



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 10580/1
Permit Holder:	Public Transport Authority of Western Australia
Duration of Permit:	24 April 2025 to 24 April 2030

ADVICE NOTE

Monetary contribution to the Offsets Fund

The monetary contribution to the Offsets Fund referred to in condition 9 of this permit is intended to contribute towards the purchase and conservation in perpetuity of 5.77 hectares of native vegetation that comprises high-quality foraging habitat for Carnaby's cockatoo.

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 constructing a hardstand, storing stockpiled fill, and installation of fencing and gates.

2. Land on which clearing is to be done

Lot 104 on Plan 21521, Yanchep

3. Clearing authorised

The permit holder must not clear more than 1.05 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

PART II – MANAGEMENT CONDITIONS

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

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

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

5. Weed and dieback management

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

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the 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.

6. Demarcation of the clearing area

Prior to undertaking any clearing authorised under this permit, the permit holder must:

- (a) demarcate the clearing area to avoid inadvertent removal of adjacent vegetation;
- (b) within one (1) month of installing the above demarcation, the permit holder must notify the *CEO* in writing that the demarcation has been completed.

7. Erosion management

The permit holder must undertake the following measures to minimise the risk of erosion of stockpiled material impacting adjacent *native vegetation*:

- (a) engage a water truck to stabilise imported material during stockpiling operations;
- (b) within 14 days after the completion of material import and stockpiling within the area authorised to be cleared under this permit:
 - (i) construct and maintain a fence with a minimum height of 1.8 metres, within the area cross-hatched yellow in Figure 1 of Schedule 1, around all stockpiled material, until such time the material is no longer stockpiled in this location,
 - (ii) apply a soil stabiliser to stockpiled material, and re-apply as necessary while the material is being stockpiled should any signs of significant water or wind erosion be identified through visual inspection;
- (c) construct a stormwater bund around stockpiled material, within the area cross-hatched yellow in Figure 1 of Schedule 1, which must, with other management measures, ensure that stormwater does not discharge into adjacent *native vegetation*.

8. Fauna Management

- (a) The permit holder must:
 - (i) engage a *fauna specialist* 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 native vertebrate fauna; and
 - (ii) conduct clearing activities in a slow, progressive manner in one direction, towards adjacent *native vegetation*, to allow fauna to move into adjacent *native vegetation* ahead of the clearing activity.
- (b) Clearing activities must cease in any area where native fauna are identified under condition 8(a), until native fauna individual(s) have moved on from that area to

adjoining *native vegetation*, or are removed and relocated by a *fauna specialist* to adjoining *suitable habitat*.

- (c) Where *conservation significant fauna* individual(s) are identified under condition 8(a) of this permit, the permit holder must include the following in a report submitted to the *CEO* within three (3) months of undertaking any *clearing* authorised under this permit:
 - (i) the species and number of each *conservation significant fauna* individual(s) identified, and whether they required removal and relocation;
 - (ii) the date each individual was identified;
 - (iii) the location where each individual was identified and/or removed and 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;
 - (iv) the name and relevant qualifications of the *fauna specialist* engaged under conditions 8(a)(i) and 8(b) of this permit; and
 - (v) details pertaining to the circumstances of any death of, or injury sustained by, *conservation significant fauna* individual(s).

9. Offset – monetary contributions to the Offsets Fund

Prior to undertaking any clearing authorised under this permit, the permit holder must provide documentary evidence to the *CEO* that funding of \$129,190.30 has been transferred to the Department of Water and Environmental Regulation for the purpose of acquisition, establishing or maintaining native vegetation, as an environmental offset for the clearing activities authorised under this permit.

PART III - RECORD KEEPING AND REPORTING

10. 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"> (a) the species composition, structure, and density of the cleared area; (b) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings; (c) the date that the area was cleared; (d) the size of the area cleared (in hectares); (e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 4; (f) actions taken to minimise the risk of the

No.	Relevant matter	Specifications
		introduction and spread of <i>weeds</i> and <i>dieback</i> in accordance with condition 5; (g) actions taken in accordance with condition 6 of this permit; and (h) actions taken in accordance with condition 7 of this permit.
2.	In relation to fauna management pursuant to condition 8	(a) actions taken to avoid impacts to fauna in accordance with condition 8; and (b) a copy of the fauna spotter's report in accordance with condition 8(c).

