12(c) of this permit, does not approve the Project Rehabilitation Plan, the permit holder must revise and resubmit the Project Rehabilitation Plan within three (3) months of the date of the *CEO*'s decision.
- (e) If the *CEO*, having had regard to conditions 12(b) and 12(c) of this permit, does not approve a revised Project Rehabilitation Plan submitted in accordance with condition 12(d) of this permit, the permit holder must again revise and resubmit the Project Rehabilitation Plan in accordance with condition 12(d) of this permit.



- (f) The permit holder must obtain the approval of the *CEO*, prior to implementing the Project Rehabilitation Plan.
- (g) The permit holder must implement the approved Project Rehabilitation Plan within 12 months of the date of approval by the *CEO*.

### **PART III - RECORD KEEPING AND REPORTING**

#### **13. 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 to demarcate the clearing area in accordance with condition 7;</li> <li>(h) actions taken to undertake directional clearing in accordance with condition 8;</li> <li>(i) actions taken to reduce the potential for erosion in accordance with condition 9;</li> <li>(j) actions taken to implement offsets in accordance with condition 11.</li> </ul>
2.	In relation to the fauna management pursuant to condition 10.	<ul style="list-style-type: none"> <li>(a) actions taken to manage impacts to native vertebrate fauna in accordance with condition 10; and</li> <li>(b) a copy of the <i>fauna specialist</i> report.</li> </ul>
3.	In relation to the <i>revegetation</i> and <i>rehabilitation</i> of offset areas pursuant to condition 12	<ul style="list-style-type: none"> <li>(a) the date/s on which the Project Rehabilitation Plan was approved by the <i>CEO</i>;</li> <li>(b) the size of the areas <i>revegetated</i> and <i>rehabilitated</i>;</li> <li>(c) the date/s on which the <i>revegetation</i> and</li> </ul>

No.	Relevant matter	Specifications
		<p><i>rehabilitation</i> was undertaken;</p> <p>(d) a description of the <i>revegetation</i> activities undertaken;</p> <p>(e) the boundaries of the areas <i>revegetated</i> and <i>rehabilitated</i>, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings;</p> <p>(f) the results of ongoing maintenance and monitoring under the approved Project Rehabilitation Plan;</p> <p>(g) a description of any <i>remedial actions</i> undertaken; and</p> <p>(a) any other actions taken to in accordance with condition 12.</p>

#### 14. Reporting

- (a) The permit holder must provide to the *CEO* on or before 30 June of each calendar year, a written report containing:
  - (i) the records required to be kept under condition 13; and
  - (ii) records of activities done by the permit holder under this permit between 1 January and 31 December of the preceding calendar year.
- (b) If no clearing authorised under this permit has been undertaken, a written report confirming that no clearing under this permit has been undertaken must be provided to the *CEO* on or before 30 June of each calendar year.
- (c) The permit holder must provide to the *CEO*, no later than 90 days prior to the expiry date of the permit, a written report of records required under condition 13, where these records have not already been provided under condition 14(a).

## DEFINITIONS

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

**Table 2: Definitions**

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the <i>Environmental Protection Act 1986</i> .
clearing	has the meaning given under section 3(1) of the EP Act.
condition	a condition to which this clearing permit is subject under section 51H of the EP Act.
conservation significant vertebrate fauna	means those vertebrate fauna taxa listed as threatened or specially protected species under the Biodiversity Conservation Act 2016 (WA), or as priority fauna classes 1, 2, 3, or 4 in the Department of Biodiversity, Conservation and Attractions Threatened and Priority Fauna List for

Term	Definition
	Western Australia (as amended from time to time), and/or listed as threatened under the Environment Protection and Biodiversity Conservation Act 1999.
department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
dieback	means the effect of <i>Phytophthora</i> species on native vegetation.
direct seeding	means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species.
environmental specialist	means a person who holds a tertiary qualification in environmental science or equivalent, and has a minimum of 2 years work experience relevant to the type of environmental advice that an environmental specialist is required to provide under this permit, or who is approved by the CEO as a suitable environmental specialist.
EP Act	<i>Environmental Protection Act 1986</i> (WA)
fauna specialist	means a person who holds a tertiary qualification specializing in environmental science or equivalent, and has a minimum of 2 years work experience in fauna identification and surveys of fauna native to the region being inspected or surveyed, or who is approved by the CEO as a suitable fauna specialist for the bioregion, and who holds an appropriate fauna licence issued under the <i>Biodiversity Conservation Act 2016</i> .
fill	means material used to increase the ground level, or to fill a depression.
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 April to July for undertaking <i>planting</i> and <i>direct seeding</i> .
planted / planting	means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of desired species.
regenerate regenerated regeneration	/ / / means re-establishment of vegetation from in situ seed banks and propagating material (such as lignotubers, bulbs, rhizomes) contained either within the topsoil or seed-bearing mulch.
rehabilitate rehabilitated rehabilitation	/ / / means actively managing an area containing native vegetation in order to improve the ecological function of that area.
reference sites	means nearby sites used to provide baseline data for planning a rehabilitation project. Measurements from fixed reference points or plots where biodiversity components are measured are used to set measurable completion criteria for rehabilitation projects.
remedial action/s	means any activity that is required to ensure successful reestablishment of vegetation to its pre-clearing composition, structure and density, and may include a combination of soil treatments and <i>revegetation</i> .
revegetate / revegetated / revegetation	means the re-establishment of a cover of <i>local provenance</i> native vegetation in an area using methods such as natural <i>regeneration</i> , <i>direct seeding</i> and/or <i>planting</i> , so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.

Term	Definition
revegetation guideline	the document ' <i>A Guide to Preparing Revegetation Plans for Clearing Permits</i> ' (Department of Water and Environmental Regulation, 2018)
suitable habitat	means habitat known to support the native vertebrate fauna species requiring relocation, within the known current distribution of the species and in accordance with advice from Department of Biodiversity, Conservation and Attractions.
site preparation	means management of existing site topsoil and preparation of the finished soil surface, for example by ripping or tilling the soil surface and resspreading site topsoil and chipped native vegetation.
vegetation establishment period	means a period of at least two summers after the <i>revegetation</i> during which time replacement and infill <i>revegetation</i> works may be required for areas in which <i>revegetation</i> has been unsuccessful and involves regular inspections of <i>revegetation</i> sites to monitor the success of <i>revegetation</i> .
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**

  
 Jessica Burton

MANAGER

NATIVE VEGETATION REGULATION

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

9 January 2026



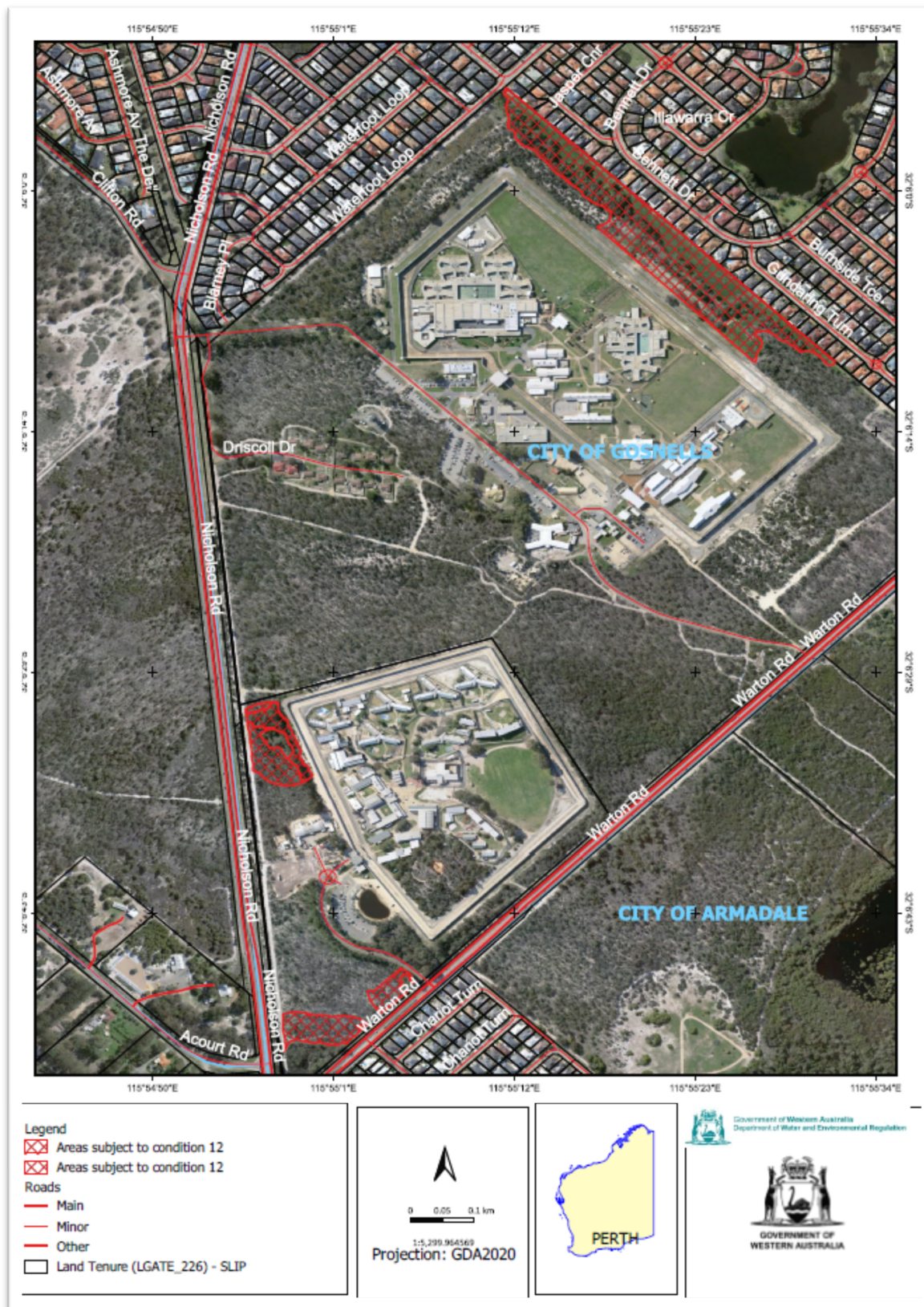
**Schedule 1** - The boundary of the area authorised to be cleared is shown in the map below (Figure 1).



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



The boundary of the area authorised to be cleared is shown in the map below (Figure 2).



**Figure 2: Map of the boundary of the area within which certain conditions apply.**



## Clearing Permit Decision Report

### 1 Application details and outcome

#### 1.1. Permit application details

<b>Permit number:</b>	CPS 11152/1
<b>Permit type:</b>	Purpose permit
<b>Applicant name:</b>	Department of Housing & Works
<b>Application received:</b>	16 July 2025
<b>Application area:</b>	2.77 hectares of native vegetation
<b>Purpose of clearing:</b>	Development of the New Youth Detention Facility
<b>Method of clearing:</b>	Mechanical clearing
<b>Property:</b>	Lot 483 on Plan 10151 (Crown Reserve 35154) Lot 500 on Deposited Plan 69593 (Crown Reserve 35153) Lot 98 on Deposited Plan 71638 Nicholson Road reserve (PIN 1136321)
<b>Location (LGA area/s):</b>	City of Gosnells
<b>Localities (suburb/s):</b>	Canning Vale

#### 1.2. Description of clearing activities

The vegetation proposed to be cleared is distributed across six (6) separate but adjacent areas of native vegetation (see Figure 1, Section 1.5).

The proposed clearing is to facilitate the development of a New Youth Detention Facility, adjacent to the existing Banksia Hill Juvenile Detention Facility. The project is the result of a recent Youth Justice Infrastructure Review and is a high priority for State Government, aiming to resolve the recent challenges in housing highly disruptive youth detainees at the existing Banksia Hill Facility (Emerge, 2025a). The proposed development involves the construction of New Youth Detention Facility buildings and other associated works, including perimeter fencing and a sterile zone, ancillary buildings, carparks and other infrastructure (Emerge, 2025a).

#### 1.3. Decision on application

<b>Decision:</b>	Granted
<b>Decision date:</b>	9 January 2026
<b>Decision area:</b>	2.77 hectares of native vegetation, 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 (DWER) advertised the application for 21 days and one submission was received. Consideration of matters raised in the public submission is summarised in Appendix B.



In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix C), relevant datasets (see Appendix H.1), the findings of a flora and fauna surveys and a site inspection (see 0), the clearing principles set out in Schedule 5 of the EP Act (see Appendix D), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3). The Delegated Officer also took into consideration that the proposed new youth detention centre is an outcome of a recent Youth Justice Infrastructure Review and is required to replace the Unit 18 youth detention facility at Casuarina Prison and accommodate high-risk young people who cannot be safely housed at Banksia Hill. The Delegated Officer considered the public benefit of the proposal, noting that the new 30-bed facility will provide the required supervision and therapeutic support for high-risk individuals in a secure environment, while enabling Banksia Hill to operate as intended without disruptions.

The assessment identified that the proposed clearing will result in:

- the loss of 0.55 hectares of significant foraging habitat for Carnaby's cockatoo (*Zanda latirostris*)
- the loss of 0.90 hectares of significant wetland vegetation that has values that are commensurate with a conservation category wetland (CCW),
- the loss of 2.01 hectares of native vegetation occurring within a Bush Forever site;
- the loss of native vegetation that provides locally significant habitat for quenda (*Isoodon fusciventer*), and
- the potential introduction and spread of weeds and dieback into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values, including local nearby significant wetland vegetation, and other significant remnant vegetation.

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 of the impacts of the proposed clearing, including direct impacts to individual fauna, and the potential to facilitate the introduction of weeds and dieback, can be minimised and managed to be unlikely to lead to an unacceptable risk to environmental values through permit conditioning and implementation of the applicant's avoidance and mitigation commitments (see Section 3.1).

However, impacts to native vegetation that is representative of significant foraging habitat for Carnaby's cockatoo, vegetation growing within Bush Forever and impacts to significant wetland vegetation remained significant even after the application of minimisation and mitigation measures and constitutes a significant residual impact.

Having considered the environmental impacts outlined above, the applicant's implementation of the mitigation hierarchy and planning and other matters (including the consistency of the proposal with the planning framework and the public benefit of the proposed new youth detention centre), the Delegated Officer determined that, on balance, it was appropriate to grant the clearing permit subject to an adequate environmental offset being provided by the proponent, consistent with the *WA Environmental Offsets Policy* (2011) and the *WA Environmental Offsets Guidelines* (2014), to counterbalance the significant residual impacts to native vegetation that is representative of significant wetland vegetation, vegetation growing within a Bush Forever site and foraging habitat for Carnaby's cockatoo (see Section 4).

Given the above, the Delegated Officer decided to grant a clearing permit subject to conditions to:

- avoid, minimise, and reduce the impacts and extent of clearing,
- take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback,
- engage a fauna specialist to undertake a pre-clearing fauna trapping and relocation program for quenda and to engage a fauna spotter to be present for the duration of clearing activities, where clearing must cease in any areas where quenda are identified until the individual/s have been trapped and relocated,
- undertake clearing in a slow progressive manner in one direction towards adjacent vegetation to allow fauna [present to move ahead of the clearing activity];
- undertake clearing in a staged manner to prevent soil erosion;
- provide a monetary contribution to the Part V Offsets Fund to fund the purchase of 5.78 hectares of vegetation that is growing in or in association with a wetland containing values that are commensurate with a CCW in Good to Very Good (Keighery, 1994) condition on the Swan Coastal Plain,
- provide an offset that includes the revegetation and rehabilitation of a total of 4.02 hectares within a Bush Forever site (Crown Reserve 50756) that includes:
  - revegetation 2.18 hectares of native vegetation that provides significant foraging habitat for Carnaby's cockatoo within Crown Reserve 50756 from a Completely Degraded (Keighery, 1994) condition to a Good (Keighery, 1994) condition; and
  - 1.73 hectares of native wetland vegetation within 50 metres of the mapped boundaries of the wetlands UFI 7079 and UFI 7069 to a minimum of Very Good (Keighery, 1994) condition.

## 1.5. Site map(s)



Figure 1 Map of the application area. The areas crosshatched yellow indicates the areas authorised to be cleared under the granted clearing permit.



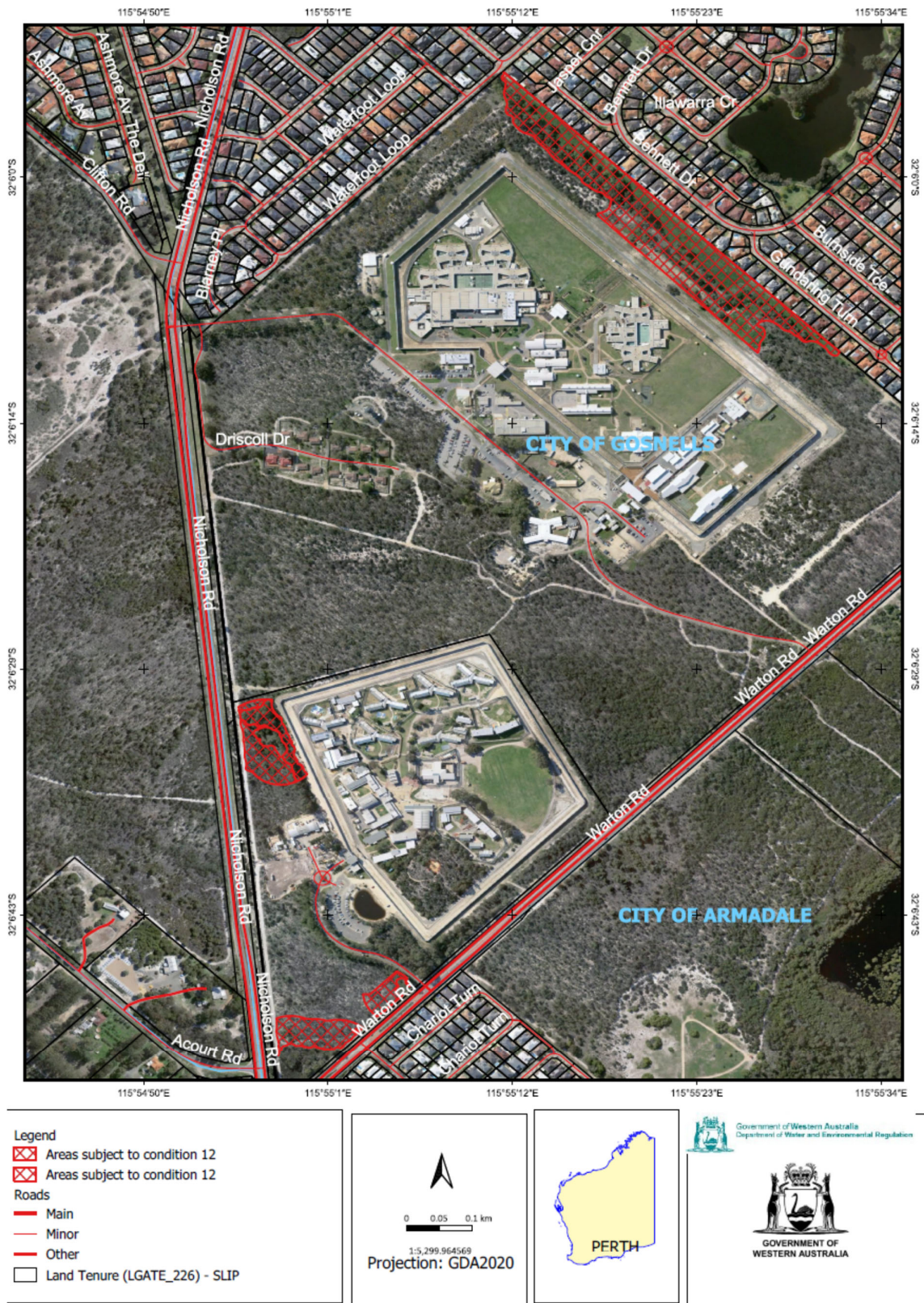


Figure 2 Map of areas subject to conditions. The areas cross-hatched red indicates areas within which specific conditions apply.