11. Reporting

The permit holder must provide to the *CEO* the records required under condition 10 of this permit when requested by the *CEO*.

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 s.51H of the EP Act.
conservation significant fauna	means those fauna taxa listed as threatened or specially protected species under the <i>Biodiversity Conservation Act 2016</i> (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 Western Australia (as amended from time to time) and/or listed as threatened under the <i>Environment Protection and Biodiversity Conservation Act 1999</i>
dieback	means the effect of <i>Phytophthora</i> species on native vegetation.
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.
EP Act	<i>Environmental Protection Act 1986</i> (WA)
fauna specialist	means a person who holds a tertiary qualification in environmental science or equivalent and has a minimum 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 <i>CEO</i> as a suitable fauna specialist for the bioregion, and holds a 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.
suitable habitat	means habitat known to support the native fauna species within the known

Term	Definition
	current distribution of the species.
weeds	means any plant – (a) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i> ; or (b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or (c) not indigenous to the area concerned.

END OF CONDITIONS



Ryan Mincham
 MANAGER
 NATIVE VEGETATION REGULATION

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

1 April 2025

Schedule 1

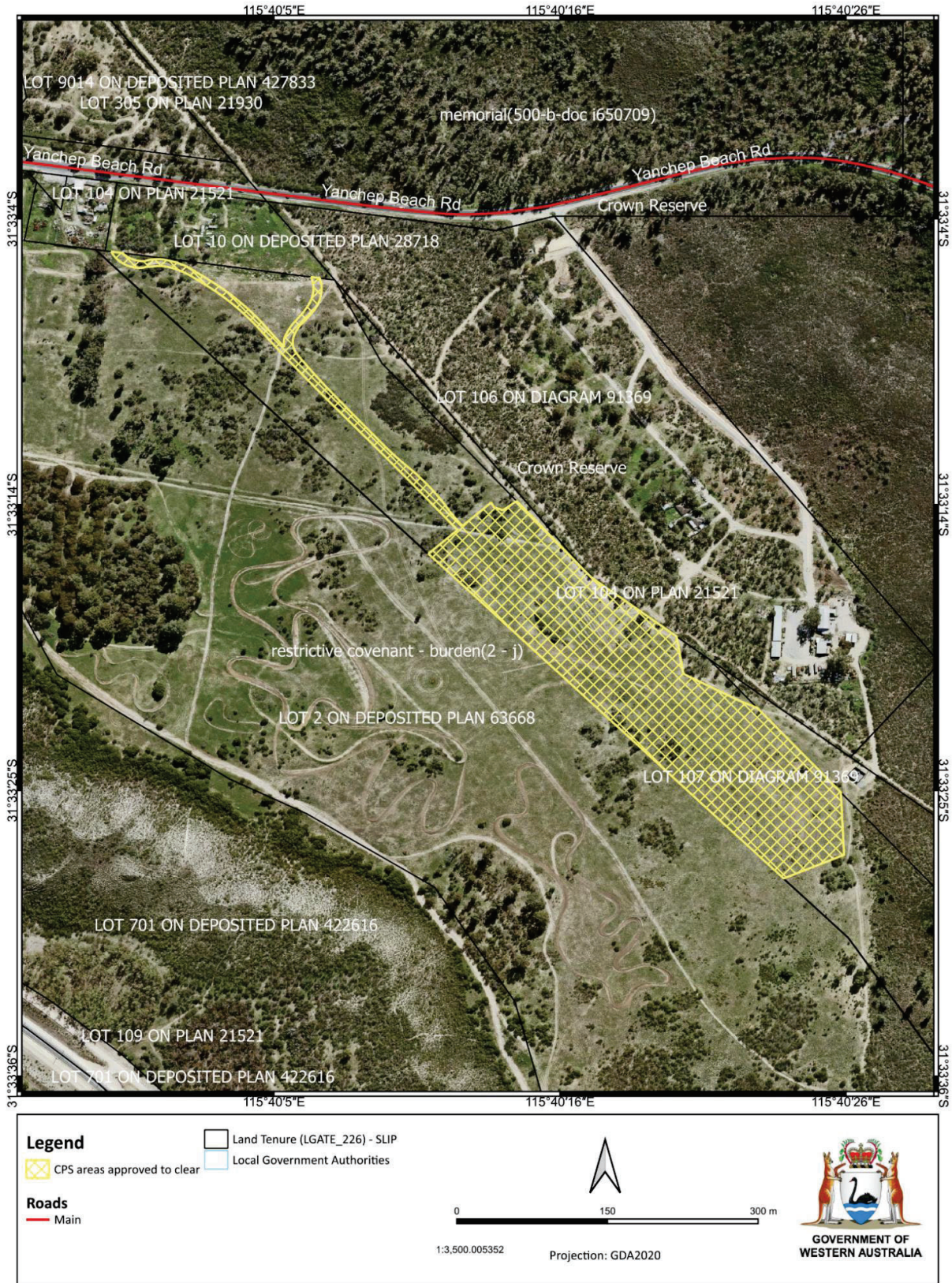


Figure 1: Map of the boundary of the area within which clearing may occur (cross-hatched yellow)



Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 10580/1
Permit type:	Purpose permit
Applicant name:	Public Transport Authority of Western Australia (PTA)
Application received:	9 April 2024
Application area:	1.05 hectares of native vegetation
Purpose of clearing:	Constructing a hardstand, storing stockpiled fill and installation of fencing and gates
Method of clearing:	Mechanical
Property:	Lot 104 on Plan 21521
Location (LGA area/s):	City of Wanneroo
Localities (suburb/s):	Yanchep

1.2. Description of application

The vegetation proposed to be cleared occurs as several small, degraded patches of remnant vegetation distributed across a cleared paddock area (see Figure 1, Section 1.5).

The application is to store 160,000 cubic metres of surplus excavated soil from the Yanchep Rail Extension (YRE) project. The YRE project forms part of the METRONET program of works (PTA, 2024). The excess fill is currently stored as three stockpiles on land privately owned under lease agreements, which expired at the end of 2024.

The PTA has advised the proposed works will involve minor cut and fill excavations and site preparations, such as levelling and surface water drainage, to create a hardstand to store the surplus excavated fill (PTA, 2024). The hardstand will be fenced and gated. The material will be stockpiled to an average height of four to eight metres.

1.3. Decision on application

Decision:	Granted
Decision date:	1 April 2025
Decision area:	1.05 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 no submissions were received.

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

- the site characteristics (see Appendix A);
- the clearing principles set out in Schedule 5 of the EP Act (see Appendix B);
- relevant datasets (see Appendix E);
- the findings of a flora and fauna survey (AECOM, 2024); and

- relevant planning instruments and any other matters considered relevant to the assessment (see section 3.3).

The Delegated Officer also took into consideration:

- the application is associated with a critical state infrastructure project (the YRE project which forms part of the METRONET program of works); and
- the urgency of the application, noting the fill is currently on privately owned land under lease agreements which have expired.

The assessment identified the proposed clearing will result in:

- the loss of native vegetation that is suitable habitat for Carnaby's cockatoo (*Zanda latirostris*);
- potential direct impacts to fauna individuals present in the application area at the time of clearing;
- potential indirect impacts to adjacent vegetation through erosion and sedimentation from stockpiling activities; and
- the potential introduction and spread of weeds and dieback into adjacent vegetation, which could impact on the quality of adjacent vegetation and its habitat values.

After consideration of the available information, as well as the applicant's avoidance and minimisation measures (see section 3.1), the Delegated Officer determined the potential direct impacts to fauna individuals and indirect impacts to adjacent vegetation can be appropriately managed to prevent an unacceptable risk to the environment through conditions on the clearing permit.

Given the above, the Delegated officer determined the proposed clearing will result in the following significant residual impact:

- the loss of 0.89 hectares of native vegetation that provides suitable foraging habitat for Carnaby's cockatoo (*Zanda latirostris*).

In accordance with the *WA Environmental Offsets Policy* (2011) and the *WA Environmental Offsets Guidelines* (2014) an offset is required to counterbalance the significant residual impacts of the proposed clearing (see section 4). The applicant proposed an environmental offset consisting of a monetary contribution to the Part V Offsets Fund to fund the purchase of 5.77 hectares of native vegetation that comprises high-quality foraging habitat for Carnaby's cockatoo, to be protected in perpetuity. The Delegated Officer considered the offset adequately counterbalances the above significant residual impact. The suitability of the offset is summarised in section 4.