## 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)
- *Metropolitan Water Supply Sewerage and Drainage Act 1909* (WA)
- *Planning and Development Act 2005* (WA) (P&D Act)

Relevant policies considered during the assessment include:

- *Environmental Offsets Policy* (2011)
- *State Planning Policy 2.8 - Bushland policy for the Perth Metropolitan Region* (2010) (SPP 2.8)

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, 2016a)
- Technical guidance – *Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment* (EPA, 2020)

### 2.1. Avoidance and mitigation measures

#### Avoidance and minimisation measures

Supporting information provided by the applicant indicates that four design options (see Figure 3 below) were considered for how the New Youth Detention Facility could be accommodated at the existing Banksia Hill Site (Emerge, 2025a):

- Option 1 relates to the application area for CPS 11152/1, comprising a total development footprint of 5.73 hectares within Lot 483 on Plan 10151 (Crown Reserve 35154), Lot 500 on Deposited Plan 69593 (Crown Reserve 35153), Lot 98 on Deposited Plan 71638, and Nicholson Road reserve (PIN 1136321), including 2.77 hectares of native vegetation.
- Option 2 relates to a development footprint of approximately 2.17 hectares directly east of the existing Banksia Hill Facility within Lot 501 on Deposited Plan 69593 (Crown Reserve 50756) and comprises 2.17 hectares of native vegetation.
- Option 3 related to a development footprint of approximately 3.2 hectares directly north of the existing Banksia Hill Facility within Lot 501 on Deposited Plan 69593 (Crown Reserve 50756), including 2.32 hectares of native vegetation.
- Option 4 relates to a development footprint of approximately 1.8 hectares inside the existing Banksia Hill Facility boundary within Lot 500 on Deposited Plan 69593 (Crown Reserve 35153), including 1.35 hectares of native vegetation and comprising an area currently used for cultural programs to enable connection to Country for detainees.



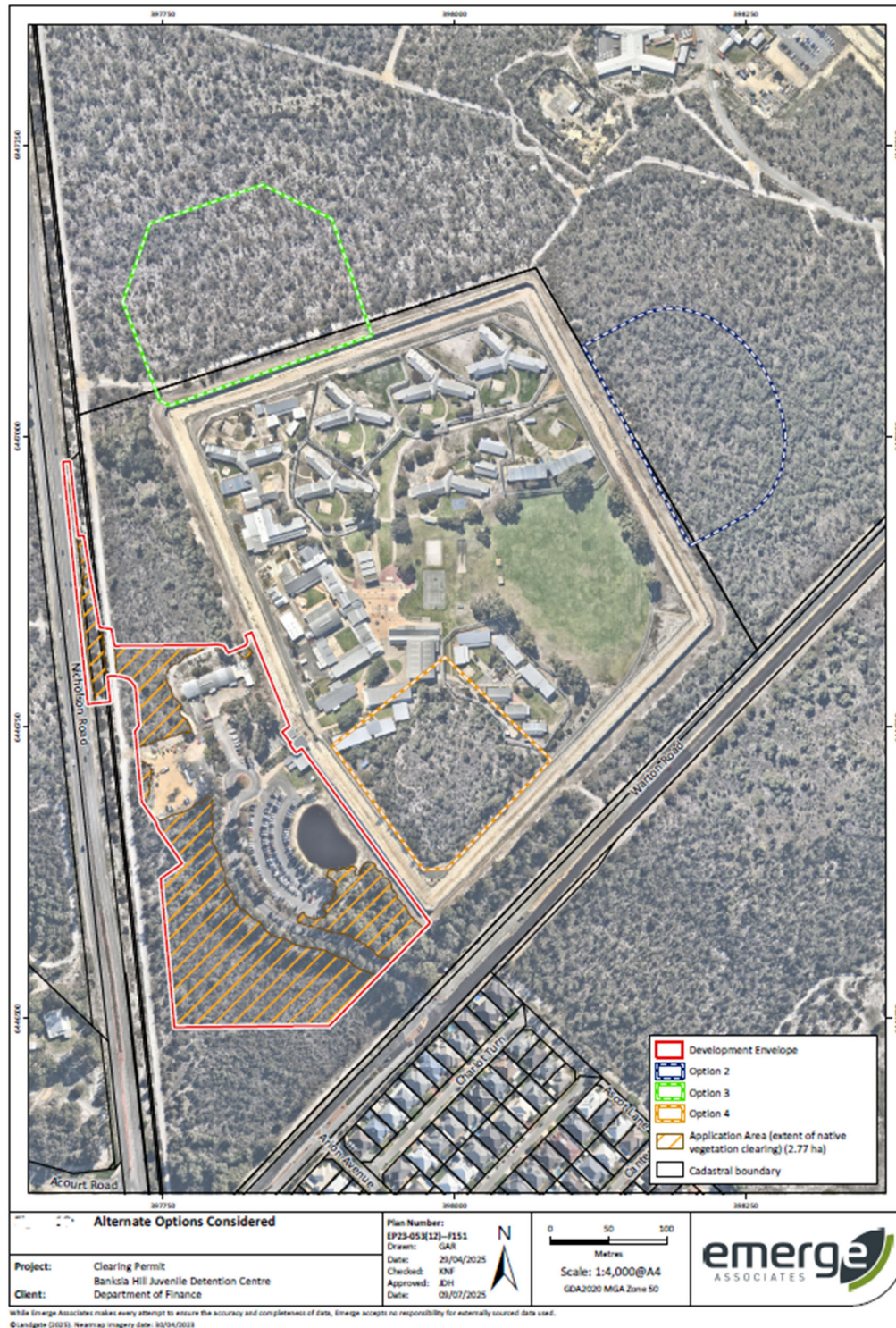


Figure 3. Map of alternative design options considered for the New Youth Detention Facility (Emerge, 2025a).

The design options above were considered by the applicant based on the preferred operational requirements for the facility, as well as the environmental conditions and characteristics of the areas surrounding the Banksia Hill site and the need to avoid and minimise significant clearing impacts (Emerge, 2025a). Whilst Options 2 or 3 were preferred from a purely operational standpoint, these designs would have involved more clearing and more substantial impacts on native vegetation values (Emerge, 2025a). A summary of the environmental impacts of each development option is captured in Table 1 below.

Table 1. Summary of environmental impacts of each development option for the New Youth Detention Facility (Emerge, 2025a).

Values	Option 1 (CPS 11152/1)	Option 2	Option 3	Option 4
Native vegetation extent	2.77 ha	2.17 ha	2.32 ha	1.35 ha
Bush Forever extent	2.01 ha	2.17 ha	2.32 ha	0 ha
Vegetation Condition (Keighery, 1994)	<ul style="list-style-type: none"> <li>2.22 ha in Good condition</li> <li>0.36 ha in Very Good condition</li> </ul>	All Excellent condition	All Good condition	<ul style="list-style-type: none"> <li>0.83 ha in Very Good condition</li> <li>0.52 ha in Good condition</li> </ul>
Significant ecological communities	0.36 ha of FCT22 PEC	2.17 ha of Banksia Woodland TEC/PEC	2.32 ha of Banksia Woodland TEC/PEC	1.35 ha of Banksia Woodland TEC/PEC
Significant flora species	None	None	751 <i>Poranthera moorokatta</i> (P2) individuals	None
Significant flora habitat (potential)	None	<i>Caladenia huegelii</i> (CR)	<ul style="list-style-type: none"> <li><i>Caladenia huegelii</i> (CR)</li> <li><i>Poranthera moorokatta</i> (P2)</li> </ul>	None
Fauna habitat	<ul style="list-style-type: none"> <li>0.55 ha of black cockatoo foraging habitat.</li> <li>Habitat for Quenda</li> </ul>	<ul style="list-style-type: none"> <li>2.17 ha of black cockatoo foraging habitat</li> <li>Potential habitat for <i>Leioproctus douglasiellus</i></li> <li>Potential habitat for <i>Neopasiphae simplicior</i></li> <li>Potential habitat for <i>Idiosoma sigillatum</i></li> <li>Potential habitat for <i>Synemon gratiosa</i></li> </ul>	<ul style="list-style-type: none"> <li>2.32 ha of black cockatoo foraging habitat</li> <li>Potential habitat for <i>Leioproctus douglasiellus</i></li> <li>Potential habitat for <i>Neopasiphae simplicior</i></li> <li>Potential habitat for <i>Idiosoma sigillatum</i></li> <li>Potential habitat for <i>Synemon gratiosa</i></li> </ul>	<ul style="list-style-type: none"> <li>1.35 ha of black cockatoo foraging habitat</li> <li>Potential habitat for <i>Leioproctus douglasiellus</i></li> <li>Potential habitat for <i>Neopasiphae simplicior</i></li> <li>Potential habitat for <i>Idiosoma sigillatum</i></li> <li>Potential habitat for <i>Synemon gratiosa</i></li> </ul>
Wetland extent	0.90 ha	0 ha	0 ha	0 ha

In comparing the development options, the applicant determined that Option 1 was preferred, given it avoided significant environmental impacts to the extent possible, while still accommodating the operational needs for the facility (Emerge, 2025a).

### Mitigation measures

Supporting information provided by the applicant notes that clearing activities will be managed in accordance with an Environmental Management Plan (EMP) and Wetland Management Plan (WMP) prepared to support a development application (Emerge, 2025a). The applicant has advised that the EMP and WMP will involve the following procedures to mitigate potential impacts to fauna and vegetation:

- Clearly defining the extent of the clearing area before any clearing activities commence,
- Identifying further areas of vegetation retention as design is finalised and construction progresses,
- Conducting pre-clearing fauna inspection to identify potential fauna interactions,
- A trapping program to capture and translocate small to medium sized (translocatable) native fauna, if such fauna are present,
- A fauna spotter to be present during clearing to direct and manage works to avoid impacts to fauna,
- Implementation of hygiene protocols during the clearing and construction process to appropriately manage construction to prevent potential spread of weeds, dieback and feral animals into areas of retained vegetation. This will include:
  - Vehicles, machinery, and personnel to be free of mud/soil and plant material upon entering the site. Inspections to be completed prior to works commencing.
  - Minimising clearing and earthworks during wet conditions.
  - Using landscaping species not identified as weeds.
- Ensuring the project is maintained in a clean and tidy manner to ensure feral and other species are not attracted to the site. Waste material is to be disposed of appropriately through waste services and/or to licenced landfill during construction and as part of ongoing operation, and

- Undertaking ongoing monitoring and weed control in areas of native vegetation surrounding the application area (specifically associated with wetland core areas and associated buffer vegetation) during and post construction activities (Emerge, 2025a).

## Conclusion

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values to the extent possible.

However, after consideration of avoidance and mitigation measures, it was determined that an offset to counterbalance the significant residual impacts to wetland, Bush Forever and fauna values was necessary. In accordance with the Government of Western Australia's *Environmental Offsets Policy* and *Environmental Offsets Guidelines*, these significant residual impacts have been addressed through the conditioning of environmental offset requirements on the permit. The nature and suitability of the offsets provided are summarised in Section 4

## 2.2. 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 that the impacts of the proposed clearing present a risk to biological values (fauna, flora, and ecological communities), significant remnant vegetation, conservation areas, and land and water resources (wetland, land degradation, and water quality). 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.

### 2.2.1. Biological values (fauna) - Clearing Principles (a) and (b)

#### Assessment

Noting the site characteristics (see Appendix C), the findings of basic fauna and targeted black cockatoo habitat assessments (Emerge, 2025b; 2024a), a targeted native bee survey (Invertebrate Solutions, 2024), and the habitat preferences of the conservation significant fauna species recorded in the local area (10-kilometre radius), the application area is considered to contain suitable habitat for the following fauna species:

- *Calyptrorhynchus banksii naso* (forest red-tailed black cockatoo) (listed as Vulnerable under the BC Act and EPBC Act),
- *Idiosoma sigillatum* (Swan Coastal Plain shield-backed trapdoor spider) (listed as Priority 3 by DBCA),
- *Isodon fusciventer* (Quenda) (listed as Priority 4 by DBCA),
- *Leioproctus contrarius* (Native short-tongued bee) (listed as Priority 3 by DBCA),
- *Leioproctus douglasiellus* (Native short-tongued bee) (listed as Endangered under the BC Act and Critically Endangered under the EPBC Act),
- *Lerista lineata* (Perth slider) (listed as Priority 3 by DBCA),
- *Neelaps calonotos* (Black-striped burrowing snake) (listed as Priority 3 by DBCA),
- *Neopasiphae simplicior* (Native short-tongued bee) (listed as Endangered under the BC Act and Critically Endangered under the EPBC Act),
- *Notamacropus irma* (Western brush wallaby) (listed as Priority 4 by DBCA),
- *Zanda baudinii* (Baudin's cockatoo) (listed as Endangered under the BC Act and EPBC Act), and
- *Zanda latirostris* (Carnaby's cockatoo) (listed as Endangered under the BC Act and EPBC Act).

For the purposes of this assessment, Baudin's cockatoo, Carnaby's cockatoo and forest red-tailed black cockatoo will be collectively referred to as black cockatoo species.

## Black cockatoo species

### Breeding and roosting habitat

Black cockatoo species are known to nest in hollows of live and dead trees, including marri, jarrah (*Eucalyptus marginata*), karri (*Eucalyptus diversicolor*), wandoo (*Eucalyptus wandoo*), tuart (*Eucalyptus gomphocephala*), flooded gum (*Eucalyptus rudis*), 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 500 millimetres for most tree species (Commonwealth of Australia, 2022). Habitat trees that provide potential breeding habitat may also represent suitable roosting habitat for black cockatoo species.



Targeted black cockatoo habitat assessments identified that the application area contains one planted tuart tree of a suitable DBH to produce nesting hollows and is considered a potential breeding tree (Emerge, 2024a). However, this tree did not contain hollows suitable for use by black cockatoo species (Emerge, 2024a). Therefore, the proposed clearing will not result in the loss of current breeding habitat for black cockatoo species. The large, planted tuart tree within the application area may also provide suitable roosting habitat for black cockatoos.

Roosting is typically noted to occur within suitable trees close to an important water source and within an area of quality foraging habitat (Commonwealth of Australia, 2022). The application area is located in close proximity to a manmade dam and contains primary foraging habitat, making it a suitable location for roosting. A total of 21 roosting sites has been recorded within the local area with the closest confirmed roosting site occurs approximately 400 metres from the application area, according to available databases. No evidence of roosting within the application area was observed during the fauna surveys (Emerge, 2024a). Given this and that only one planted tuart tree that may provide suitable roosting habitat occurs within the application area, the proposed clearing is not considered to result in the loss of current roosting habitat for black cockatoo species.

#### Foraging habitat

Black cockatoo species are noted to forage on a range of plant species, with the primary foraging resources varying between species (Commonwealth of Australia, 2022). Carnaby's cockatoos forage on the seeds, nuts, and flowers of a variety of plants, including Proteaceous species (*Banksia* spp., *Hakea* spp., and *Grevillea* spp.), as well as Eucalyptus species and marri (Valentine and Stock, 2008). On the Swan Coastal Plain, it is noted that *Banksia* species are the most important natural food source for Carnaby's cockatoo, followed by marri (Groom, et al., 2014). 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). Baudin's cockatoos primarily feed on the seeds of marri, but may also forage on the seeds of jarrah and Proteaceous species (DEC, 2008).

Based on the fauna and black cockatoo habitat assessments (Emerge, 2025b; 2024a), the application area contains primary and secondary foraging habitat for black cockatoos (Table 2).

Table 2. Primary and secondary foraging habitat for black cockatoos (Emerge, 2025b)

Foraging habitat	CBC (ha)	BBC (ha)	FRTBC (ha)
Primary native	0.52	0	0.44
Secondary native	0.03	0.09	0.03
Total	0.55	0.09	0.47

The proposed clearing will impact on 0.47 ha of planted vegetation that provides foraging habitat for Forest red-tailed black cockatoo (FRTBC). Based on the available information from the black cockatoo habitat assessment (Emerge, 2024a), the planted foraging habitat for Forest red-tailed black cockatoo within the application area is in Good condition. The majority of the foraging habitat within the application area is primary foraging habitat in the form of planted marri trees.

Under the definition of 'native vegetation' provided in the *Environmental Protection Act 1986* (EP Act), vegetation that has been intentionally sown or planted is not considered as native vegetation. Accordingly, for the purposes of this application, any planted vegetation has been excluded from the assessment. Therefore, it is considered that no native FRTBC foraging habitat will be impact on by the proposed clearing.

According to the fauna and habitat assessments (Emerge, 2024a) the total foraging habitat available within the application area for Baudin's cockatoo is 0.09 ha of secondary native foraging species. Given the small amount of available foraging habitat and that the application area occurs at the northwest extent of this species range, it is not considered for the proposed clearing to impact significant foraging habitat for this species.

Critical habitat for Carnaby's cockatoo is defined as any habitat that provides feeding, watering, regular night roosting, and potential for breeding for Carnaby's cockatoo (DPAW, 2013). Foraging habitat within 12 kilometres of a nesting site and six kilometres of a roosting site is also of particular importance in supporting populations (Commonwealth of Australia, 2022; Le Roux, 2017; Glossop, et al., 2011; DPAW, 2013; DEC, 2008).

As the application area comprises primary foraging habitat on the Swan Coastal Plain, it meets the definition of critical habitat for Carnaby's cockatoo species. While there are eight potential breeding sites within 13 kilometres of the application area, the closest confirmed breeding site is approximately 18 kilometres away and unlikely to be supported by the foraging habitat with the application area. However, according to available databases, there are five confirmed roost sites within six kilometres of the application area, the closest being 400 metres away. Evidence of foraging by Carnaby's cockatoos was also observed within the application area during the habitat assessment, indicating current use by local flocks (Emerge 2024a). Therefore, the application area is likely to support foraging by local roosting populations of Carnaby's cockatoo.

While it is acknowledged that the application area represents less of 0.01 per cent of foraging habitat within six kilometres of the confirmed roosting sites, the cumulative loss of critical habitat on the Swan Coastal Plain represents a significant risk to local populations. The clearing of foraging habitat on the Swan Coastal Plain is also identified as a key threatening process for Carnaby's cockatoo, with the main factor limiting population growth of Carnaby's cockatoo and ensuring adult survival related directly to bottlenecks in and the ongoing removal of food resources on the Swan Coastal Plain (EPA, 2019; Williams, et al., 2017; Groom, 2015; DPAW, 2013; Stock, et al., 2013). Noting the cumulative loss of foraging habitat on the Swan Coastal Plain and ongoing threats such as land clearing and fragmentation, weed invasion, and dieback in the region, the clearing of 0.55 hectares of critical habitat supporting roosting flocks represents a significant residual impact to black cockatoo foraging habitat.

### **Other avian fauna species**

#### *Fork-tailed swift*

The fork-tailed swift is an aerial, migratory species that is most often seen over inland plains and sometimes above open areas, foothills or in coastal areas. Sometimes occurs over settled areas, including towns, urban areas and cities. The application area may provide suitable dispersal habitat for this species. Noting that this species is a highly mobile species, this species is likely to be transient in the application area only and it is unlikely that the application area represents significant habitat.

#### *Peregrine falcon*

The peregrine falcon typically nests on rocky ledges in tall, vertical cliff faces and gorges, or in tall trees associated with drainage lines, and can hunt in a range of habitat types including timbered watercourses, riverine environments, wetlands, plains, open woodlands, and pylons and spires of buildings (Australian Museum, 2019). Given the application area contains remnant woodland, it may provide suitable dispersal and hunting habitat for the peregrine falcon. Noting that the peregrine falcon is a highly mobile species with a large home range that does not rely on specialist niche habitats, the species is likely to be transient in the application area only and it is unlikely that the application area represents significant habitat for the species.

### **Ground-dwelling vertebrate fauna species**

#### *Quenda*

Quenda are ground-dwelling marsupials, typically associated with forest or woodlands near watercourses, where understorey consists of dense scrub and leaf litter is abundant (DEC, 2012). An individual quenda was observed utilising the wetland vegetation within the application area during a fauna survey and observed evidence of quenda in the form of diggings were also observed (Emerge, 2025b). Noting the extent of adjacent vegetation within the broader site and the number of records in the local area, it is not considered for the proposed clearing to have locally or regionally significant impacts on quenda. However, the proposed clearing may result in direct impacts to individuals present at the time of clearing and will fragment the south-eastern patch of native vegetation, isolating it from other areas of native vegetation. If quenda disperse into the south-eastern patch of native vegetation at the time of clearing, it may cause the patch to exceed carrying capacity and may result in the indirect death of individuals through lack of suitable habitat resources.

In order to mitigate impacts to the local quenda population and reduce the likelihood of direct impacts to individuals, the applicant will implement a salvage relocation program, involving pre-clearing trapping and relocation of quenda for a minimum of four nights immediately prior to the commencement of clearing activities. The salvage relocation program will be undertaken in accordance with a fauna license pursuant to the *Biodiversity Conservation Regulations 2018*, with a suitable site for relocation to be determined by DBCA. This commitment will be conditioned on the clearing permit and is consistent with the management recommendations provided by DBCA (DBCA, 2025). The applicant will also be required to engage a fauna specialist to traverse the clearing area ahead of the clearing machinery for the duration of clearing, and clearing must cease in any area where Quenda are identified, until the individual/s have been trapped and relocated.

### *Reptiles*

While no individuals have been observed in biological surveys of the application area, two reptile species, (the Perth slider and black-striped burrowing snake) are considered to be possibly present within the Banksia woodland habitat type which occurs to the north of the application area (Emerge, 2024a). Perth slider is largely restricted to the Swan Coastal Plain and is known to occur in several bush remnants near Perth, predominantly in pale sands on coastal plains with Banksia or Eucalyptus species (TSSC, 2020). The black-striped burrowing snake is also largely restricted to the Swan Coastal Plain and Perth region, typically occurring in Banksia woodlands atop soft calcareous sand and, to a lesser extent, coastal heathlands and shrublands (He, 2021).

Both species likely have poor dispersal abilities and are reliant on litter ground cover and other debris for shelter, making them vulnerable to fire, predation, and weed infestation which may have an adverse effect on the microhabitats required by fossorial species (He, 2021; TSSC, 2020). Given its susceptibility to these threats, both species rarely occupy small urban bushland remnants (He, 2021; TSSC, 2020). Given the lack of Banksia woodland habitat type within the application area, it is not considered for the application area to provide significant habitat for these two reptile species.

It is also acknowledged that the salvage relocation program employed for quenda may incidentally capture other ground-dwelling fauna species. The permit conditioning will require any other incidentally trapped native fauna to be relocated in accordance with a fauna license pursuant to the Biodiversity Conservation Regulations 2018, with a suitable site for relocation to be determined by DBCA.

### *Western brush wallaby*

Multiple records of the western brush wallaby (P4) have been recorded within the local area. This species occurs within dry sclerophyll forests, Banksia woodlands and shrublands and favours dense vegetation cover. Suitable habitat for this species is considered to occur within the application area and the surrounding remnant vegetation within Bush Forever site 472 and nearby Jandakot Regional Park. The proposed clearing of 2.77 hectares is not considered likely to significantly impact the conservation status of this species. Given the highly mobility of this species, impacts to individuals during clearing can be managed through directional clearing which will allow individuals to move northwards into adjacent vegetation ahead of clearing activities.

### **Invertebrate fauna species**

#### *Trapdoor spider*

The Swan Coastal Plain shield-backed trapdoor spider is associated with banksia woodland and heathland in sandy soils on the Swan Coastal Plain and is largely restricted to bushland remnants in the Greater Perth region (Rix et al., 2018). No banksia woodland vegetation occurs within the application area however the application area does occur on sandy soils. It is possible that the application area provides some suitable habitat for the Swan Coastal Plain shield-backed trapdoor spider. However, noting the lack of preferred banksia woodland, it is considered unlikely that the application area represents significant habitat for the Swan Coastal Plain shield-backed trapdoor spider or would be necessary for the ongoing maintenance of this species in the region.

#### *Native Bees*

According to the desktop assessment, three native short-tongued bee species have potential habitat based upon climatic and broad vegetation modelling, within the application area:

- *Hesperocolletes douglasi* – Critically Endangered
- *Leioproctus douglasiellus* – Critically Endangered
- *Neopasiphae simplicior* – Critically Endangered

A targeted field study was undertaken within the application area and surrounding vegetation ((Invertebrate Solutions Pty Ltd, 2024). No conservation significant bee species were recorded, and no burrows of native bees were observed within the survey area (Invertebrate Solutions Pty Ltd, 2024). The small area of melaleuca woodland vegetation within the application area (0.36ha) and the banksia woodland surrounding the application area was determined to potentially provide intermittent foraging habitat for *Leioproctus douglasiellus* during peak flowering periods. However, considering the results of the targeted survey, it is considered that the application area does not form core habitat for any of the three bee species and all three species are considered not likely to occur within the application area (Invertebrate Solutions Pty Ltd, 2024).

## Ecological linkages

As discussed under Section 3.2.1, the application area is likely to be contributing to north-south ecological linkages within Bush Forever Site 472, given the fragmented nature of native vegetation in the local area and separation from adjacent properties by major roads. However, given native vegetation within the application area is already fragmented by existing infrastructure within the Banksia Hill Detention Centre and does not provide a continuous north-south linkage at present, it is unlikely that the proposed clearing will significantly impact vegetation connectivity in the local area.

## Conclusion

Based on the above assessment, the proposed clearing will result in the loss of 0.55 hectares of significant foraging habitat for Carnaby's cockatoo and will impact habitat for Quenda. The management measures proposed by the applicant are considered adequate to mitigate impacts to the local quenda population and reduce the likelihood of direct impacts to individuals. However, for the reasons set out above, it is considered that the impacts of the proposed clearing to significant foraging habitat for Carnaby's cockatoo constitutes a significant residual impact.

In accordance with the Government of Western Australia's *Environmental Offsets Policy* (2011) and *Environmental Offsets Guidelines* (2014), this significant residual impact has been addressed through the conditioning of environmental offset requirements, as outlined under Section 4.

## Conditions

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

- Fauna management, which requires the applicant to engage a fauna specialist to undertake a pre-clearing fauna trapping and relocation program for quenda. The applicant is also required to engage a fauna spotter to be present for the duration of clearing activities, and clearing must cease in any areas where quenda are identified until the individual/s have been trapped and relocated,
- Directional clearing to allow fauna to move to adjacent vegetation ahead of clearing activities; and
- Offset – revegetation and rehabilitation of a total of 2.18 hectares of native vegetation that provides significant foraging habitat for Carnaby's cockatoo with Crown Reserve 50756 from a completely degraded (Keighery, 1994) condition to a Good or better (Keighery, 1994) condition.

### 2.2.2. Biological values (fauna) - Clearing Principles (a) and (c)

#### Assessment

The application area and surrounding vegetation within Lots 500 on 501 on Deposited Plan 69593 (Crown Reserves 35153 and 50756) have been subject to a flora and vegetation assessment involving targeted searches and quadrat/relevé sampling on 13 occasions between July 2023 and May 2024 (Emerge, 2024b). An additional reconnaissance survey was undertaken in June 2025 for vegetation adjacent to Nicholson Road (Emerge, 2025b). One Priority 2 flora species (*Poranthera moorokatta*) was identified throughout the surrounding vegetation within several Banksia woodland (BaBmAHCf, BaBmBeSi, and BaBmDbPc) vegetation types (Emerge, 2024b). However, no threatened or priority flora species were identified within the application area itself or the vegetation types associated with the application area during these surveys.

The majority of conservation significant flora species known from the local area are either perennial species or are annual species that would have been flowering at the time of the flora surveys. Therefore, given the survey timing and effort, these species are likely to have been identified during the flora and vegetation surveys if they are present within the application area.

However, although being perennial species, five of the threatened flora species recorded in the local area have periods of dormancy in which they retreat into root systems or persist as underground tubers. Flowering of these species is typically linked to climatic factors such as rainfall or are triggered by events such as fire, meaning they may lay dormant in the seed bank for several seasons until conditions are suitable. Noting that the targeted flora surveys have only been conducted across one spring flowering season, there is the potential for the following five threatened flora species to occur within the application area:

- *Byblis gigantea* (listed as Endangered under the BC Act),
- *Caladenia huegelii* (listed as Critically Endangered under the BC Act and Endangered under the EPBC Act),
- *Diuris drummondii* (listed as Endangered under the BC Act and Vulnerable under the EPBC Act),
- *Diuris purdiei* (listed as Endangered under both the BC Act and EPBC Act), and
- *Thelymitra variegata* (listed as Critically Endangered under the BC Act).

### ***Byblis gigantea***

*Byblis gigantea* is a small distinctive carnivorous perennial sub-shrub that typically grows in shallow sands over sandy clay in open low *Pericalymma ellipticum* heathland on the margins of winter-wet swamps and depressions (DBCA, 2025a). This species produces pink to mauve flowers from late October to early January, with peak flowering between early November and mid-December (DBCA, 2025a). After flowering, *B. gigantea* often retreats into its underground fleshy root system and is usually dormant from January to April/May depending on seasonal rainfall (DBCA, 2025a). The MpAcRi and CfRi vegetation types within the application area may provide suitable habitat for *B. gigantea*.

DBCA (2025a) advised that *B. gigantea* is a fire-ephemeral species with seed germination strongly stimulated by smoke and the species may lay dormant in the seedbank in the absence of fire. Based on available information, there were no fire events within the application area for at least 10 years prior to the 2023-2024 flora surveys, but a bushfire has since affected part of the application area within the MpAcRi vegetation type in September 2024 (DBCA, 2025a). Therefore, it is possible that seed may have germinated in this part of the application area since the targeted surveys (DBCA, 2025a).

DBCA (2025a) advised that the species is known from 13 subpopulations on the Swan Coastal Plain (SCP) and another 20 subpopulations near Brookton Highway in the Darling Range. One of these subpopulations occurs within the Acourt Road Bushlands, adjacent to the application area, but plants have not been recorded at this location since 2006 and they are presumed extinct (DBCA, 2025). All known locations of *B. gigantea* were surveyed in 2023, with no live plants recorded for any of the SCP sites (DBCA, 2025). In 2024, the population size of *B. gigantea* was estimated at 4,500 mature individuals, although population size is thought to fluctuate in response to fire (DBCA, 2025a). The species was previously thought to be widespread and common on the SCP, but urban expansion in the Perth Metropolitan Area and altered hydrology have resulted in severe habitat loss and possible population size reduction, leading to the species being upgraded from Priority 3 to Endangered in 2024 (DBCA, 2025a).

Noting the above and the lack of recent records on the SCP, if *B. gigantea* is present within the application area, the subpopulation would be considered significant (DBCA, 2025a).

To provide further confidence as to the presence or absence of *B. gigantea* within the application area, DBCA undertook targeted post-fire surveys in November and December 2025. This survey did not identify any *B. gigantea* individuals within the bushfire affected part of the application area (DBCA, 2025b). Given this, it is considered unlikely for the application area to support a significant population of this threatened species given that no individuals were detected in the post fire targeted survey.

While the application area may contain suitable habitat for this species, given that the species was not identified in the post fire surveys and given the relatively small area of potential suitable habitat within the application area (2.00ha - approximately 37% of suitable habitat on site), the proposed clearing is unlikely to impact the overall conservation of this species.

### ***Caladenia huegelii***

*Caladenia huegelii* is a perennial herb with green, cream, and red-maroon flowers, associated with woodlands dominated by jarrah, *Banksia* spp., or marri, over low heath or shrub of *Hibbertia* spp., *Sitrlingia latifolia*, *Hypcolymma robustum*, *Adenanthos cuneatus*, *Conostylis* spp., and grass trees, within deep grey-white sandy soils (DEC, 2009). *C. huegelii* flowers from September to October and, outside of this period, persists as a dormant underground tuber (DEC, 2009). The CcEg vegetation type within the application area may provide suitable habitat for *C. huegelii*.

Advice received from DBCA (2025a) states that surveys to detect the presence of *C. huegelii* should be undertaken over two or more flowering seasons, as orchids may lay dormant for several years depending on climatic factors and noting that few plants flower in low rainfall years. As targeted surveys were only undertaken during one flowering season, the presence of *C. huegelii* cannot be ruled out (DBCA, 2025a).

While it is possible that *C. huegelii* occurs within the application area, it is acknowledged that the species tends to favour areas of dense undergrowth (DEC, 2009) and that the understorey of the CcEg vegetation type within application area has been highly disturbed and weed infested. There are also areas of *Banksia* woodland vegetation in better condition within the surrounding vegetation that are likely to provide better quality habitat for the species. Given it was not detected in the surveys, DBCA (2025a) advised that the species is unlikely to occur in large numbers within the application area and the proposed clearing is unlikely to significantly impact the ongoing conservation of the species.

### ***Diuris drummondii***

*Diuris drummondii* is a perennial herb with yellow flowers, occurring on sandy clay soils in low-lying seasonally wet flats, depressions and swamps (DEWHA, 2008a). *D. drummondii* flowers between November and January, persisting as a dormant underground tuber outside of this period (DEWHA, 2008a). The MpAcRi and CfRi vegetation types within the application area may provide suitable habitat for *D. drummondii*.

DBCA (2025a) indicated that *D. drummondii* often only flowers for a few years following a fire and, if present within the application area, likely wouldn't have been identified during 2023-2024 flora surveys due to the site's fire history. However, advice from DBCA (2025) states that herbarium records of this species in the local area are relatively old (1959 and 1980) and there are no recent records or confirmed subpopulations within 10-kilometres of the application area. The species is known from 49 subpopulations and approximately 14,000 plants (DBCA, 2025a).

Given the age of records in the local area, whilst it is possible that *D. drummondii* is present within the application area, DBCA (2025a) advised that the species is not considered highly likely to occur. Further, noting the estimated number of individuals across a relatively larger range, the impacts of the proposed clearing are unlikely to be significant to the conservation of the species even if present (DBCA, 2025a).

### ***Diuris purdiei***

*Diuris purdiei* is a perennial herb which grows on grey-black sandy soils in winter wet swamps on the SCP between Perth and Yarloop (DEWHA, 2008b). *D. purdiei* produces yellow flowers between September and October and otherwise persists as a dormant underground tuber (DEWHA, 2008b). The MpAcRi and CfRi vegetation types within the application area may provide suitable habitat for *D. purdiei*.

DBCA (2025a) advised that the species generally only flowers after fire and wouldn't have been detected during the 2023-2024 flora surveys, if present. Given a bushfire affected part of the application area within the MpAcRi vegetation type in September 2024, it is possible that seed may have germinated in this part of the application area since the targeted surveys (DBCA, 2025a).

*D. purdiei* is known from 23 subpopulations and approximately 1,100 plants, including four subpopulations within five kilometres of the application area (DBCA, 2025a). Noting that live plants have not been recorded at the nearby subpopulations since the 1980s, the presence of *D. purdiei* within the application area would be regionally significant (DBCA, 2025a).

To provide further confidence as to the presence or absence of *D. purdiei* within the application area, DBCA undertook targeted post-fire surveys in October 2025. This survey did not identify any *D. purdiei* individuals within the bushfire affected part of the application area (DBCA, 2025c). Given this, it is considered unlikely for the application area to support a significant population of this threatened species given that no individuals were detected in the post fire targeted survey.

### ***Thelymitra variegata***

*Thelymitra variegata* is a perennial herb recorded on sandy soils in woodlands and shrubland in near-coastal areas on the SCP (DBCA, 2025a). The species produces striking orange, red, purple and pink flowers between June and September, persisting as a dormant underground tuber outside of this period (DBCA, 2025a). As a result, *T. variegata* may not have been identified in the flora surveys, if present.

Advice from DBCA (2025a) indicates that *T. variegata* numbers have been severely reduced due to the impact of urbanisation and rural development, leading to only four remaining subpopulations and very few mature individuals when it was assessed by the Threatened Species Scientific Committee (TSSC) in 2022. DBCA (2025a) advised that local herbarium records of *T. variegata* are historical (1959 and older) and, as there are no recent records of this species within 10-kilometres of the application area, it is not considered likely to occur within the application area.

### **Conclusion**

Based on the above assessment, the proposed clearing is not likely to impact on significant habitat for threatened flora species nor impact the overall conservation of these species or their persistence in the local area.

### **Conditions**

No flora management conditions required.

### 2.2.3. Biological values (fauna) - Clearing Principles (a) and (d)

#### Assessment

Noting the site characteristics (see Appendix C), the distribution and extent of existing records, and flora and vegetation assessments of the application area (Emerge, 2025b; Emerge, 2024b), two conservation significant ecological communities are considered likely to occur within the application area:

- *Banksia illicifolia* woodlands, southern Swan Coastal Plain ('floristic community type 22') (FCT 22) (listed as Priority 3 in WA by DBCA and considered part of the Banksia Woodlands ecological community listed as Endangered under the EPBC Act),
- Banksia Woodlands of the Swan Coastal Plain ecological community (Banksia Woodlands) (listed as Priority 3 in WA by DBCA and listed as Endangered under the EPBC Act), and
- Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain ecological community (Tuart Woodlands) (listed as Priority 3 in WA by DBCA and listed as Critically Endangered under the EPBC Act).

Noting the multiple listings, for the purposes of this assessment, the Banksia Woodlands ecological community will be referred to as the Banksia Woodlands TEC and the Tuart Woodlands ecological community will be referred to as the Tuart Woodlands TEC.

#### FCT 22 PEC and Banksia Woodlands TEC

According to the approved conservation advice for the Banksia Woodlands TEC, the key diagnostic criterion for the TEC includes the presence of at least one of the four diagnostic *Banksia* species, and distinct low woodland to forest structure comprising a canopy co-dominated by *Banksia attenuata* or *Banksia menziesii*, where the emergent tree layer often includes marri, jarrah, or tuart, over a diverse shrub or herbaceous understorey (DoEE, 2016). The community typically occurs on well drained, low nutrient soils on sandplain landforms, particularly deep Bassendean and Spearwood sands and occasionally on Quindalup sands and is also common on sandy colluvium and aeolian sands of the Ridge Hill Shelf, Whicher Scarp and Dandaragan Plateau (DoEE, 2016). The thresholds for patch size and condition for the Banksia Woodlands TEC state that a patch should meet at least Good (Keighery, 1994) condition to be considered part of the listed community, and minimum patch size is dependent on vegetation condition and its overall contribution to beta diversity, connectivity, and function of the ecological community across the landscape (DoEE, 2016).

Previously, occurrences of the Banksia Woodlands PEC were determined from the composition and location of the vegetation, where no specific patch size or condition thresholds applied. However, the description, area and condition thresholds have since been updated and are now aligned with those that apply to the federally listed Banksia Woodland TEC (DBCA, 2023). Therefore, any vegetation determined to be representative of the federally listed Banksia Woodlands TEC is also considered representative of the Banksia Woodlands PEC in the state.

Flora and vegetation surveys have identified that the application area contains the community CfRi which is considered to be representative of the State-listed *Banksia illicifolia* woodlands, Swan Coastal Plain 'floristic community type 22' (SCP22). The vegetation community, BiMpDb, occurs outside of the application area and is also considered to align with FCT 22. This vegetation community occurs in 'excellent' condition and the CfRi vegetation that aligns with FCT 22 occurs in 'very good' condition (Emerge, 2025b).

Approximately 0.36 hectares of CfRi occur within the application area. CfRi is representative of FCT 22 PEC primarily due to herb layer, patch size and condition thresholds. The dominant canopy species, *B. illicifolia*, is absent from the application area (Emerge, 2025b). Given the absence of Banksia overstorey, the vegetation under application is unlikely to be a true representation of FCT 22 or of the Banksia Woodlands TEC. In addition, the proposed clearing will reduce the patch of potential FCT 22 PEC from 1.38 hectares to 1.02 hectares. Given the small size of the area of potential PEC being impacted and that it is not likely to be a true representation of FCT22 or the Banksia woodland TEC, it is not considered for the proposed clearing to significantly impact this priority or threatened ecological communities.

#### Tuart Woodlands TEC

The approved conservation advice for the federally listed Tuart Woodlands TEC notes that the defining characteristic of this community is the presence of at least two living tuart trees in the uppermost canopy layer, with a gap of no more than 60 metres between the outer edges of the canopy of adjacent tuart trees (DoEE, 2019). The patch boundary for an occurrence of the Tuart Woodlands TEC is defined as 30 metres beyond the outer canopy of the established tuart trees (DoEE, 2019). The descriptions, area and condition thresholds that apply to the federally listed TEC also apply to the Tuart Woodlands PEC (DBCA, 2023).