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

- undertake avoid and minimise measures to reduce the impacts and extent of clearing;
- take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback;
- demarcate the clearing area to avoid inadvertent clearing of adjacent native vegetation;
- manage erosion by appropriately stabilising and maintaining the stockpiled material through water, fencing, applying soil stabilisers and installing bunding;
- undertake slow, progressive one-directional clearing towards adjacent native vegetation, to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity;
- engage a fauna specialist for the duration of clearing activities to identify presence of native fauna; and
- provide a monetary offset contribution to the Part V Offsets Fund to fund the purchase of 5.77 hectares of native vegetation that comprises high-quality foraging habitat for Carnaby's cockatoo.

1.5. Site map



Figure 1 Map of the application area

The area cross-hatched yellow indicates the area authorised to be cleared under the granted clearing permit.

2 Legislative context

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

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

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

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)

Relevant policies considered during the assessment include:

- *Environmental Offsets Policy* (2011)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)
- *Environmental Offsets Guidelines* (August 2014)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)
- Technical guidance – *Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment* (EPA, 2020).

3 Detailed assessment of application

3.1. Avoidance and minimisation measures

The applicant submitted supporting information (PTA, 2024), demonstrating actions taken to avoid and minimise the impacts of the proposed clearing, including:

- designing the clearing footprint to:
 - avoid better quality vegetation by locating the stockpile in cleared areas with lower flora diversity and fauna habitat value;
 - minimise impacts to adjacent vegetation through consideration of the slope of the land and drainage;
 - retain drainage onsite to avoid runoff into adjacent vegetation;
 - avoid clearing of areas identified by AECOM (2024) as the Banksia Woodlands on the Swan Coastal Plain threatened ecological community (Banksia Woodlands TEC);
 - avoid a large tuart (*Eucalyptus gomphocephala*) tree recorded near the application area
- further investigation of the proposed works, which identified additional spoil reuse opportunities resulting in a reduced volume of material requiring stockpiling;
- maximising the height of the stockpile (4-8 metres) to reduce the clearing footprint extent;
- limiting ground disturbance to a depth of not more than four metres;
- constructing temporary fencing with:
 - a 10-metre buffer around the potential hollow bearing tree recorded outside the application area;
 - a 3-metre buffer around the perimeter of the recorded Banksia Woodlands TEC areas outside the application area.
- fencing the site to prevent incidental impacts beyond the site boundary.

During the clearing permit assessment, the applicant further revised the application area and clearing footprint. The original application proposed to clear 2.4 hectares of native vegetation within an 8.4 hectare clearing footprint (see Figure 2, below). The applicant reduced this to the proposed clearing of 1.05 hectares of native vegetation within a 6.01 hectare clearing footprint (see Figure 1, Section 1.5).