The flora and vegetation assessment (Emerge, 2024b) determined that the planted CcEg vegetation type (consisting of planted tuart and marri) within the application area (0.46 ha) is likely to be representative of the Tuart Woodlands TEC, given:

- The site is located within an appropriate bioregion and landform,
- The patch of CcEg intersecting the application area contains more than two living established tuart trees with DBH greater than 15 centimetres present in the canopy layer and with less than 60 metres between the outer edges of canopies,
- The vegetation comprises a forest to open forest structure,
- The patch of CcEg intersecting the application area is 2.79 hectares in size and ranges from Good to Very Good (Keighery, 1994) condition, which is considered to meet the minimum patch size (<0.5 hectares) and condition thresholds ('moderate' to 'very high'), and
- The site was thoroughly sampled in the appropriate season and surrounding environment (e.g., breaks, connectivity, conservation values, fauna habitat) have been considered.
- The approved conservation advice for the federally listed Tuart Woodlands TEC doesn't distinguish between native vegetation and planted vegetation.

However, under the definition of 'native vegetation' provided in the *Environmental Protection Act 1986* (EP Act), vegetation that has been intentionally sown or planted is not considered as native vegetation. Accordingly, for the purposes of this application, any planted vegetation has been excluded from this assessment. Therefore, it is considered that the proposed clearing does not impact Tuart TEC.

Given the above, while the clearing will remove 0.43 hectares of native vegetation within a patch consistent with Tuart Woodlands TEC, it is not a natural occurrence of the TEC, has been highly modified, and the proposed clearing is not considered to have a significant residual impact to this community.

The proposed clearing was referred pursuant to the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) to the commonwealth department of environment. The referral decision was made on the 5<sup>th</sup> February 2025 and was determined to be 'not a controlled action' (EPBC 2024/10040).

#### Conclusion

Based on the above assessment, the proposed clearing will result in the loss of 0.36 hectares of native vegetation that is representative of the FCT 22 PEC. For the reasons set out above, it is considered that the impacts of the proposed clearing on FCT 22 PEC does not constitutes a significant residual impact.

#### Conditions

No management conditions required.

### **2.2.4. Significant remnant vegetation - Clearing Principle (e)**

#### Assessment

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001). While the current vegetation extent for the Swan Coastal Plain Interim Biogeographic Regionalisation of Australia (IBRA) bioregion is above the 30 per cent threshold, remaining native vegetation is approximately 18 per cent within the mapped Swan Coastal Plain vegetation complex (Southern River Complex) and is approximately 19 per cent in the local area (see Appendix C.2). Noting the vegetation provides significant foraging habitat for Carnaby's cockatoo, provides suitable habitat for other conservation significant fauna species, is within Bush Forever Site 472, and is growing in association with a significant wetland, the application area is considered to be a significant remnant of native vegetation.

However, the Environmental Protection Authority (EPA) recognises the Perth Metropolitan Region to be a constrained area, in which a minimum 10 per cent representation threshold for ecological communities is recommended (EPA, 2008). The current vegetation extent for the Swan Coastal Plain IBRA Bioregion, the Southern River Complex, and the local area are all above this 10 per cent threshold. The application area also represents less than 0.05 per cent of all remaining native vegetation in the local area and mapped within the Southern River Complex on the Swan Coastal Plain, meaning the proposed clearing will not cause the extent of native vegetation to fall below the 10 per cent representation threshold. Therefore, when considered in the context of the Perth Metropolitan Region constrained area, the application area is not located within an extensively cleared landscape.

As discussed under Section 3.2.1, the application area is likely to be contributing to north-south ecological linkages within Bush Forever Site 472, given the fragmented nature of native vegetation in the local area and separation from

adjacent properties by major roads. However, given native vegetation within the application area is already fragmented by existing infrastructure within the Banksia Hill Detention Centre and does not provide a continuous north-south linkage at present, it is unlikely that the proposed clearing will significantly impact vegetation connectivity in the local area.

Given the high weed load in parts of the application area, it is possible that the proposed clearing will facilitate the spread of weeds and dieback into surrounding significant remnant vegetation on the site and in the local area. A hygiene management condition will sufficiently minimise this risk.

### Conclusion

Based on the above assessment, the proposed clearing is unlikely to result in significant impacts to vegetation extent within an extensively cleared area or to impact significant ecological linkages but may facilitate the spread of weeds and dieback into nearby vegetation in the local area, including adjacent significant remnant vegetation within the site.

For the reasons set out above, it is considered that the impacts of the proposed clearing can be managed to be environmentally acceptable by taking steps to minimise the risk of the introduction and spread of weeds and dieback and does not constitute a significant residual impact.

### Conditions

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

- Dieback and weed control, which ensures protocols are put in place to limit the introduction and transportation of dieback- and weed-affected materials.

## 2.2.5. Conservation areas (Bush Forever Site 472) - Clearing Principle (h)

### Assessment

The majority of the application area (2.01 hectares) is located within Bush Forever Site 472 (see Figure 4 below) and has been identified as regionally significant bushland subject to the policy measures of SPP 2.8 (see Section 3.3). As outlined in the sections above, the native vegetation within Bush Forever Site 472 contains significant environmental values, including habitat for conservation significant fauna species, and vegetation growing in association with a wetland. Therefore, the proposed clearing will result in the loss of 2.01 hectares of native vegetation within a conservation area and may impact on the environmental values of Bush Forever Site 472.

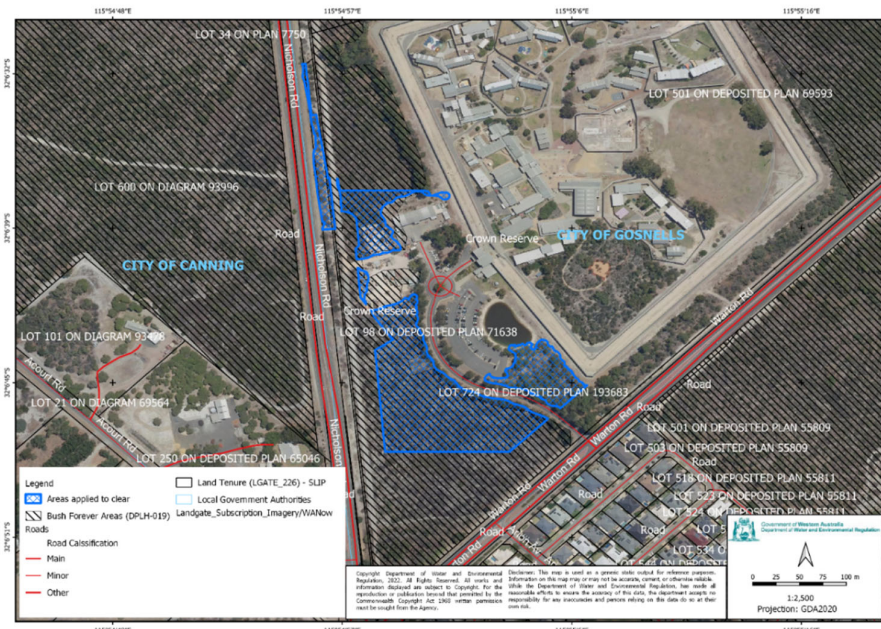


Figure 4. Map of the application area (cross-hatched blue) with respect to Bush Forever Site 472 (dashed black).

The application area is also adjacent to a mapped Perth Regional Ecological Linkage (PREL), representing broad links between Bush Forever Site 472 and several other Bush Forever areas (Sites 140, 253, 388, and 389) in the vicinity of the application area (Del Marco, et al., 2004). However, noting that the mapped linkage represents an east-west linkage that will not be interrupted by the proposed clearing and that the application area has already been

separated from the other local Bush Forever areas by major road infrastructure (e.g., Warton and Nicholson Roads), the proposed clearing is unlikely to significantly alter the existing linkage values of the mapped PREL.

The Department of Planning, Lands and Heritage (DPLH) (2025) advised that the proposal can be justified under SPP 2.8, given:

- the purpose of clearing is consistent with the site's reservation of Public Purpose – Prison under the Metropolitan Region Scheme (MRS),
- the purpose of clearing is consistent with the vesting of Crown Reserve 35153 as a Detention Centre,
- the information provided with the application has demonstrated that other options were considered and the avoidance of impacts entirely is limited due the requirement to expand the facility, and
- the applicant has taken reasonable steps to minimise the impacts on native vegetation within Bush Forever Site 472, including through an Environmental Management Plan and Wetland Management Plan.

DPLH (2025) recommended that the following measures be implemented for consistency with SPP 2.8 and to ensure the integrity of Bush Forever Site 472 is not compromised:

- Other than the 2.77 hectares of native vegetation proposed to be cleared, no additional disturbance, clearing, or indirect impacts to Bush Forever Site 472 is to result from the construction, access, drainage, or ongoing maintenance of the proposal.
- Mitigation measures are adopted, and an offset package is prepared and approved in accordance with the *WA Environmental Offsets Policy* (2011) with guidance from Appendix 4 of SPP 2.8, prior to the clearing of any native vegetation. The offset package should provide for a net environmental gain and be like for like, constituting the significant environmental values present onsite.

The Delegated Officer determined that an offset consistent with Appendix 4 of SPP 2.8 is required to counterbalance the loss of vegetation within Bush Forever Site 472 and ensure there will be an environmental gain for the proposed clearing. The applicant has proposed to rehabilitate at least 4.02 hectares of native vegetation within Bush Forever Site 472, which is sufficient to counterbalance the impacts to regionally significant bushland and align with SPP 2.8.

The proposed clearing also has the potential to result in indirect impacts to habitat values in Bush Forever Site 472 and other nearby Bush Forever areas through the spread of weeds and other pathogens. A hygiene management condition will sufficiently minimise this risk.

#### Conclusion

Based on the above assessment, the proposed clearing will impact regionally significant bushland within Bush Forever Site 472. There is also potential for the clearing activities to result in the introduction or spread of weeds into adjacent vegetation. It is considered that indirect impacts to adjacent vegetation can be appropriately mitigated and managed through hygiene protocols.

For the reasons set out above, it is considered that the loss of 2.01 hectares of regionally significant bushland within Bush Forever Site 472 constitutes a significant residual impact. In accordance with SPP 2.8, this significant residual impact has been addressed through the conditioning of environmental offset requirements, as outlined under Section 4.

#### Conditions

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

- Weed and dieback management measures, requiring the permit holder to take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback to adjacent vegetation, and
- Offset – revegetation and rehabilitation, requiring the permit holder to rehabilitate at least 4.02 hectares of native vegetation within Bush Forever Site 472.

### **2.2.6. Land and water resources (wetland) - Clearing Principle (f)**

#### Assessment

The application area intersects two mapped Multiple Use wetlands; UFI 7079 and UFI 7069. UFI 7079 covers a total area of 2.8 hectares, the majority of which occurs within remnant native vegetation in the north-western corner of Lot 500 on Deposited Plan 69593 (Crown Reserve 35153). The remainder of UFI 7079 extends west into disturbed roadside vegetation along Nicholson Road. UFI 7069 covers a total area of 3.16 hectares, predominantly within remnant native vegetation in the south-western corner of Lot 500 on Deposited Plan 69593 (Crown Reserve 35153) but also extending south into existing infrastructure along Warton and Nicholson Roads. The application area

intersects approximately 0.3 hectares of native vegetation within UFI 7079 in its northern portion and approximately 0.6 hectares of UFI 7069 in its the southern portion.

The flora and vegetation assessments of the application area (Emerge, 2025b; 2024b) confirmed the presence of wetland associated vegetation (e.g., *Melaleuca preissiana*, *Melaleuca raphiophylla*, *Banksia littoralis*, *Regelia inops*, *Pericalymma ellipticum*, *Boronia dichotoma*, *Euchilopsis linearis* and *Schoenus efoliatus*) within the mapped wetlands (Emerge, 2025b; Emerge 2024b).

A wetland assessment (Emerge 2024c) of the site was undertaken in May 2024, to map the indicative wetland species, collect soil core samples, and evaluate wetland values using the methods outlined in *A methodology for the evaluation of wetlands on the Swan Coastal Plain, Western Australia* (DBCA, 2017) (wetland methodology). The wetland assessment indicates that only a portion of UFI 7079 and two isolated portions of UFI 7069 contain characteristic wetland dependent vegetation (vegetation associations MSs and MpLI) (Emerge, 2024c). The evaluation undertaken by Emerge (2024c) determined that these portions of the mapped wetlands are likely to have values commensurate with a Conservation Category Wetland (CCW) based on vegetation condition and location within a Bush Forever site.

The wetland assessment indicates that the remaining areas of UFI 7079 and UFI 7069 should not be considered a wetland at present, and are more likely transitional vegetation surrounding the core wetland areas, noting:

- These areas contain the CfRi, MpAfRi, CcEg, and BaBmAhCf vegetation associations, which include species that are not typically associated with wetlands or at least are not reliant on seasonal waterlogging,
- Soil and vegetation analysis indicated that these areas have likely dried over time due to historical groundwater decline, and
- While the CfRi and MpAfRi vegetation associations are likely groundwater dependent, there is a distinct lack of surface or near-surface waterlogging.

Based on the wetland assessment (Emerge, 2024c), the proposed clearing has avoided the core wetland areas on site but will result in the loss of approximately 0.26 hectares of transitional vegetation within a 50-metre buffer of the core wetland area within UFI 7079 and part of UFI 7069.

Expert wetland advice was obtained from DBCA regarding the stated outcomes of the wetland assessment and whether the additional investigation undertaken by Emerge (2024c) indicates that the boundaries of the wetlands UFI 7079 and 7069 have changed.

DBCA (2025a) advised that there is insufficient scientific evidence to amend the existing wetland boundaries for UFI 7079 and UFI 7069 and the extend of wetland within the application area has not changed from what is mapped under the Geomorphic wetland database. DBCA has not formally evaluated the management category of the mapped wetlands in accordance with the wetland methodology however, as the majority of the vegetation on site is in Good (Keighery, 1994) condition or better, the wetlands meet preliminary evaluation criteria 5 of the Methodology and therefore is likely to have values commensurate to a conservation category wetland.

DBCA has advised that the two mapped wetlands within the application area are likely commensurate with a 'Conservation' management category and that the proposed clearing will decrease the size of the two wetlands, reducing their function and viability long-term. Noting the significant ecological functions performed by Conservation Category Wetlands (CCWs) and the cumulative impact of clearing wetland vegetation on the Swan Costal Plain, the clearing of 0.90 hectares of native wetland vegetation within the application area been determined to represent a significant impact

#### Conclusion

Based on the above assessment, the proposed clearing will result in the loss of 0.90 hectares of significant wetland vegetation that is commensurate with a CCW. The management measures proposed by the applicant are considered adequate to manage the indirect impacts to the significant wetland vegetation adjacent to the application area. However, for the reasons set out above, it is considered that the direct impacts of the proposed clearing on wetland vegetation that is commensurate with a CCW constitutes a significant residual impact.

In accordance with the Government of Western Australia's *Environmental Offsets Policy* (2011) and *Environmental Offsets Guidelines* (2014), this significant residual impact has been addressed through the conditioning of environmental offset requirements, as outlined under Section 4.

#### Conditions

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

- Dieback and weed control, which ensures protocols are put in place to limit the introduction and transportation of dieback- and weed-affected materials,
- Offset – monetary contribution to the Part V Offsets Fund, which requires the applicant to fund the purchase of 5.78 hectares of vegetation that is growing in or in association with a wetland containing values that are commensurate with a CCW in Good to Very Good (Keighery, 1994) condition on the Swan Coastal Plain to be conserved in perpetuity; and
- Offset – rehabilitation and revegetation of at least 1.73 hectares of native wetland vegetation within 50 metres of the mapped boundaries of the wetlands UFI 7079 and 7069 within Crown Reserve 50756 to a minimum of Very Good (Keighery, 1994) condition.

### **2.2.7. Land and water resources (land degradation and water quality) - Clearing Principles (g) and (i)**

#### Assessment

The mapped soils are moderately to highly susceptible to wind erosion, waterlogging, subsurface acidification, and phosphorus export. The proposed clearing has the potential to cause land degradation where there is significant disturbance of topsoil, and if bare ground is left exposed to weathering for an extended period between clearing and development.

The application area occurs within a Priority 1 area of the Jandakot Underground Water Pollution Control Area, however, does not occur within a wellhead protection zone for public drinking water supply bores. Groundwater salinity has been mapped as relatively low. The proposed clearing of 2.77 hectares is unlikely to impact groundwater quality however the end land use of a youth detention centre may if not appropriately managed. Impacts to groundwater quality from the end land use is discussed under section 2.3 below.

While the majority of the application area is mapped as having a low risk of flooding and waterlogging, the soils associated with the mapped wetlands (UFI 7079 and UFI 7069) within the application area have a high risk of waterlogging. However, noting the topographic contours of the site, the disturbed nature of the vegetation in these areas, and that the applicant will implement surface water and stormwater management practices as part of its construction environmental management plan, it is not considered likely that the proposed clearing will cause, or exacerbate, the incidence or intensity of flooding.

#### Conclusion

Based on the above assessment, the proposed clearing may result in land degradation where there is bare ground left exposed to weathering for an extended period between the clearing of surface vegetation and development of the site. For the reasons set out above, it is considered that the potential land degradation impacts of the proposed clearing can be appropriately managed through the applicant's mitigation and management provisions for soil and management and through permit conditions. Therefore, the proposed clearing is not considered likely to represent a significant residual impact resulting from land degradation.

#### Conditions

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

- Staged clearing – construction must commence within three months of clearing to reduce the potential for erosion of exposed soils.

### **2.3. Relevant planning instruments and other matters**

In accordance with section 51O(4) of the EP Act, in considering a clearing matter the Delegated Officer shall have regard to any development approval, planning instrument, or other matter, that they consider relevant. The planning instruments and other matters considered relevant by the Delegated Officer in determining to grant Clearing Permit CPS 11152/1, are outlined below.

#### **Necessity of the clearing**

DWER's 'A guide to the assessment of applications to clear native vegetation' (DER, 2013) indicates that the necessity of the clearing is an 'other relevant matter' to be considered when making decisions as to whether a clearing permit should be granted. The assessment guideline prioritises clearing for public use over private benefit or commercial gain (DER, 2013).

In considering the clearing permit application, the Delegated Officer had regard to the fact that the New Youth Detention Facility is an outcome of a recent Youth Justice Infrastructure Review and is required to replace the Unit 18

youth detention facility at Casuarina Prison and accommodate high-risk young people who cannot be safely housed at Banksia Hill. The Delegated Officer considered the public benefit of the proposal, noting that the new 30-bed facility will provide the required supervision and therapeutic support for high-risk individuals in a secure environment, while enabling Banksia Hill to operate as intended without disruptions.

### Consultation

The clearing permit application was advertised on DWER's website on 6 August 2025, inviting submissions from the public within a 21-day period. One submission was received at this time and consideration of matters raised in the public submissions are summarised in Appendix B.

### State Planning Policies

The application area is zoned Public Purpose – Prison under the Metropolitan Regional Scheme (MRS) and is a designated Bush Forever area. Therefore, the Delegated Officer considers that State Planning Policy (SPP) 2.8 is a relevant matter for this application.

SPP 2.8 sets out that:

*'Proposals or decision-making' in respect of Bush Forever areas 'should:*

- (i) support a general presumption against the clearing of regionally significant bushland or other degrading activities, except where a proposal or decision – a. is consistent with the overall purpose and intent of an existing Crown reserve or can be reasonably justified with regard to wider environmental, social, economic or recreational needs, and all reasonable alternatives have been considered in order to avoid or minimise any direct loss of regionally significant bushland, and reasonable offset strategies are secured to offset any loss of regionally significant bushland, where appropriate and practical (clause 5.1.2.1(i)(e)).'*

In considering SPP 2.8 and advice received from DPLH (see Section 3.2.5), the Delegated Officer considered it appropriate to grant the clearing permit in relation to Bush Forever Site 472 given the New Youth Detention Facility is consistent with the purpose and intent of the land parcel, is justified based on the need to provide a secure environment for the support of high-risk individuals at Banksia Hill Detention Centre, and a suitable environmental offset is implemented to counterbalance the loss of vegetation (see Section 4). Therefore, the Delegated Officer determined that the proposed clearing is consistent with the provisions of SPP 2.8.

### Other relevant authorisations

The Proposed Action was referred pursuant to the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). The referral decision was made on the 5<sup>th</sup> February 2025 and was determined to be 'not a controlled action' (EPBC 2024/10040).