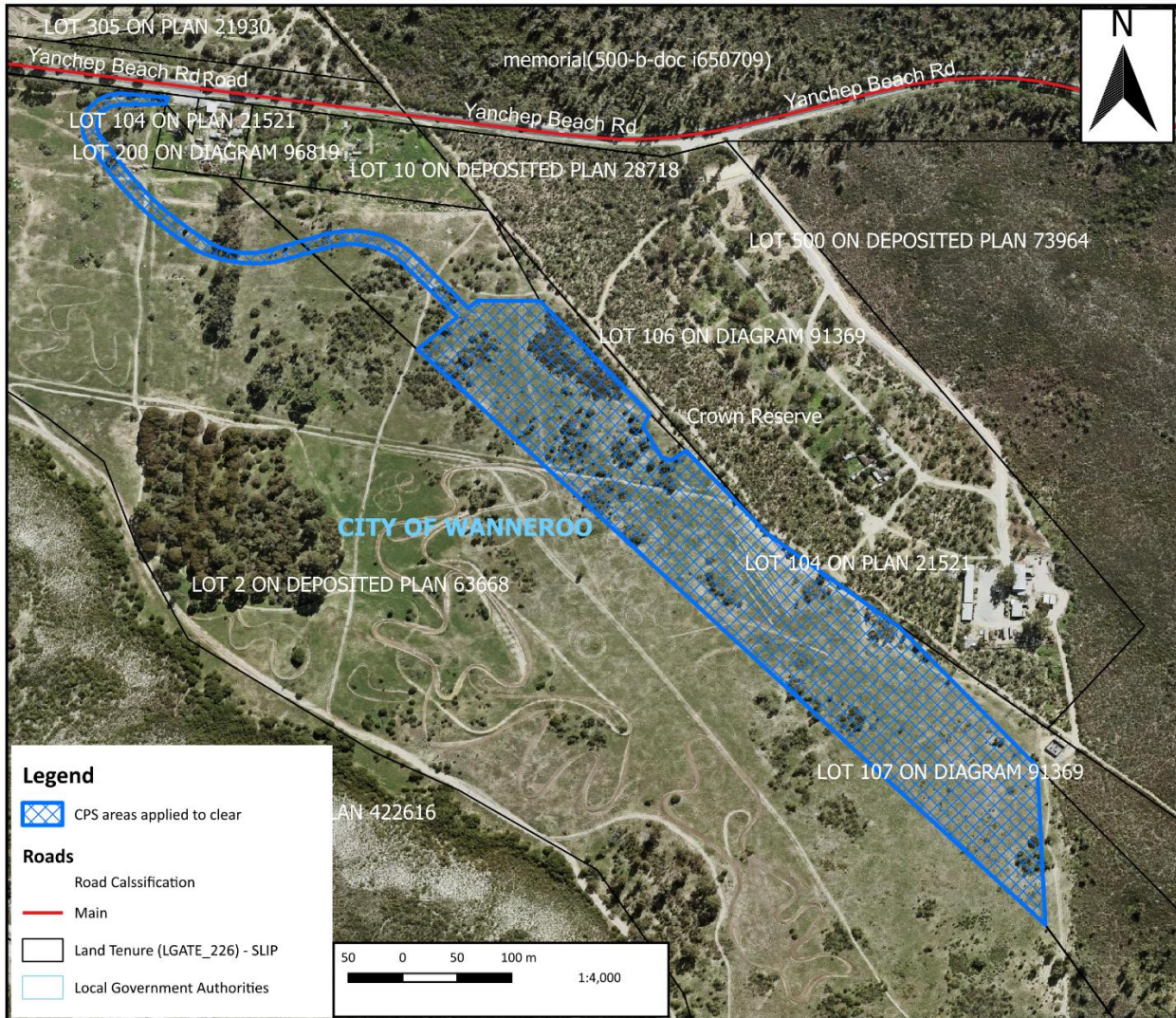


Figure 2. Original application area for CPS 10580/1. The applicant proposed to clear 2.4 hectares of native vegetation within an 8.4 hectare clearing footprint.

The revisions of the application area resulted in the avoidance of potential significant environmental impacts, including:

- avoiding the need to clear vegetation to access Lot 104 by modifying the entry route to use existing access tracks and already cleared areas;
- avoiding the potential Carnaby’s cockatoo breeding hollow identified by AECOM (2024) by 30 metres;
- avoiding a potential occurrence of Banksia Woodlands TEC on the northern border identified in the department’s site inspection (DWER, 2025) which provides preferred foraging habitat for Carnaby’s cockatoo and potential habitat for the Swan Coastal Plain shield-backed trapdoor spider.

The applicant selected the application area as the most suitable storage option based on the:

- closeness of the area to the YRE project where the existing stockpile is located;
- land tenure;
- ability of heavy haulage vehicles to directly access the site via Yanchep Beach Road; and
- zoning of the area under the Metropolitan Regional Scheme as ‘regional road’ for the proposed future Mitchell Freeway extension, and possibility of the stockpiled material to be used for these works (PTA, 2025).

The applicant investigated another potential site as an alternative to the proposed clearing. The alternative site was limited in size for the volume of surplus fill required to be stockpiled and would require clearing of native vegetation to create an access road. Given this, it was not considered a suitable alternative (PTA, 2025).

The Delegated Officer was satisfied that the applicant has undertaken reasonable measures to avoid and minimise potential impacts of the proposed clearing on environmental values.