The application area occurs within P1 area of a Public Drinking Water Source Area. Advice from Water source protection planning (WSPP) stated that:

- The proposed clearing includes an area within a P1 area of the Jandakot Underground water pollution control area, but no wellhead protection zones for public drinking water supply bores.
- The clearing is for a new Youth Detention Facility, which is considered an incompatible land use in a P1 area however it is noted that the proposed development will be deep sewered and will employ best management practices to protect water quality in accordance with DWER's water quality protection note guidance for protecting water quality.

DWER's best management practice advice is in accordance with the following water quality notices:

- Contaminant spills – emergency response plan (WQPN 10)
- Toxic and hazardous substances (WQPN 65)
- Land use compatibility tables for public drinking water source areas (WQPN 25)

Development Approval from the WAPC is required for the proposal. Development Approval was granted in November 2025 under the *Planning and Development Act 2005* (PD Act) with conditions including the requirement to develop and implement an Environmental Assessment and Management Plan to manage impacts of the proposed clearing and construction on the environment.

## 3 Suitability of offsets

Through the detailed assessment 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 summarised in Section 3.1:

- Loss of 0.55 hectares of foraging habitat for Carnaby's cockatoo.

- Loss of 0.90 hectares of wetland vegetation with values commensurate with a conservation category wetland; and
- Loss of 2.01 hectares of native vegetation within Bush Forever Site 472.

In determining the appropriateness of an offset, the Delegated Officer took into consideration the applicant's implementation of the mitigation hierarchy and the public benefit of the proposed clearing (see Section 3.1). In considering these matters, the Delegated Officer determined that it was appropriate to grant the clearing permit in relation to the significant residual impacts, on the basis that a suitable environmental offset was implemented to counterbalance the impacts.

#### **Land acquisition of significant wetland vegetation**

To counterbalance the significant residual impacts to significant wetland vegetation, the applicant has committed to provide a monetary contribution to fund the purchase of 5.78 hectares of vegetation that is growing in or in association with a wetland containing values that are commensurate with a CCW in Good to Very Good (Keighery, 1994) condition on the Swan Coastal Plain. The site for acquisition is currently unknown and consideration of the appropriateness of the offset was therefore based on the unimproved land values for the likely Shires of interest for purchasing significant wetland vegetation on the Swan Coastal Plain.

In the assessment of the proposed offset, the Delegated Officer considered the prospects of acquiring land containing similar significant wetland vegetation via the Part V Offsets Fund and determined that a 50-hectare land value, in this instance, is appropriate and is consistent with the *WA Environmental Offsets Policy* (2011). Given the uncertainty surrounding the site for acquisition, the Delegated Officer determined that the unimproved land value in the Shire of Murray (the highest of the 50-hectare unimproved land values in the areas of interest) was appropriate for use in determining a suitable monetary contribution.

Based on unimproved land values for the Shire of Murray, a 50-hectare parcel would have a market value of \$ 8,070 per hectare. Therefore, a monetary contribution of \$46,644.60 would be required to fund the acquisition of 5.78 hectares of vegetation that is growing in or in association with a wetland containing values that are commensurate with a CCW in Good to Very Good (Keighery, 1994) condition.

#### **Revegetation and rehabilitation of wetland vegetation within Crown Reserve 35153 (Bush Forever)**

In order to directly counterbalance the significant residual impacts of the proposed clearing, the applicant proposed to undertake revegetation and rehabilitation of a total of 1.73 hectares of significant wetland vegetation adjacent to the application area. Biological survey information and a site visit for these areas confirmed the presence of wetland dependent vegetation in degraded to good condition. The applicant has committed to undertake revegetation within three wetland buffer areas to increase the condition of the wetlands to very good or better condition. As a condition of the clearing permit, the applicant will be required to develop and implement a comprehensive revegetation plan with to support this revegetation.

#### **Revegetation and rehabilitation of black cockatoo foraging habitat within Crown Reserve 50756 (Bush Forever)**

While Carnaby's cockatoos are highly mobile and can travel significant distances when migrating to southern breeding sites, the movement of flocks tend to be restricted during the nonbreeding period, where daily flights are limited to foraging and drinking (Shephard and Warren, 2018). This is also supported by the findings of black cockatoo studies undertaken by Murdoch University, which indicated limited daily movements for both Carnaby's cockatoos and forest red-tailed black cockatoos. The *WA Environmental Offsets Guidelines* (2014) state that "in determining the significance of an impact, it is important to consider the impacts in the regional context. In isolation, a project may not be considered to have a significant impact. However, when considered along with other projects, activities and threats in the region, the cumulative impacts may be significant". Given the limited daily movements of black cockatoo species and the significant pressures on the remaining black cockatoo habitat on the Swan Coastal Plain, the Delegated Officer considered that an appropriate environmental offset should take into account the flocks that currently utilise the food resources being impacted by the proposal and the existing threats to foraging habitat on the Swan Coastal Plain. Noting this, the Delegated Officer determined that a revegetation and rehabilitation offset in close proximity to the clearing area would better meet the requirements of the *WA Environmental Offsets Guidelines* (2014) and directly counterbalance the impacts to 0.55 hectares of significant foraging habitat for Carnaby's cockatoo.

In order to directly counterbalance the significant residual impacts of the proposed clearing, the applicant proposed to undertake revegetation and rehabilitation of a total of 2.18 hectares of significant foraging habitat for Carnaby's cockatoo within Completely Degraded condition vegetation within Crown Reserve 50756 (within or adjacent to Bush Forever site 472). The applicant has committed to undertake revegetation within this area to increase available



foraging habitat from a completely degraded condition to good or better condition. As a condition of the clearing permit, the applicant will be required to develop and implement a comprehensive revegetation plan that must include:

- site preparation methods;
- weed control;
- regeneration, direct seeding or planting, at an optimal time;
- a vegetation establishment period;
- rehabilitation success completion criteria based on selected reference sites, including but not limited to target weed cover, target species diversity, target vegetation condition, target density, and target structure;
- remedial actions to be undertaken if completion criteria are not met;
- details of ongoing maintenance and monitoring of the area to be revegetated and rehabilitated for a minimum of five (5) years;
- timeframes for completion of the activities; and
- management commitments that will be achieved.

#### **Revegetation and rehabilitation of native vegetation within Bush Forever site 427**

In order to directly counterbalance the significant residual impacts of the proposed clearing on Bush Forever and in accordance with SPP 2.8; the applicant has agreed to undertake revegetation and rehabilitation of a least 4.02 hectares of native vegetation within or adjacent to Bush Forever Site 472. This revegetation will incorporate the required revegetation needed to counterbalance impacts to black cockatoo habitat (2.18ha) and wetland vegetation (1.73 ha) as outlined above. This offset will ensure that there will be an environmental gain for the proposed clearing. As a condition of the clearing permit, the applicant will be required to develop and implement a comprehensive revegetation plan with to support this revegetation.

#### **Conclusion**

The Delegated Officer considers the proposed offset is consistent with the *WA Environmental Offsets Policy* (2011) and the *WA Environmental Offsets Guidelines* (2014), and that it adequately counterbalances the significant residual impacts to native vegetation that is representative of significant wetland vegetation and foraging habitat for Carnaby's cockatoo and that occurs within a Bush Forever site. The justification for the values used in the offset calculation is provided in Appendix F.

**End**

## Appendix A. Additional information provided by applicant

Summary of comments	Consideration of comment
<p>Applicant provided additional information regarding consideration of alternatives, mitigation and management measures, further information on suitable offsets, a commitment to undertake pre-clearance fauna trapping and relocation and evidence of approved Development Approval.</p> <p>Additional targeted post-fire flora survey of the recently burnt areas within the Application Area for <i>Byblis gigantea</i> and <i>Diuris purdiei</i>.</p>	<p>Consideration of the additional information provided is outlined in <i>Assessment of impacts on environmental values</i> (see Section 3.2) and <i>Relevant planning instruments and other matters</i> (see Section 3.3).</p>

## Appendix B. Details of public submissions

Summary of comments	Consideration of comment
<p>One public submission received raising concerns regarding impact to critical habitat for the threatened flora species <i>Byblis gigantea</i>. <i>Byblis gigantea</i> is a fire ephemeral species and may lay dormant in the seedbank in the prolonged absence of fire.</p> <p>The submission states that no fire is known to have affected the application area for at least ten years prior to the flora surveys in 2023-2024, but that a bushfire has since affected the area in September 2024. The submission proposes that post-fire surveys would be required to determine presence or absence of <i>Byblis gigantea</i> within the application area and assess significance of impacts.</p>	<p>DWER's assessment of the impacts of the proposed clearing on conservation significant flora is outlined in <i>Assessment of impacts on environmental values</i> (see Section 3.2).</p>

## Appendix C. Site characteristics

### C.1. Site characteristics

Characteristic	Details
Local context	<p>The application area is part of a series of fragmented patches of native vegetation within the intensive land use zone of Western Australia. It is adjacent to the existing Banksia Hill Juvenile Detention Facility to its east and northeast and is bound by remnant native vegetation to the north and south, and Nicholson Road to the west.</p> <p>The total area of remnant native vegetation remaining at the existing Banksia Hill Juvenile Detention Facility is approximately 55 hectares. The application areas are distributed across four patches, including a linear strip of roadside vegetation along Nicholson Road and three patches of remnant vegetation varying in size from 1.38 hectares to 4.05 hectares.</p> <p>Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 19.6 per cent of the original native vegetation cover (see Appendix C.2).</p>
Ecological linkage	<p>The application area is directly adjacent to a mapped Perth Regional Ecological Linkage (PREL). The PREL dataset identifies regional ecological linkages mapped to broadly represent a link between patches of remnant vegetation judged to be of regional significance in the Perth Metropolitan Region (PMR) Scheme Area (Del Marco, et al.,</p>

Characteristic	Details															
	<p>2004). The mapped linkage represents broad links between several Bush Forever areas (Sites 140, 253, 388, and 389) in the vicinity of the application area.</p> <p>Given the fragmented nature of native vegetation in the local area and adjacent properties, the application area is likely to be contributing to linkage values between the remaining patches of native vegetation.</p>															
Conservation areas	Majority of the application area (2.01 hectares) is located within the Bush Forever Site 472.															
Vegetation description	<p>Flora and vegetation assessments (Emerge, 2025b; Emerge, 2024b) indicate that the vegetation within the application area consists of four native vegetation communities:</p> <ul style="list-style-type: none"><li>• <b>MpAcRi:</b> Open woodland of <i>Melaleuca preissiana</i> over shrubland of <i>Adenanthos cygnorum</i>, <i>Calytrix fraseri</i>, <i>Jacksonia furcellata</i> and <i>Regelia inops</i> over low shrubland of <i>Acacia pulchella</i> var. <i>glaberrima</i> over forbland of <i>Phlebocarya ciliata</i> (1.78 hectares).</li><li>• <b>CcEg:</b> Open forest of <i>Corymbia calophylla</i> (Planted) and <i>Eucalyptus gomphocephala</i> (planted) over <i>Allocasuarina fraseriana</i>, <i>Banksia attenuata</i> and <i>Banksia menziesii</i> over shrubland of <i>Adenanthos cygnorum</i> over low shrubland of <i>Hibbertia hypericoides</i>, <i>Stirlingia latifolia</i> and <i>Styphelia xerophylla</i> (0.46 hectares).</li><li>• <b>CfRi:</b> Scattered <i>Banksia littoralis</i> and <i>Melaleuca preissiana</i> trees over shrubland of <i>Adenanthos cygnorum</i>, <i>Calytrix fraseri</i> and <i>Regelia inops</i> over forbland of <i>Dasypogon bromeliifolius</i>, <i>Phlebocarya ciliata</i> and <i>Schoenus efoliatus</i> over herbland of <i>Stylidium araeophyllum</i> and <i>Stylidium repens</i> (0.36 hectares).</li><li>• <b>Ac:</b> Shrubland of <i>Adenanthos cygnorum</i> over scattered <i>*Gaudium laevigatum</i> and <i>Calytrix fraseri</i> over forbland of <i>Patersonia occidentalis</i>, <i>*Gladiolus caryophyllaceus</i>, and <i>*Pelargonium capitatum</i> over non-native open grassland of <i>*Eragrostis curvula</i>, and <i>*Ehrharta longiflora</i> (0.17 hectares).</li></ul> <p>The full survey descriptions and maps are available in Appendix G.</p> <p>This is broadly consistent with the mapped Swan Coastal Plain vegetation type, Southern River Complex, which is described as Open woodland of <i>Corymbia calophylla</i> (Marri) - <i>Eucalyptus marginata</i> (Jarrah) - <i>Banksia</i> species with fringing woodland of <i>Eucalyptus rudis</i> (Flooded Gum) - <i>Melaleuca raphiophylla</i> (Swamp Paperbark) along creek beds (Hedde et al, 1980).</p>															
Vegetation condition	<p>Flora and vegetation assessments (Emerge, 2025b; Emerge, 2024b) indicate that the vegetation within the application area is in Very Good to Degraded (Keighery, 1994) condition, described as:</p> <ul style="list-style-type: none"><li>• <b>Very Good:</b> Vegetation structure altered, with obvious signs of disturbance.</li><li>• <b>Good:</b> Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it.</li><li>• <b>Degraded:</b> Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management.</li></ul> <p>The vegetation condition varies between the mapped vegetation types (Emerge, 2025b; Emerge, 2024b), as follows:</p> <table><tr><th>Vegetation Type</th><th>Keighery (1994) Condition</th><th>Extent (ha)</th></tr><tr><td>MpAcRi</td><td>Good</td><td>1.78</td></tr><tr><td>CcEg</td><td>Very Good</td><td>0.46</td></tr><tr><td>CfRi</td><td>Good</td><td>0.36</td></tr><tr><td>Ac</td><td>Degraded</td><td>0.17</td></tr></table> <p>The full Keighery (1994) condition rating scale is provided in Appendix E. The full survey mapping is available in Appendix G.</p>	Vegetation Type	Keighery (1994) Condition	Extent (ha)	MpAcRi	Good	1.78	CcEg	Very Good	0.46	CfRi	Good	0.36	Ac	Degraded	0.17
Vegetation Type	Keighery (1994) Condition	Extent (ha)														
MpAcRi	Good	1.78														
CcEg	Very Good	0.46														
CfRi	Good	0.36														
Ac	Degraded	0.17														

Characteristic	Details
Climate and landform	<p>The application area is located on relatively flat topography. The elevation of the site ranges from 26 metres in relation to the Australian height datum (mAHD) in the central portion to 45 mAHD in the northern portion.</p> <p>The region has a mean annual maximum temperature of 24.7°C and a mean annual minimum temperature of 11.7°C (BoM, 2025). The mean annual rainfall recorded at the nearest Bureau of Meteorology weather station (Jandakot Aero) is 810.7 millimetres (BoM, 2025).</p>
Soil description and land degradation risk	<p>The application area is mapped within three soil and landform types as follows (DPIRD, 2025):</p> <ul style="list-style-type: none"> <li>• <b>Bassendean B1 Phase (212Bs__B1):</b> Extremely low to very low relief dunes, undulating sandplain and discrete sand rises with deep bleached grey sands sometimes with a pale yellow B horizon or a weak iron-organic hardpan at depths generally greater than 2 m; banksia dominant (0.82 hectares, ~ 30.0 per cent).</li> <li>• <b>Bassendean B2 Phase (212Bs__B2):</b> Flat to very gently undulating sandplain with well to moderately well drained deep bleached grey sands with a pale yellow B horizon or a weak iron-organic hardpan 1-2 m (1.22 hectares, ~ 44.0 per cent).</li> <li>• <b>Bassendean B4 Phase (212Bs__B4):</b> Broad poorly drained sandplain with deep grey siliceous sands or bleached sands, underlain at depths generally greater than 1.5 m by clay or less frequently a strong iron-organic hardpan (0.72 hectares, ~26.0 per cent).</li> </ul> <p>The soil types within the application area are mapped as having a low risk of land degradation resulting from water erosion, salinity, and flooding, but are susceptible to subsurface acidification and phosphorus export (DPIRD, 2025). The soil type 212Bs__B1, accounting for approximately 30 per cent of the application area in the south-easternmost portion, also has high risk of wind erosion (DPIRD, 2025). The soil type 212Bs__B4, associated with the mapped wetlands UFI 7079 and UFI 7069 (26 per cent of the application area) also has high risk of water logging (see Appendix C.6) (DPIRD, 2025).</p>
Waterbodies and hydrogeography	<p>The desktop assessment identified that the northern and southern portions of the application area (approximately 0.9 hectares total) intersect mapped Multiple Use damplands within the Geomorphic Wetlands of the Swan Coastal Plain dataset (UFI 7079 and UFI 7069). Vegetation assessments of the application area have confirmed that these areas contain wetland associated vegetation (Emerge, 2025b; Emerge, 2024b). A wetland assessment (Emerge, 2024c) and advice received from DBCA (2025a) during the assessment of the application, indicate that the wetlands associated with the application area have values commensurate with a Conservation management category. Therefore, impacts to wetland vegetation required further consideration (see Section 3.2.4).</p> <p>The application area also partially overlaps a manmade lake located near the car park of the existing Banksia Hill Facility and includes a small area of native vegetation growing adjacent to the banks of the lake.</p> <p>The application area is mapped within the Perth Groundwater Area, proclaimed under the RIWI Act and is partially mapped within a Priority 1 area of the Jandakot Underground Water Pollution Control Area, a Public Drinking Water Source Area (PDWSA) proclaimed under the <i>Metropolitan Water Supply Sewerage and Drainage Act 1909</i>. However, the application area is approximately 600 metres from the nearest Wellhead Protection Zone associated with this PDWSA. The application area does not transect any proclaimed surface water areas.</p> <p>Groundwater salinity within the application area is mapped at less than 500 milligrams per litre total dissolved solids.</p>
Flora	<p>The desktop assessment identified that a total of 82 conservation significant flora species have been recorded within the local area, comprising eight Priority 1 (P1) flora, 13 Priority 2 (P2) flora, 27 Priority 3 (P3) flora, 14 Priority 4 (P4) flora, 19 threatened</p>

Characteristic	Details
	<p>flora, and one presumed extinct flora species. None of these existing records occur within the application area, with the closest record being an occurrence of <i>Caladenia huegelii</i> (T) approximately 0.5 kilometres from the application area.</p> <p>No threatened or priority flora species have been identified within the application area during the flora and vegetation assessments (Emerge, 2025b; Emerge, 2024b). However, based on the site characteristics set out above and the habitat preferences and ecology of the species known from the local area, the application area may still provide significant habitat for five threatened flora species and impacts to these species required further consideration (see Appendix C.3).</p>
Ecological communities	<p>The desktop assessment identified that the application area is mapped within an occurrence of the Banksia Woodlands of the Swan Coastal Plain (Banksia Woodlands) ecological community, which is listed as an Endangered TEC under the Commonwealth EPBC Act and is considered a Priority 3 PEC by DBCA in Western Australia.</p> <p>The vegetation assessments of the application area (Emerge, 2025b; Emerge, 2024b) identified that, the CfRi vegetation type is likely to be consistent with Floristic Community Type 22 (<i>Banksia ilicifolia</i> woodlands, southern Swan Coastal Plain) described by Gibson et al. (1994). While this community is part of the EPBC Act listed Banksia Woodlands TEC, FCT 22 is considered a separate Priority 3 PEC by DBCA. Additionally, the CcEg vegetation type is likely to be consistent with Tuart (<i>Eucalyptus gomphocephala</i>) woodlands and forests of the Swan Coastal Plain ecological community (Tuart woodlands TEC), which is listed as an Endangered TEC under the Commonwealth EPBC Act and is considered a Priority 3 PEC by DBCA in Western Australia.</p> <p>Therefore, impacts to these ecological communities required further consideration (see Appendix C.4).</p>
Fauna	<p>The desktop assessment identified that a total of 60 conservation significant fauna species have been recorded within the local area, including 15 threatened fauna, 20 priority fauna, 23 migratory fauna species listed under international agreement, one conservation dependent fauna, and one other specially protected fauna species. None of these records occur within the application area, with the closest record being an occurrence of <i>Notamacropus irma</i> (western brush wallaby) (P4), recorded approximately 20 metres from the application area in adjacent vegetation.</p> <p>With consideration for the site characteristics set out above, relevant datasets (see Appendix H.1), the habitat preferences of the aforementioned species, and fauna assessments of the application area (Emerge 2025b; Emerge, 2024a; Invertebrate Solutions, 2024), the application area may provide suitable habitat for 13 conservation significant fauna species and impacts to these species required further consideration (see Appendix C.5).</p>

## 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**					
Swan Coastal Plain	1,501,221.93	579,813.47	38.62	222,916.97	14.85
Swan Coastal Plain vegetation complex*					
Southern River Complex	58,781.48	10,832.18	18.43	940.36	1.6

	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
Local area					
10-kilometre radius	31,190.28	6,126.35	19.64	-	-

\*Government of Western Australia (2019a)

\*\*Government of Western Australia (2019b)

### C.3. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix H.1), the habitat preferences and conservation statuses of flora species known from the local area, the distribution and extent of existing records, and flora and vegetation assessments of the application area (Emerge, 2025b; Emerge, 2024b), impacts to the following conservation significant flora required further consideration.

Species name	Conservation status (WA)	Suitable habitat features ? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records in local area (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>Byblis gigantea</i>	T (EN)	Y	Y	Y	1.98	9	Y
<i>Caladenia huegelii</i>	T (CR)	Y	Y	Y	0.50	79	N
<i>Diuris drummondii</i>	T (EN)	Y	Y	Y	4.70	2	N
<i>Diuris purdiei</i>	T (EN)	Y	Y	Y	1.77	21	N
<i>Thelymitra variegata</i>	T (CR)	Y	Y	Y	9.83	1	N

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

### C.4. Fauna analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix H.1), the habitat preferences of the aforementioned species, the distribution and extent of existing records, and fauna assessments of the application area (Emerge, 2025b; Emerge, 2024a; Invertebrate Solutions, 2024), impacts to the following conservation significant fauna required further consideration.

Species name	Conservation status (WA)	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Number of known records in local area (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>Apus pacificus</i> (Fork-tailed swift)	MI	Y	Y	5.43	1	Y
<i>Calyptorhynchus banksii naso</i> (Forest red-tailed black cockatoo)	VU	Y	Y	0.39	142	Y
<i>Falco peregrinus</i> (Peregrine falcon)	OS	Y	Y	2.98	52	Y
<i>Idiosoma sigillatum</i> (Swan Coastal Plain shield-backed trapdoor spider)	P3	Y	N	2.22	52	N
<i>Isodon fusciventer</i> (Quenda)	P4	Y	Y	0.13	1528	Y
<i>Leioproctus contrarius</i> (Native short-tongued bee)	P3	N	Y	4.03	3	Y
<i>Leioproctus douglasiellus</i> (Native short-tongued bee)	EN	N	Y	5.77	4	Y
<i>Lerista lineata</i> (Perth slider)	P3	Y	Y	2.61	235	N
<i>Neelaps calonotos</i> (Black-striped burrowing snake)	P3	Y	Y	3.50	9	N

Species name	Conservation status (WA)	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Number of known records in local area (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>Neopasiphae simplicior</i> (Native short-tongued bee)	EN	N	Y	3.55	6	Y
<i>Notamacropus Irma</i> (Western brush wallaby)	P4	Y	Y	0.02	47	Y
<i>Zanda baudinii</i> (Baudin's cockatoo)	EN	Y	Y	8.77	17	Y
<i>Zanda latirostris</i> (Carnaby's cockatoo)	EN	Y	Y	0.07	1956	Y

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

### C.5. Ecological community analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix H.1), the distribution and extent of existing records, and flora and vegetation assessments of the application area (Emerge, 2025b; Emerge, 2024b), impacts to the following conservation significant ecological communities required further consideration.

Community name	Conservation status (WA)	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records in local area (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>Banksia ilicifolia</i> woodlands, southern Swan Coastal Plain ('floristic community type 22')	P3	Y	Y	Y	0.0	N/A	Y
Tuart ( <i>Eucalyptus gomphocephala</i> ) woodlands and forests of the Swan Coastal Plain	P3	Y	N	Y	8.0	7	Y

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

### C.6. Land degradation risk table

Based on relevant datasets (see Appendix H.1) and available land degradation risk mapping (DPIRD, 2025), the land degradation risk varies between soil types across the application area as follows:

Risk categories	Bassendean B1 phase	Bassendean B2 phase	Bassendean B4 phase
Wind erosion	H1: 50-70% of map unit has a high to extreme wind erosion risk	M2: 30-50% of map unit has a high to extreme wind erosion risk	M1: 10-30% of map unit has a high to extreme wind erosion risk
Water erosion	L1: <3% of map unit has a high to extreme water erosion risk	L1: <3% of map unit has a high to extreme water erosion risk	L1: <3% of map unit has a high to extreme water erosion risk
Salinity	L1: <3% of map unit has a moderate to high salinity risk or is presently saline	L1: <3% of map unit has a moderate to high salinity risk or is presently saline	L1: <3% of map unit has a moderate to high salinity risk or is presently saline
Subsurface Acidification	H2: >70% of map unit has a high subsurface acidification risk or is presently acid	H2: >70% of map unit has a high subsurface acidification risk or is presently acid	H2: >70% of map unit has a high subsurface acidification risk or is presently acid
Flood risk	L1: <3% of the map unit has a moderate to high flood risk	L1: <3% of the map unit has a moderate to high flood risk	L1: <3% of the map unit has a moderate to high flood risk
Water logging	L2: 3-10% of map unit has a moderate to very high waterlogging risk	L2: 3-10% of map unit has a moderate to very high waterlogging risk	H2: >70% of map unit has a moderate to very high waterlogging risk
Phosphorus export risk	H2: >70% of map unit has a high to extreme phosphorus export risk	H2: >70% of map unit has a high to extreme phosphorus export risk	H2: >70% of map unit has a high to extreme phosphorus export risk

## 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> <i>"Native vegetation should not be cleared if it comprises a high level of biodiversity."</i></p> <p><u>Assessment:</u> The area proposed to be cleared contains regionally significant vegetation and locally significant habitats, including vegetation that is representative of threatened and priority ecological communities, habitat for conservation significant fauna, vegetation within a Bush Forever site, and significant wetland vegetation.</p>	At variance	Yes  Refer to Sections 3.2.1-3.2.6, above.
<p><u>Principle (b):</u> <i>"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."</i></p> <p><u>Assessment:</u> The area proposed to be cleared contains significant foraging habitat for Carnaby's cockatoo, as well as suitable habitat for several other conservation significant fauna species.</p>	At variance	Yes  Refer to Section 3.2.1, above.
<p><u>Principle (c):</u> <i>"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."</i></p> <p><u>Assessment:</u> The area proposed to be cleared contains potential habitat for five flora species listed under the BC Act. Appropriately timed targeted flora surveys did not identify threatened flora within the application area. Given this, it is not considered for the proposed clearing to impact significant habitat for threatened flora.</p>	Not likely to be at variance	Yes  Refer to Section 3.2.2, above.
<p><u>Principle (d):</u> <i>"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."</i></p> <p><u>Assessment:</u> The area proposed to be cleared contains native vegetation that is may be representative of the Banksia Woodlands of the Swan Coastal Plain threatened ecological community, which is listed as Endangered under the EPBC Act, and the Tuart woodlands and forests of the Swan Coastal Plain, which is listed as Critically Endangered under the EPBC Act.</p>	Not likely to be at variance	Yes  Refer to Section 3.2.3, above.
<b>Environmental value: significant remnant vegetation and conservation areas</b>		
<p><u>Principle (e):</u> <i>"Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."</i></p> <p><u>Assessment:</u> The extent of the mapped vegetation type and native vegetation in the local area is inconsistent with the national objectives and targets for biodiversity conservation in Australia, however, is consistent with the 10 per cent threshold for constrained areas. The vegetation proposed to be cleared contributes to vegetation connectivity and ecological linkages in the local area.</p>	Not likely to be at variance	Yes  Refer to Section 3.2.4, above.
<p><u>Principle (h):</u> <i>"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."</i></p> <p><u>Assessment:</u> Given the application area is located within Bush Forever Site 472, the proposed clearing will have an impact on the environmental values of a conservation area.</p>	At variance	Yes  Refer to Section 3.2.5, above.
<b>Environmental value: land and water resources</b>		
<p><u>Principle (f):</u> <i>"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."</i></p>	At variance	Yes



Assessment against the clearing principles	Variance level	Is further consideration required?
<b>Assessment:</b> Given two wetlands (UFI 7079 and UFI 7069) are mapped within the application area, the application area contains vegetation growing in association with a wetland.		<i>Refer to Section 3.2.6, above.</i>
<b>Principle (g):</b> <i>"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."</i> <b>Assessment:</b> The mapped soils are moderately to highly susceptible to wind erosion, waterlogging, subsurface acidification, and phosphorus export. The proposed clearing has the potential to cause land degradation where there is significant disturbance of topsoil and if bare ground is left exposed to weathering for an extended period between clearing and development.	Not likely to be at variance	Yes <i>Refer to Section 3.2.7, above.</i>
<b>Principle (i):</b> <i>"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."</i> <b>Assessment:</b> The proposed clearing does not have the potential to impact groundwater quality.	Not likely to be at variance	Yes <i>Refer to Section 3.2.7, above.</i>
<b>Principle (j):</b> <i>"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."</i> <b>Assessment:</b> While the majority of the application area is mapped as having a low risk of flooding and waterlogging, the soils associated with the mapped wetlands (UFI 7079 and UFI 7069) within the application area have a high risk of waterlogging. However, noting the topographic contours of the site, the disturbed nature of the vegetation in these areas, and that the applicant will implement surface water and stormwater management practices as part of its EMP and WMP, it is not considered likely that the proposed clearing will cause, or exacerbate, the incidence or intensity of flooding.	Not likely to be at variance	Yes <i>Refer to Section 3.2.7, above</i>

## 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.

Condition	Description
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.
Completely degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

## Appendix F. Offset calculator value justification

### Significant wetland vegetation – Land acquisition and revegetation

#### WA Environmental Offsets Calculator Rationale for scores used in the offset calculator

Calculation	Score (Area)	Rationale
<b>Conservation significance</b>		
Description	Native vegetation growing within a Conservation Category Wetland (CCW).	The proposed clearing will impact on 0.90 hectares of native vegetation that has values that are commensurate with a Conservation Category Wetland.
Type of environmental value	Wetland/watercourse	Wetland vegetation
Conservation significance of environmental value	A category or type of wetland or watercourse for which an offset is required	The clearing of native vegetation that contains values that are commensurate with a CCW is considered to constitute a significant residual impact for which an offset is required.
Landscape-level value impacted	yes/no	The impact is to an area of wetland vegetation in hectares.
<b>Significant impact</b>		
Description	Clearing of native vegetation that contains values consistent with a CCW	Native vegetation that contains values that are commensurate with a CCW is proposed to be cleared for the purpose of developing a New Youth Detention Facility.
Significant impact (hectares) / Type of feature	0.90	Based on wetland mapping from the Geomorphic Wetlands of the Swan Coastal Plain (DBCA-019) dataset and advice from DBCA, the total area of native vegetation that has values commensurate with a CCW within the application area is 0.9 hectares (0.3 hectares within UFI 7079 and 0.6 hectares within UFI 7069).
Quality (scale) / Number	6.00	Based on the available information from flora and vegetation surveys (Emerge, 2025b; 2024b) and a wetland assessment (Emerge, 2024c), the wetland vegetation within the application area is in Degraded to Very Good (Keighery, 1994) condition. Approximately 80 per cent of the wetland vegetation within the application area is in Good to Very Good (Keighery, 1994) condition. The application area occurs within the Swan Coastal Plain, on which wetland vegetation has been highly impacted by anthropomorphic activity. However, the wetland vegetation is subject to ongoing threatening processes including weed invasion and edge effects from adjacent roads.

Calculation	Score (Area)	Rationale
<b>Rehabilitation credit</b>		
Description	Onsite rehabilitation within native vegetation with values commensurate with a CCW.	Onsite rehabilitation (weed management and infill planting with native wetland vegetation) adjacent to the application area, within 50 metres of the mapped boundaries of UFI 7079 and UFI 7069.
Proposed rehabilitation (area in hectares)	1.73	The area of native wetland vegetation within 50 metres of the mapped boundaries of UFI 7079 and UFI 7069 that is proposed to be rehabilitated.
Current quality of rehabilitation site	5.00	Based on the available information from flora and vegetation surveys (Emerge, 2025b; 2024b) and a wetland assessment (Emerge, 2024c), the wetland vegetation within the proposed rehabilitation areas is in Degraded to Very Good (Keighery, 1994) condition, with the majority in Good (Keighery, 1994) condition.
Future quality WITHOUT rehabilitation	5.00	Noting the current condition of the proposed rehabilitation areas, the September 2024 fire in the southern portion of the site, and occurrence within Bush Forever Site 472, it is unlikely that the quality of native wetland vegetation in these areas will change significantly without active management.
Future quality with rehabilitation	6.00	Onsite rehabilitation (weed management and infill planting with native wetland vegetation) is expected to increase the quality of native wetland vegetation in the rehabilitation areas to a similar quality to the proposed clearing area. This also accounts for some uncertainty in the quality able to be achieved due to the September 2024 fire in the southern portion of the site.
Time until ecological benefit (years)	12	It is estimated that the benefits of weed management and infill planting for improving the quality of native wetland vegetation will be achieved within 10 years. An additional two years have been allowed to account for the delay in the commencement of the rehabilitation action (assumed to commence within two years of the permit start date).
Confidence in rehabilitation results	80 %	There is a relatively high level of confidence that the rehabilitation action will improve the quality of native wetland vegetation with best practice techniques.
<b>Offset</b>		
Description	Acquisition and conservation of wetland native vegetation that reflects values of a CCW	A single offset involving the acquisition and conservation in perpetuity of an offset site that contains wetland native vegetation that has contains values that are commensurate with a CCW.
Proposed offset (area in hectares)	5.78	The acquisition and conservation of 5.78 hectares of native wetland vegetation that has values that are commensurate with a CCW is required to offset the residual impacts to this environmental value by 100%, accounting for the rehabilitation credit above.
Current quality of offset site / Start number (of type of feature)	7.00	It is assumed that the native wetland vegetation within the offset site will be in Good to Very Good (Keighery, 1994) condition and occurs on the southern Swan Coastal Plain. NOTE: This is consistent with standard values used for offset calculations relating to contributions to the Part V Offsets Fund.
Future quality WITHOUT offset (scale) / Future number WITHOUT offset	7.00	It is assumed that the offset site is currently rural-zoned freehold land and therefore, that the quality of the wetland native vegetation within the offset site is unlikely to change

Calculation	Score (Area)	Rationale
		significantly over a one-year period in the absence of the offset.
Future quality WITH offset (scale) / Future number WITH offset	7.00	It is assumed that the offset site will be transferred into conservation estate following purchase and will be managed to maintain the quality of the existing values.
Time until ecological benefit (years)	1.00	As the proposed offset relates to acquiring and conserving an existing area of native vegetation the minimum of one year for this field is applied.
Confidence in offset result (%)	90 %	There is a high level of confidence that the offset will be achieved, and that conservation of the offset site (in perpetuity) would successfully mitigate the future risk of loss of the site and maintain its current quality.
Duration of offset implementation (maximum 20 years)	20.00	The offsite site will be transferred into conservation estate following purchase and will be managed in perpetuity. Therefore, the maximum of 20 years is applied.
Time until offset site secured (years)	3.00	It is assumed that the offset site will be purchased and secured in conservation estate within 3 years of the proposed clearing commencing.
Risk of future loss WITHOUT offset (%)	15.0%	It is assumed that the offset site to be acquired is currently zoned rural or similar and is not subject to any existing planning approvals.
Risk of future loss WITH offset (%)	5.0%	The future conservation (in perpetuity) of the offset site would result in increased security and substantially reduce the risk of loss.

#### Carnaby's cockatoo foraging habitat

##### WA Environmental Offsets Calculator Rationale for scores used in the offset calculator

Calculation	Score (Area)	Rationale
<b>Conservation significance</b>		
Description	Carnaby's cockatoo foraging habitat	The proposed clearing will impact on 0.55 hectares of significant foraging habitat for Carnaby's cockatoo.
Type of environmental value	Species (flora/fauna)	Carnaby's cockatoo is listed as a threatened fauna species under the Commonwealth EPBC Act and state BC Act.
Conservation significance of environmental value	Rare/threatened species - endangered	Carnaby's cockatoo is listed as Endangered under both the EPBC Act and BC Act.
Landscape-level value impacted	yes/no	The impact is to an area of foraging habitat in hectares.
<b>Significant impact</b>		
Description	Clearing of native vegetation that comprises significant foraging habitat for Carnaby's cockatoo.	Native vegetation that comprises significant foraging habitat for Carnaby's cockatoo is proposed to be cleared for the construction of the new youth detention centre.
Significant impact (hectares)	0.55	Based on available mapping from the black cockatoo habitat assessment (Emerge, 2024a), the application comprises 0.55 hectares of native foraging habitat for Carnaby's cockatoo.

Calculation	Score (Area)	Rationale
Quality Number (scale) /	7.00	<p>Based on the available information from the black cockatoo habitat assessment (Emerge, 2024a), the native foraging habitat for Carnaby's cockatoo within the application area is in Good (Keighery, 1994) condition. The majority of the native foraging habitat within the application area (0.51 hectares) is primary foraging habitat in the form of marri trees and Banksia species.</p> <p>The application area is located within 10 kilometres of 21 mapped black cockatoo roost sites, including one within 400 metres of the application area. Evidence of foraging by Carnaby's cockatoo in the form of chewed banksia fruits was also observed during the black cockatoo habitat assessment (Emerge, 2024a). Therefore, the application area is likely to support foraging by roosting populations in the local area.</p> <p>The application is also located within an extensively modified part of the species' range and available foraging habitat in the local area is limited.</p>
<b>Rehabilitation credit</b>		
N/A	N/A	No onsite rehabilitation or revegetation proposed (i.e., within the application area).
<b>Offset</b>		
Description	Revegetation and rehabilitation of native vegetation that comprises significant foraging habitat for Carnaby's cockatoo	A single offset involving the revegetation of native vegetation within Lot 501 on Deposited Plan 69593 (Crown Reserve 50756) that provides significant foraging habitat for Carnaby's cockatoo.
Proposed offset (area in hectares)	2.18	The revegetation of 2.18 hectares of native vegetation that provides significant foraging habitat for Carnaby's cockatoo is required to offset the residual impacts to this environmental value by 100%.
Current quality of offset site	3.00	<p>A site inspection undertaken by DWER officers indicates that the revegetation offset area is in Completely Degraded (Keighery, 1994) condition and comprises predominantly planted non-native trees over weeds. Foraging habitat for Carnaby's cockatoo within the revegetation offset area at present is limited to scattered primary foraging trees (i.e., marri) within a canopy dominated by non-native trees.</p> <p>The current quality score also considers the contextual factors of the revegetation offsite area (i.e., proximity to roost sites and occurring within an extensively modified part of the species' range).</p>
Future quality WITHOUT offset	3.00	Noting the current condition of the proposed revegetation offset areas and location within Crown Reserve 50756 which is managed for the purpose of a prison and telecommunications site, it is unlikely that the quality of Carnaby's cockatoo foraging habitat will change significantly without active management
Future quality WITH offset	6.00	<p>With best practice revegetation methodology, weed management, and remedial actions, it is assumed that the proposed revegetation offset will improve the quality of Carnaby's cockatoo foraging habitat to a Good (Keighery, 1994) condition through the planting of primary foraging trees (Banksia species and marri).</p> <p>The future quality score also considers the contextual factors of the revegetation offsite area (i.e., proximity to roost sites and occurring within an extensively modified part of the species' range).</p>



Calculation	Score (Area)	Rationale
Time until ecological benefit (years)	12.00	<p>In order to restore primary foraging habitat for Carnaby's cockatoo, it is expected that the key species to be planted will include <i>Banksia attenuata</i>, <i>Banksia menziesii</i> and <i>marri</i>. Therefore, it is assumed that the benefits of revegetation for FRTBC foraging habitat will be available after 12 years. This is a conservative measure based on available literature (e.g., Lee et al. (2013) who identified evidence of foraging on <i>marri</i> and <i>Banksia</i> in rehabilitated mine pit areas, ranging from 8-14 years of age) and the understanding that proteaceous species are relatively fast maturing and have high calorific value at a relatively young age.</p> <p>An extra two years have been allowed to account for the delay in commencement of the revegetation (assumed to commence within two years of permit start date).</p>
Confidence in offset result (%)	80%	There is a relatively high level of confidence that the planting of primary foraging habitat for Carnaby's cockatoo within the proposed revegetation offset site in line with best practice revegetation techniques will result in the estimated quality improvement.
Duration of offset implementation (maximum 20 years)	20.00	While no change in land tenure or security mechanisms for the revegetation offset site are proposed, it is intended that the revegetation offset site will be established and maintained to a level that is self-sustaining in perpetuity. Therefore, the maximum value of 20 years is applied.
Time until offset site secured (years)	1.00	No change in land tenure or security mechanisms for the revegetation offset site are proposed. Therefore, the minimum value of one year is applied.
Risk of future loss WITHOUT offset (%)	15.0%	There is a moderate risk of loss given the revegetation offset area is within Crown Reserve 50756 which is managed by the Department of Justice for the purpose of a prison and telecommunications site.
Risk of future loss WITH offset (%)	15.0%	<p>Crown Reserve 50756 is proposed to remain vested for the purpose of a prison and telecommunications site and no further security mechanisms are proposed through the offset. While a higher level of protection for the revegetation offset area (i.e., a reduced risk of future loss with offset) is preferable, the offset site is considered acceptable in this instance, given:</p> <ul style="list-style-type: none"> <li>- the proposed offset will improve the quality of foraging habitat for Carnaby's cockatoo in close proximity to the impact site, which is a preferred environmental outcome in an extensively modified part of the species' range,</li> <li>- the proposed offset will enhance connectivity between intact remnants of native vegetation within Bush Forever Site 472, and</li> <li>- a degree of protection is afforded to the revegetation within the offset area, given the vegetation would be planted for conservation purposes and under a binding undertaking to establish and maintain the vegetation (i.e., the clearing permit). Therefore, any future clearing would be subject to the requirements of Part V of the EP Act..</li> </ul>

## Appendix G: Biological survey information excerpts

### *Wetland Assessment (Emerge, 2025c)*

The applicant commissioned the Wetland Assessment (Emerge, 2025c) to confirm the occurrence of wetland vegetation within the application area.