After consideration of avoidance and mitigation measures, it was determined that an offset was necessary to counterbalance the significant residual impact to Carnaby's cockatoo foraging habitat. 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 an environmental offset requirement on the permit. The nature and suitability of the offset provided is summarised in section 4.

3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix A) 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 B) identified the impacts of the proposed clearing present a risk to biological values (fauna), threatened ecological communities and conservation areas. The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

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

Assessment

A fauna survey supplied by the applicant (AECOM, 2024) indicates the application area consists of two habitat types:

- Banksia and *Eucalyptus todtiana* woodland in Degraded (Keighery, 1994) condition; and
- Cleared paddock with sporadic native shrubs and trees in Completely Degraded (Keighery, 1994) condition.

The desktop assessment identified 40 conservation significant fauna species recorded in the local area. In forming a view on the likelihood of each species occurring in the application area, the following was considered:

- the preferred habitat and vegetation types of the species;
- their recorded proximity to the application; and
- date of record (see Appendix A.3).

The likelihood analysis identified five conservation significant fauna species which may occur in the application area (see Appendix A.3). Of these, four species were considered likely to occur: Carnaby's cockatoo (*Zanda latirostris*; EN), Swan Coastal Plain shield-backed trapdoor spider (*Idiosoma sigillatum*; P3), black-striped snake (*Neelaps calonotos*; P3) and quenda (*Isoodon fusciventer*; P4).

Carnaby's cockatoo (EN)

The application area is within the mapped distribution of Carnaby's cockatoo. According to available databases, the closest recorded confirmed breeding site is located approximately 22 kilometres from the application area. There are 13 known roost sites in the local area, the closest is approximately 400 metres from the application area.

The referral guideline for threatened black cockatoo species specifies that habitat critical for the recovery of Carnaby's cockatoo includes foraging habitat (including remnant patches of vegetation), night roosting habitat and nesting trees for breeding (DAWE, 2022). Suitable breeding habitat for Carnaby's cockatoo includes trees with a suitable nest hollow or of a suitable diameter at breast height (DBH) to develop a nest hollow (DAWE, 2022). Night roosting sites are often located near food and water resources.

No trees with hollows were identified in the application area (AECOM, 2024). Nine trees with a DBH over 300 millimetres were recorded in the application area (AECOM, 2024). Of these, four trees had a DBH over 500 millimetres. Given this, the application area may provide potential breeding habitat for Carnaby's cockatoo. A potentially suitable breeding hollow was identified near the application area (AECOM, 2024). The applicant revised the application area to exclude this tree by approximately 30 metres (see section 3.1).

The application area contains suitable foraging habitat for Carnaby's cockatoo. The fauna survey (AECOM, 2024) mapped 0.82 hectares of *E. todtiana* dominated Banksia woodland in the application area. A site inspection undertaken by the department (DWER, 2025) identified limited Banksia individuals in the mapped Banksia woodland areas, with a small portion comprising Acacia shrubland. Additionally, the site inspection identified 0.07 hectares of suitable Carnaby's foraging habitat across the paddock sections of the application area. This comprised isolated individuals and small patches of Banksia spp., Hakea spp., *E. todtiana*. and *Xanthorrhoea preissii*. Carnaby's cockatoos were observed foraging in the application area and surrounds during the fauna survey (AECOM, 2024). Given this, the application area is considered to provide 0.89 hectares of moderate-quality foraging habitat for Carnaby's cockatoo.

No evidence of roosting was identified during the fauna survey (AECOM, 2024). The application area is one kilometre from Yanchep Lake which may provide a water source for Carnaby's cockatoo. Consequently, the trees proposed to be cleared may provide roosting habitat for Carnaby's cockatoo.

Swan Coastal Plain shield-backed trapdoor spider (SCP trapdoor spider) and black-striped snake (P3)

The SCP trapdoor spider and the black-striped snake inhabit sandy soils of Banksia woodlands (Maryan et al, 2023; Rix et al., 2018). The Banksia and Eucalypt woodland habitat in the application area comprises small, isolated, *E. tottiana* dominated patches with minimal Banksia leaf litter, surrounded by cleared paddock (DWER, 2025). Given this, the application area is not considered to provide significant habitat for these species.