The wetland evaluation was undertaken in accordance with 'A methodology for the evaluation of wetlands on the Swan Coastal Plain, Western Australia' (DBCA, 2017) and involved recording of wetland indicative flora species within the site, soil test pits and collection of soil core samples and review of groundwater data.

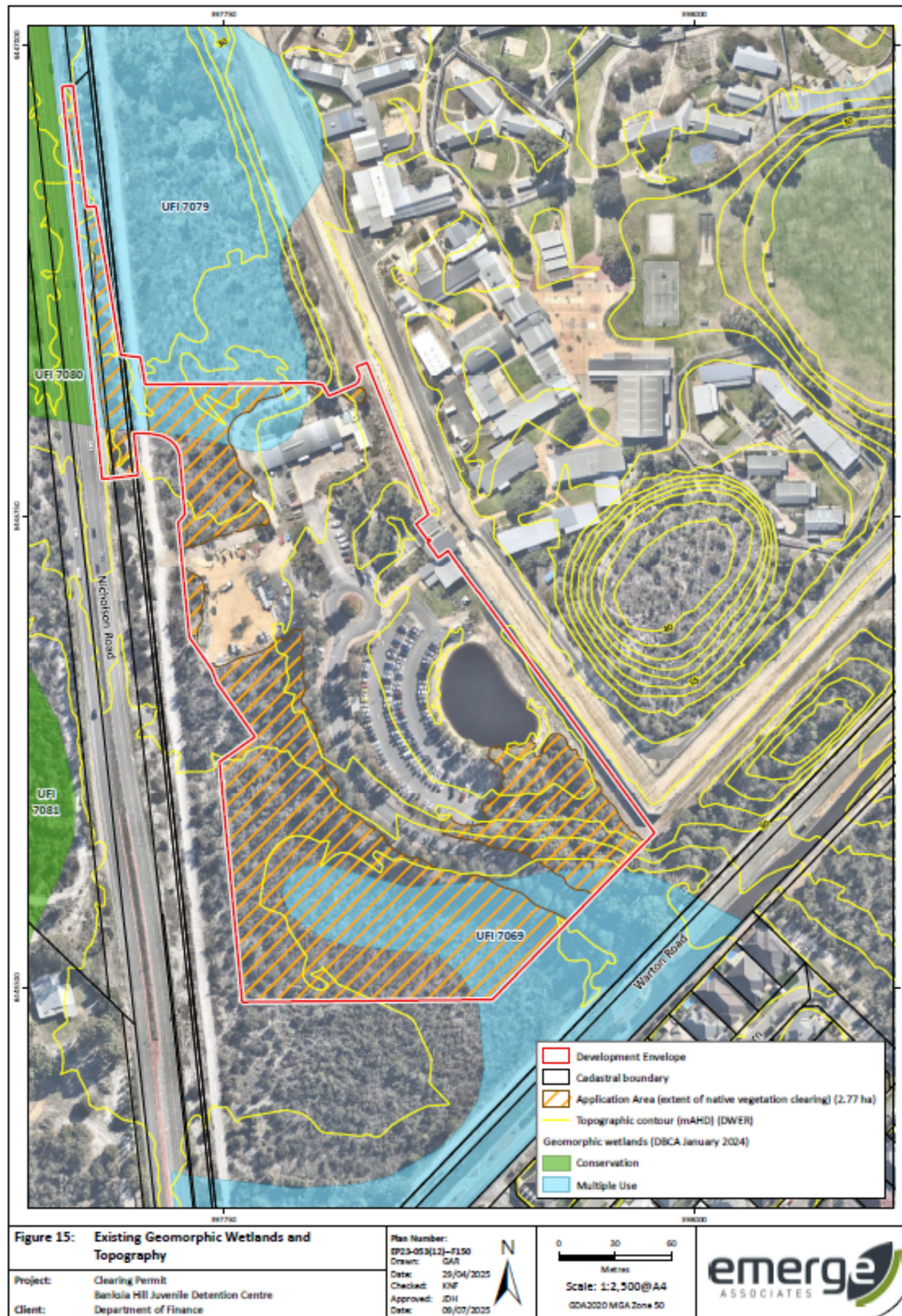


Figure 6 ; Current Geomorphic wetland mapping within the application area.



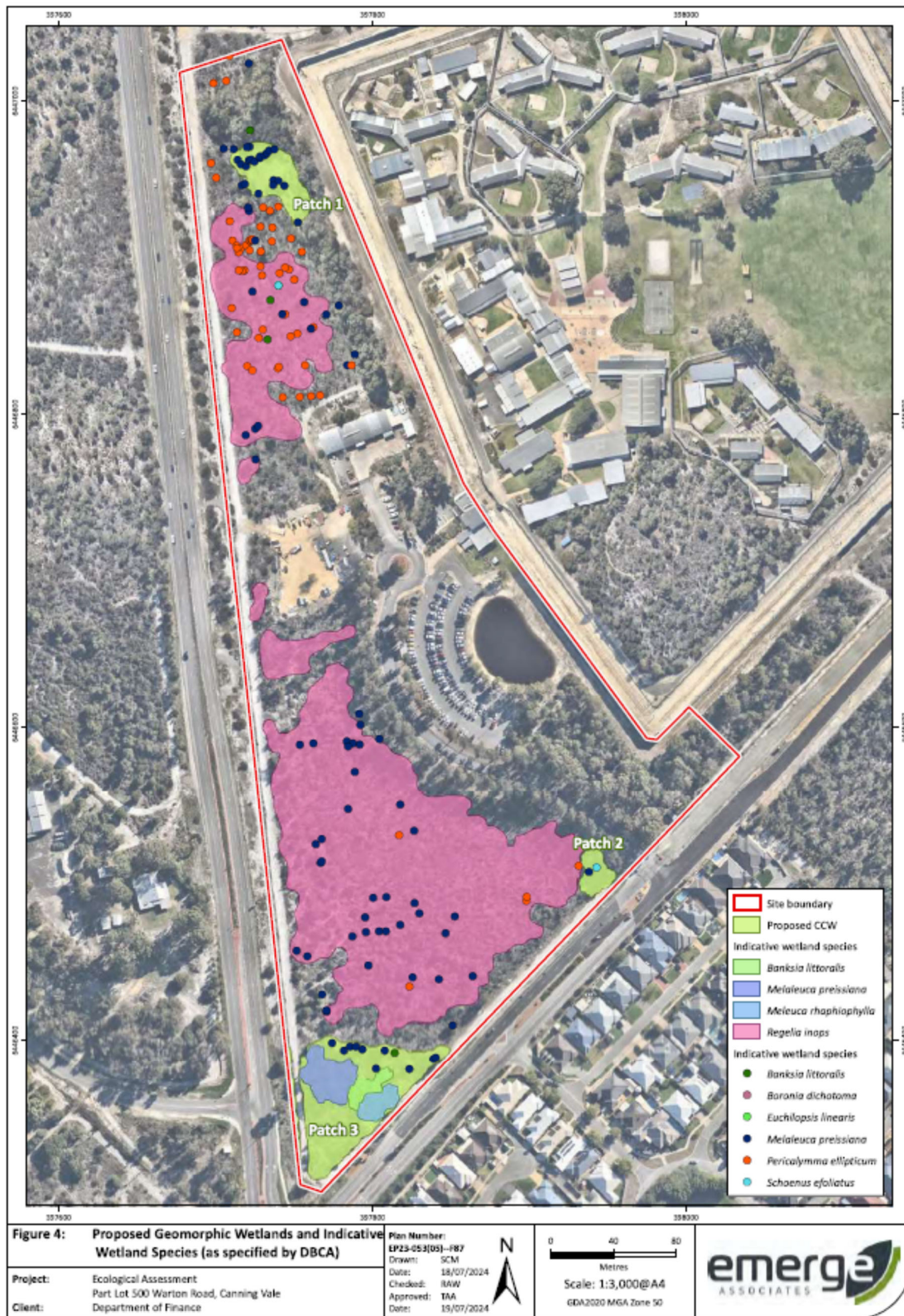


Figure 7: Applicant's proposed new Geomorphic wetland mapping and location of wetland species within the application area.



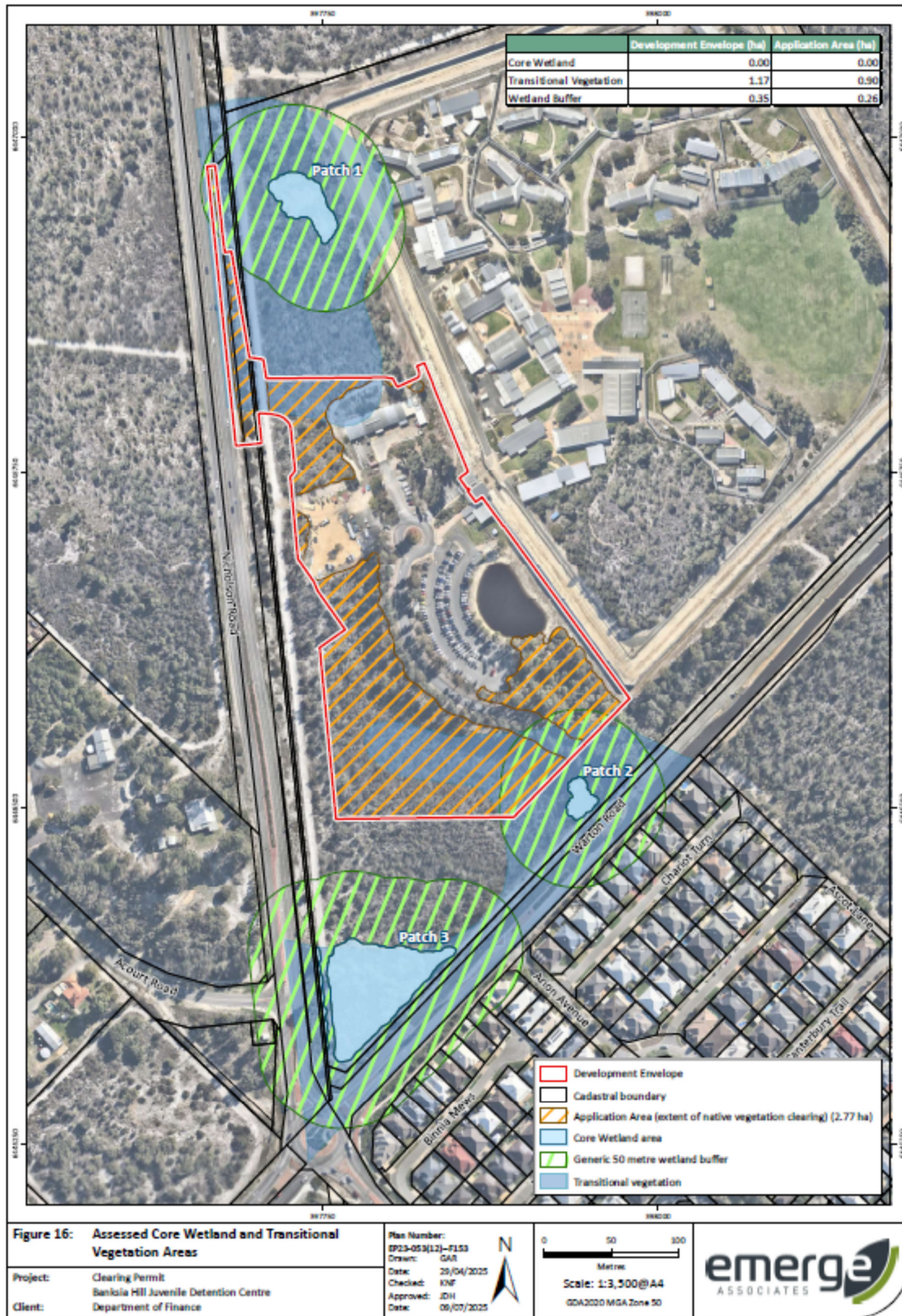


Figure 8: Applicant's proposed core wetland and transitional vegetation areas within the application area.



# *Vegetation and flora survey (Emerge, 2024a)*

The applicant commissioned a flora and vegetation survey of the application area (Emerge 2024a) which was undertaken in July 2023 and May 2024 in accordance with Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment (EPA, 2020).



Figure 9: Mapped vegetation types within the application area



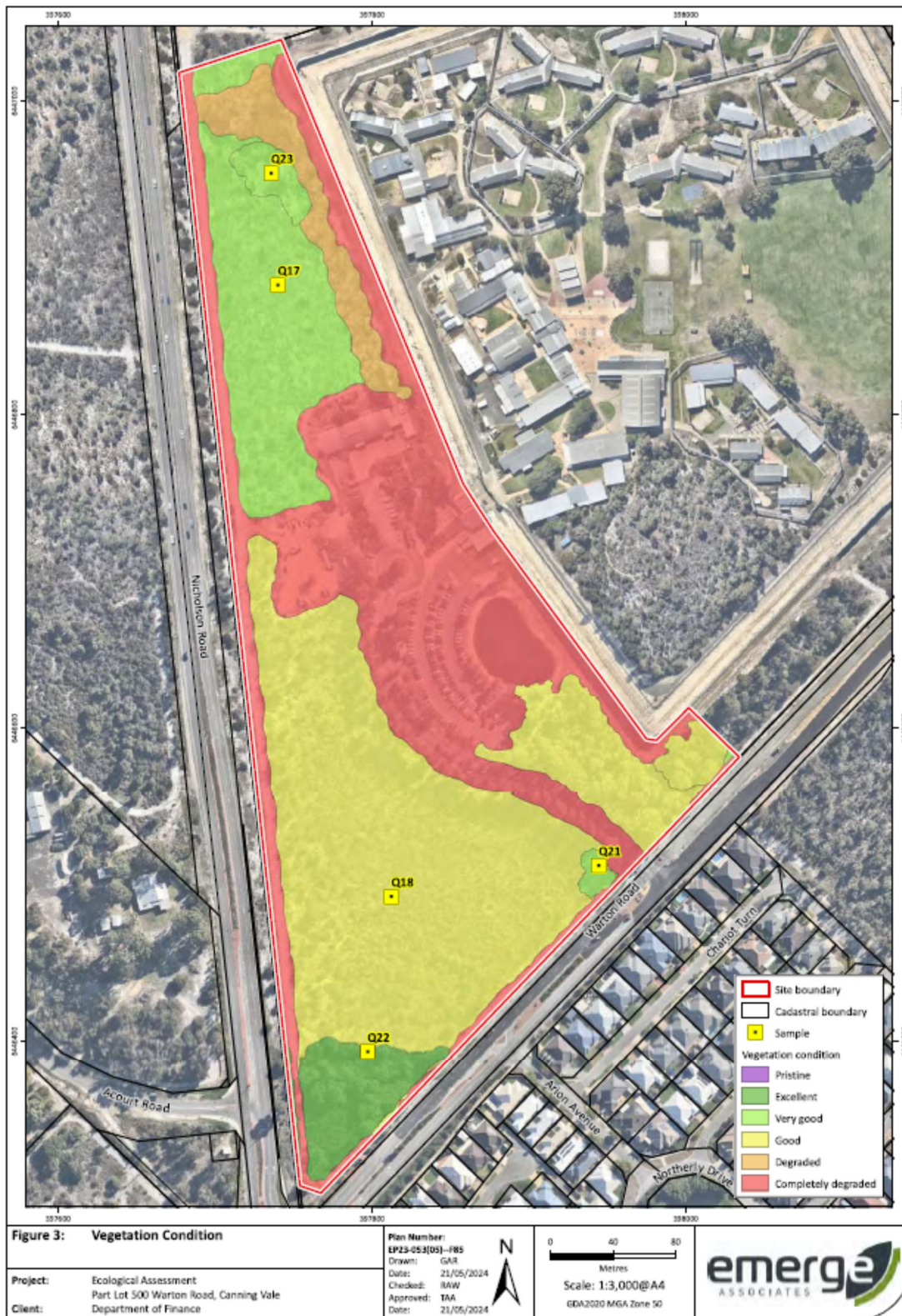










Figure 10: Mapped vegetation condition within the application area



Table 2: Vegetation unit descriptions (Emerge 2024a).

Code	Description	Sample/s	Total area (ha)	Proportion of site (%)	Representative photograph
<b>BaBmAh Cf</b>	Open woodland of <i>Banksia attenuata</i> and <i>Banksia menziesii</i> over open to sparse shrubland of <i>Allocasuarina humilis</i> , <i>Bossiaea eriocarpa</i> , <i>Calytrix flavescens</i> , <i>Hibbertia hypericoides</i> and <i>Stirlingia latifolia</i> over sparse to open herbland of <i>Lyginia barbata</i> , <i>Paranthera moorokatta</i> (P2) and <i>Trachymene pilosa</i> over sparse grassland of <i>Amphipogon turbinatus</i> and <i>Austrostipa compressa</i> .	Q13, Q14, Q16	15.43	19.07	
<b>BaBmBe Si</b>	Open woodland of <i>Banksia attenuata</i> , <i>Banksia ilicifolia</i> , <i>Banksia menziesii</i> and <i>Nuytsia floribunda</i> over open shrubland of <i>Melaleuca thymoides</i> and <i>Xanthorrhoea preissii</i> over low shrubland of <i>Acacia pulchella</i> var. <i>glaberrima</i> , <i>Bossiaea eriocarpa</i> , <i>Gastrolobium capitatum</i> and <i>Scholtzia involucreata</i> over forbland of <i>Dasypogon bromeliifolius</i> , <i>Hensmania turbinata</i> , <i>Lomandra nigricans</i> , <i>Lomandra suaveolens</i> and <i>Patersonia occidentalis</i> over herbland of <i>Desmodium flexuosus</i> .	Q4, Q5, R8, Q9, Q10, Q11, Q15, Q19	16.64	20.56	
Code	Description	Sample/s	Total area (ha)	Proportion of site (%)	Representative photograph
<b>AcKg</b>	Tall shrubland of <i>Adenanthos cygnorum</i> and <i>Kunzea glabrescens</i> over scattered <i>Jacksonia furcellata</i> over low shrubland of <i>Gompholobium tomentosum</i> , <i>Hemiandra pungens</i> and <i>Hibbertia subvaginata</i> over herbland of <i>Hyalosperma cotula</i> and * <i>Gladiolus caryophyllaceus</i> over non-native grassland of * <i>Briza maxima</i> and * <i>Ehrharta calycina</i> .	R12	2.10	2.59	
<b>BaBm</b>	Recently burnt open woodland of <i>Banksia attenuata</i> and <i>Banksia menziesii</i> with isolated understorey of scattered shrubs, herbs and grasses including <i>Calytrix flavescens</i> , <i>Anigozanthos manglesii</i> and <i>Austrostipa compressa</i> .	-	3.90	4.82	



Code	Description	Sample/s	Total area (ha)	Proportion of site (%)	Representative photograph
<b>BaBmDb Pc</b>	Low open forest of <i>Banksia attenuata</i> , <i>Banksia ilicifolia</i> and <i>Banksia menziesii</i> over open shrubland of <i>Jacksonia furcellata</i> , <i>Kunzea glabrescens</i> , <i>Melaleuca thymoides</i> and <i>Xanthorrhoea preissii</i> over low shrubland of <i>Acacia pulchella</i> var. <i>glaberrima</i> , <i>Bassia eriocarpa</i> , <i>Hibbertia subvaginata</i> and <i>Styphelia conostephioides</i> over forbland of <i>Dasypogon bromeliifolius</i> , <i>Phlebocarya ciliata</i> , <i>Patersonia occidentalis</i> , <i>Lomandra nigricans</i> and <i>Lomandra preissii</i> over herbland of <i>Desmocladius flexuosus</i> .	Q3, Q6	3.54	4.37	
<b>BaBmRi Df</b>	Low open forest of <i>Banksia attenuata</i> , <i>Banksia ilicifolia</i> and <i>Banksia menziesii</i> over open shrubland of <i>Calytrix flavescens</i> , <i>Kunzea glabrescens</i> and <i>Regelia inops</i> over low shrubland of <i>Styphelia xerophylla</i> over forbland of <i>Dasypogon bromeliifolius</i> and <i>Lyginia barbata</i> over herbland of <i>Chamaescilla corymbosa</i> and <i>Desmocladius flexuosus</i> .	Q2	2.00	2.47	

Code	Description	Sample/s	Total area (ha)	Proportion of site (%)	Representative photograph
<b>BiMpDb</b>	Open woodland of <i>Banksia attenuata</i> , <i>Banksia ilicifolia</i> and <i>Melaleuca preissiana</i> over open shrubland of <i>Adenanthos cygnorum</i> , <i>Astartea scoparia</i> , <i>Kunzea glabrescens</i> and <i>Regelia inops</i> over low shrubland of <i>Adenanthos obovatus</i> over forbland of <i>Dasypogon bromeliifolius</i> , <i>Lyginia imberbis</i> , <i>Lomandra preissii</i> and <i>Phlebocarya ciliata</i> .	Q1	0.45	0.56	
<b>CcEg</b>	Open forest of <i>Corymbia calophylla</i> and <i>Eucalyptus gomphocephala</i> over <i>Allocasuarina fraseriana</i> , <i>Banksia attenuata</i> and <i>Banksia menziesii</i> over shrubland of <i>Adenanthos cygnorum</i> over low shrubland of <i>Hibbertia hypericoides</i> , <i>Stirlingia latifolia</i> and <i>Styphelia xerophylla</i> .	R7	1.67	2.06	

Code	Description	Sample/s	Total area (ha)	Proportion of site (%)	Representative photograph
CfRI	Scattered <i>Banksia littoralis</i> and <i>Melaleuca preissiana</i> trees over shrubland of <i>Adenanthos cygnorum</i> , <i>Calytrix fraseri</i> and <i>Regelia inops</i> over forbland of <i>Dasypogon bromeliifolius</i> , <i>Phlebocarya ciliata</i> and <i>Schoenus efoliatus</i> over herbland of <i>Stylidium araeophyllum</i> and <i>Stylidium repens</i> .	Q17	1.38	1.71	
MpAcRi	Open woodland of <i>Melaleuca preissiana</i> over shrubland of <i>Adenanthos cygnorum</i> , <i>Calytrix fraseri</i> , <i>Jacksonia furcellata</i> and <i>Regelia inops</i> over low shrubland of <i>Acacia pulchella</i> var. <i>glaberrima</i> over forbland of <i>Phlebocarya ciliata</i> .	Q18	3.73	4.61	



### Basic Fauna and Targeted Black Cockatoo Assessment (Emerge, 2024b)

The applicant commissioned a fauna and habitat assessment survey of the application area (Emerge 2024b) which was undertaken in July 2023 and August 2024 in accordance with Technical Guidance – Fauna Surveys for Environmental Impact Assessment (EPA, 2020).



Figure 11: Mapped fauna habitat types within the application area



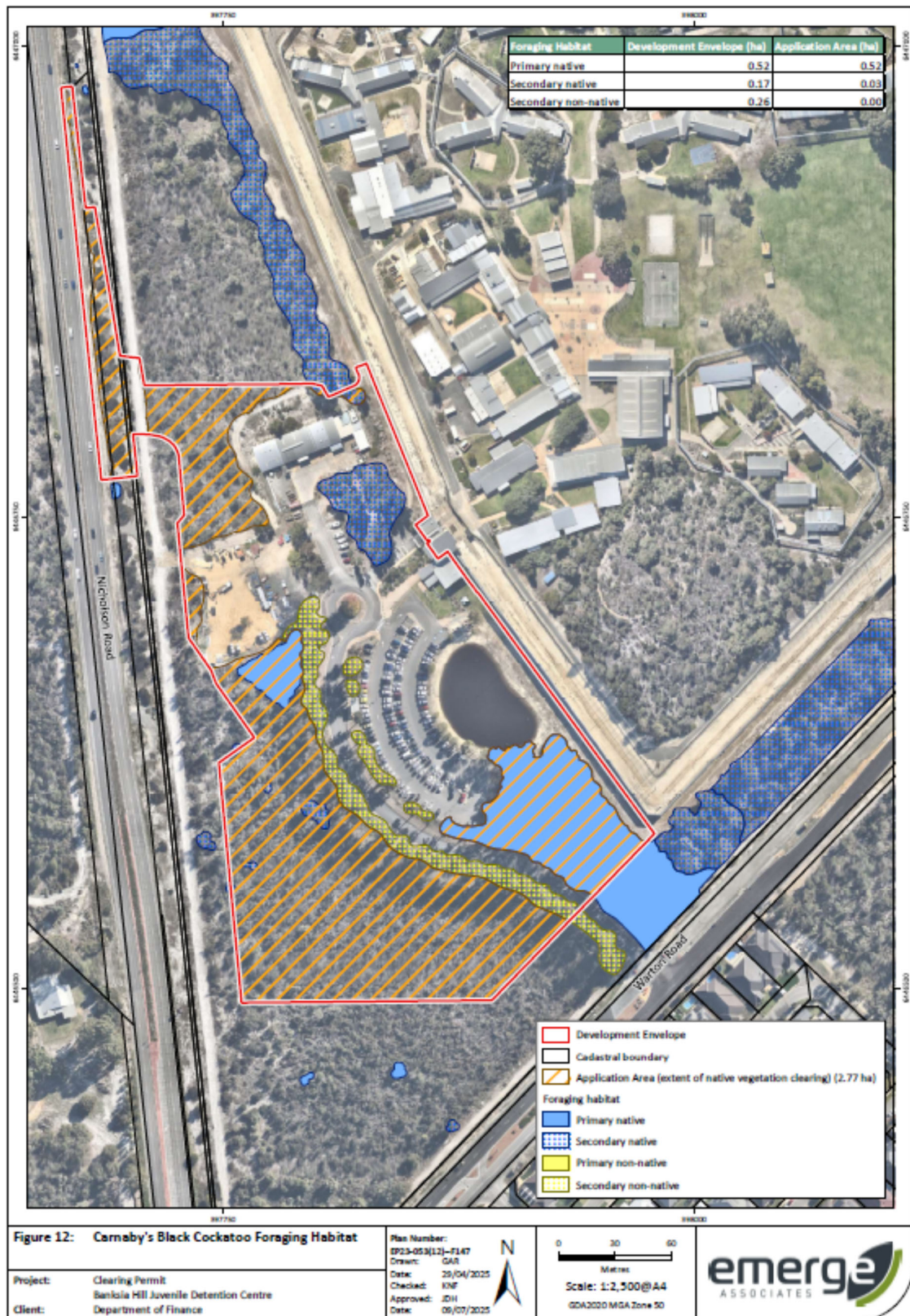


Figure 12: Mapped Carnaby's cockatoo habitat within the application area

## 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)
- Cadastre (LGATE-218)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- 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

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

### H.2. References

Department of Housing and Works (2025) *Clearing permit application CPS 11152/1*, received July 2025 (DWER Ref: DWERDT1162504).

Australian Museum (2019) *Perengrine falcon (Falco peregrinus)*. The Australian Museum, New South Wales. Available from: <https://australian.museum/learn/animals/birds/perengrine-falcon/>.

Bureau of Meteorology (BoM) (2025) Climate Data Online. Commonwealth of Australia, Canberra, ACT. Available from: <http://www.bom.gov.au/climate/data/> (accessed August 2025).

Commonwealth of Australia (2001) *National Objectives and Targets for Biodiversity Conservation 2001-2005*, Canberra.

- 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
- Del Marco, A., Western Australian Local Government Association, and Perth Biodiversity Project (W.A.) (2004) *Local government biodiversity planning guidelines for the Perth Metropolitan Region*. Western Australian Local Government Association, West Perth, Western Australia.
- Department of Environment and Conservation (DEC) (2008) *Forest black cockatoo (Baudin's cockatoo, Calyptorhynchus baudinii, and forest red-tailed black cockatoo, Calyptorhynchus banksii naso) Recovery Plan*. Department of Environment and Conservation, Canberra.
- Department of Biodiversity, Conservation and Attractions (DBCA) (2023) *Priority Ecological Communities for Western Australia, Version 35, 19 June 2023*. Department of Biodiversity, Conservation and Attractions, Western Australia. Available from: <https://www.dbca.wa.gov.au/wildlife-and-ecosystems/threatened-ecological-communities>.
- Department of Biodiversity, Conservation and Attractions (DBCA) (2025a) *Species and Communities Branch flora, wetland and fauna advice for clearing permit application CPS 11152/1*, received September 2025. Department of Biodiversity, Conservation and Attractions, Western Australia (DWER Ref: DWERDT1210891).
- Department of Biodiversity, Conservation and Attractions (DBCA) (2025b) *Species and Communities Branch threatened flora survey results October 2025 for CPS 11152/1*, received October 2025. Department of Biodiversity, Conservation and Attractions, Western Australia (DWER Ref: DWERDT225300).
- Department of Biodiversity, Conservation and Attractions (DBCA) (2025c) *Species and Communities Branch threatened flora survey results December 2025 for clearing permit application CPS 11152/1*, received December 2025. Department of Biodiversity, Conservation and Attractions, Western Australia (DWER Ref: DWERDT1246035).
- Department of Environment and Conservation (DEC) (2009) *Grand Spider Orchid (Caladenia huegelii) Recovery Plan*. Commonwealth Department of the Environment, Water, Heritage and the Arts, Canberra. Available from: <http://www.environment.gov.au/resource/grand-spider-orchid-caladenia-huegelii-recovery-plan>.
- Department of the Environment and Energy (DoEE) (2016) *Approved Conservation Advice (incorporating listing advice) for the Banksia Woodlands of the Swan Coastal Plain ecological community*. Department of the Environment and Energy, Canberra. Available from: <http://www.environment.gov.au/biodiversity/threatened/communities/pubs/131-conservation-advice.pdf>.
- Department of the Environment and Energy (DoEE) (2019) *Approved Conservation Advice (incorporating listing advice) for the Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain ecological community*. Department of the Environment and Energy, Canberra. Available from: <http://www.environment.gov.au/biodiversity/threatened/communities/pubs/153-conservation-advice.pdf>.
- Department of Environment Regulation (DER) (2013) *A guide to the assessment of applications to clear native vegetation*. Perth. Available from: [https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2\\_assessment\\_native\\_veg.pdf](https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf).
- Department of Parks and Wildlife (2013) *Carnaby's cockatoo (Calyptorhynchus latirostris) Recovery Plan*. Department of Parks and Wildlife, Perth, Western Australia.
- Department of Primary Industries and Regional Development (DPIRD) (2025) *NRInfo Digital Mapping. Department of Primary Industries and Regional Development*. Government of Western Australia. URL: <https://maps.agric.wa.gov.au/nrm-info/> (accessed August 2025).
- Department of Environment and Conservation (DEC) (2012) *Fauna profiles: Quenda, Isoodon obesulus fusciventer*. Department of Environment and Conservation, Western Australia.



- Department of Water and Environmental Regulation (DWER) (2025) *Site Inspection Report for Clearing Permit Application CPS 11152/1*, August 2025. Department of Water and Environmental Regulation, Western Australia
- Department of Biodiversity, Conservation and Attractions (DBCA) (2017) *A methodology for the evaluation of wetlands on the Swan Coastal Plain, Western Australia*, draft prepared by the Wetlands Section of the Department of Biodiversity, Conservation and Attractions and the Urban Water Branch of the Department of Water and Environmental Regulation, Perth.
- Department of the Environment, Water, Heritage and the Arts (DEWHA) (2008a) *Approved Conservation Advice for Diuris drummondii (Tall Donkey Orchid)*. Department of the Environment, Water, Heritage and the Arts. Available, Canberra. Available from: <http://www.environment.gov.au/biodiversity/threatened/species/pubs/4365-conservation-advice.pdf>.
- Department of the Environment, Water, Heritage and the Arts (DEWHA) (2008b) *Approved Conservation Advice for Diuris purdiei (Purdie's Donkey-orchid)*. Department of the Environment, Water, Heritage and the Arts, Canberra. Available from: <http://www.environment.gov.au/biodiversity/threatened/species/pubs/12950-conservation-advice.pdf>. In effect under the EPBC Act from 26-Mar-2008.
- Emerge Associates (Emerge) (2024a) *Basic Fauna and Targeted Black Cockatoo Assessment Lot 500 and Part Lot 501 Warton Road, Canning Vale*, received 16 July 2025 (DWER Ref: DWERDT1162505).
- Emerge Associates (Emerge) (2024b) *Detailed Flora and Vegetation Assessment, Lot 500 and Part Lot 501 Warton Road, Canning Vale*, received 16 July 2025 (DWER Ref: DWERDT1162505).
- Emerge Associates (Emerge) (2024c) *Wetland Assessment, Part Lot 500 Warton Road, Canning Vale*, received 16 July 2025 (DWER Ref: DWERDT1162505).
- Emerge Associates (Emerge) (2025a) *Supporting information for clearing permit application CPS 11152/1*, received 16 July 2025 (DWER Ref: DWERDT1162505).
- Emerge Associates (Emerge) (2025b) *Technical Memorandum: Flora, Vegetation and Fauna Assessment, Part Lot 34, 98, and 483 Nicholson Road, Canning Vale*, received 16 July 2025 (DWER Ref: DWERDT1162505).
- Environmental Protection Authority (EPA) (2016a) *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment*. Available from: [http://www.epa.wa.gov.au/sites/default/files/Policies\\_and\\_Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey\\_Dec13.pdf](http://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey_Dec13.pdf).
- Environmental Protection Authority (EPA) (2016b) *Technical Guidance – Sampling of short range endemic invertebrate fauna*. Available from: [https://www.epa.wa.gov.au/sites/default/files/Policies\\_and\\_Guidance/Tech%20guidance-%20Sampling-SREs-Dec-2016.pdf](https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/Tech%20guidance-%20Sampling-SREs-Dec-2016.pdf).
- Environmental Protection Authority (EPA) (2020) *Technical Guidance – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment*. Available from: [https://www.epa.wa.gov.au/sites/default/files/Policies\\_and\\_Guidance/2020.09.17%20-%20EPA%20Technical%20Guidance%20-%20Vertebrate%20Fauna%20Surveys%20-%20Final.pdf](https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/2020.09.17%20-%20EPA%20Technical%20Guidance%20-%20Vertebrate%20Fauna%20Surveys%20-%20Final.pdf).
- Environmental Protection Authority (EPA) (2019) *EPA Technical Report: Carnaby's Cockatoo in Environmental Impact Assessment in the Perth and Peel Region. Advice of the Environmental Protection Authority under Section 16(j) of the Environmental Protection Act 1986*. Environmental Protection Authority, Western Australia.
- Glossop, B., Clarke, K., Mitchell, D. and Barrett, G. (2011) *Methods for mapping of Carnaby's cockatoo habitat*. Department of Environment and Conservation, Bentley.
- Gibson, N., Keighery, B., Keighery, G., Burbidge, A., and Lyons, M. (1994) *A Floristic Survey of the Swan Coastal Plain*. Department of Conservation and Land Management. Perth, Western Australia.

- Government of Western Australia (2019a) *2018 South West Vegetation Complex Statistics. Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions, Perth. Available from: <https://catalogue.data.wa.gov.au/dataset/dbca>.
- Government of Western Australia (2019b) *2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions, Perth. Available from: <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>.
- Groom, C., Mawson, P., Roberts, J.D. and Mitchell, N.J. (2014) *Meeting an expanding human population's need whilst conserving a threatened parrot species in an urban environment*. WIT Transactions on Ecology and the Environment, 191, pp.1199-1212.
- Groom, C. (2015) *Roost site fidelity and resource use by Carnaby's Cockatoo (Calyptorhynchus latirostris), on the Swan Coastal Plain, Western Australia*. Thesis submitted for the degree of Doctor of Philosophy, University of Western Australia, Crawley.
- He, F. (2021) *The distribution of the threatened Black-striped Burrowing Snake (Neelaps calonotos) in the Perth region, Western Australia*.
- Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) *Vegetation Complexes of the Darling System, Western Australia*. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
- Invertebrate Solutions Pty Ltd (Invertebrate Solutions) (2024) *Targeted survey for Matters of National Environmental Significance (MNES) native bees – Banksia Hill Detention Centre, Canning Vale, Western Australia*, received 16 July 2025 (DWER Ref: DWERDT1162505).
- Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Le Roux, C. (2011) *Nocturnal roost tree, roost site and landscape characteristics of Carnaby's Black-Cockatoo (Calyptorhynchus latirostris) on the Swan Coastal Plain*. Thesis submitted for Degree Master of Science, Edith Cowan University, Joondalup.
- Rix, M.G., Huey, J.A., Cooper, S.J.B., Austin, A.D. and Harvey, M.S. (2018) *Conservation systematics of the shield-backed trapdoor spiders of the nigrum-group (Mygalomorphae, Idiopidae, Idiosoma): integrative taxonomy reveals a diverse and threatened fauna from south-western Australia*. ZooKeys, 756, pp. 1–121
- Stock, W., Finn, H., Parker, J. and Dodds, K. (2013) *Pine as fast food: foraging ecology of an endangered cockatoo in a forestry landscape*, PlosOne 2013, 8(4), pp. 1-12.
- Submission (2025) *Public submission in relation to clearing permit application CPS 11152/1*, received September 2025 (DWER Ref: DWERDT1210886).
- Threatened Species Scientific Committee (TSSC) (2020) Listing Advice *Lerista lineata* Perth Slider. Department of Agriculture, Water and the Environment, Canberra. Available from: <http://www.environment.gov.au/biodiversity/threatened/species/pubs/1346-listing-advice-01092020.pdf>.
- Valentine, L.E. and Stock, W. (2008) *Food Resources of Carnaby's Black Cockatoo (Calyptorhynchus latirostris) in the Gnarara Sustainability Strategy Study Area*. Edith Cowan University and Department of Environment and Conservation. December 2008.
- Western Australian Herbarium (1998-). *FloraBase - the Western Australian Flora*. Department of Biodiversity, Conservation and Attractions, Western Australia. <https://florabase.dpaw.wa.gov.au/> (Accessed August 2025)
- Williams, M.R., Yates, C.J., Saunders, D., Dawson, R., and Barrett, G.W. (2017) Combined demographic and resource models quantify the effects of potential land-use change on the endangered Carnaby's Cockatoo (*Calyptorhynchus latirostris*). Biological Conservation 2017, 210, pp. 8-15.