The department's site inspection identified a potential SCP trapdoor spider burrow in a Banksia-dominated patch of vegetation in the original application area (DWER, 2025). The applicant subsequently revised the application area to avoid the potential burrow by approximately 10 metres (see Section 3.1).

Quenda (P4)

Quenda diggings were observed in the application area during the fauna survey (AECOM, 2024). Suitable habitat for this species is present in the Banksia and Eucalypt woodland and paddock habitats in the application area. Quenda are likely to be transient visitors to the application area while moving through surrounding vegetation. Given the degraded nature of the vegetation and lack of dense understorey, the application area is unlikely to represent significant habitat for this species. A fauna specialist will be present during clearing to mitigate impacts to fauna individuals at the time of clearing.

Ecological linkage

The application area is comprised of small, isolated patches of vegetation and is surrounded by extensively vegetated conservation areas to the north, east and south. Given this, the proposed clearing and subsequent fenced stockpile is not considered to restrict fauna movement throughout the landscape.

Conclusion

Based on the above assessment, the impact of the proposed clearing on Carnaby's cockatoo foraging habitat constitutes a significant residual impact. Environmental offsets are required to counterbalance this impact (see section 4).

The management measures specified below will reduce impacts to fauna present in or near the application area during clearing activities. Given this, the proposed clearing is considered unlikely to significantly impact habitat for the Swan Coastal Plain shield-backed trapdoor spider, black-striped snake and quenda.

The applicant may have notification responsibilities under the EPBC Act for impacts to Carnaby's cockatoo and their habitats, as set out in the EPBC Act. The applicant has been advised to contact the federal Department of Climate Change, Energy, the Environment and Water (DCCEEW) to discuss EPBC Act referral requirements.

Conditions

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

- avoidance and minimisation to reduce the impacts and extent of clearing;
- demarcation of clearing area to avoid inadvertent clearing of adjacent native vegetation;
- engage a fauna specialist for the duration of clearing activities to identify native fauna;
- environmental offsets (as detailed in section 4 below).

3.2.2. Threatened ecological communities (TEC) and conservation areas - Clearing Principles (d) and (h)

Assessment

The application area is in the mapped buffer of an occurrence of the federally listed Banksia Woodlands TEC. The mapped TEC is in the adjacent DBCA-managed conservation reserve (Bush Forever Site 288).

The key diagnostic characteristics for the Banksia Woodlands TEC include a canopy dominated or co-dominated by one of the four diagnostic Banksia species (Department of the Environment and Energy, 2016). The buffer zone around a TEC patch acts as a barrier to protect the integrity of the patch. For the Banksia Woodlands TEC, a minimum buffer zone of 20 to 50 metres from the outer edge of the patch is recommended (Department of the Environment and Energy, 2016).

The flora and fauna survey (AECOM, 2024) identified approximately 0.82 hectares of Banksia and Eucalypt woodland in the application area. These areas are dominated by *Eucalyptus tottiana* with minimal Banksia individuals present (DWER, 2025; AECOM, 2024). They comprise small, isolated and degraded patches of remnant vegetation lacking

diverse understorey (DWER, 2025). Given this, these areas do not meet the Banksia Woodlands TEC diagnostic characteristics, and are not considered representative of the Banksia Woodlands TEC.

The department's site inspection identified an additional section of Banksia-dominated vegetation in the original application area (DWER, 2025). This area was considered likely to comprise part of the Banksia Woodland TEC patch present within the adjacent Bush Forever Site 288. The applicant subsequently removed this area from the application (see section 3.1).

Vegetation present along the northern border of the application area is within the recommended buffer zone for the adjacent Banksia Woodland TEC patch. The proposed clearing will reduce the vegetation in the buffer zone, which may exacerbate edge effects for the adjacent vegetation. Given the thin, linear nature of this vegetation, that it is separated from the TEC patch by a cleared track and is in a degraded condition, it is not considered necessary for the maintenance of the TEC patch. The proposed clearing is considered unlikely to significantly alter the functioning of the adjacent Banksia Woodlands TEC patch.

Adjacent vegetation - stockpile

The purpose of the application is to stockpile excess soil. There is potential for stockpiling activities to indirectly impact adjacent vegetation through erosion, sedimentation and introduction of weeds from stockpiled material. Given the applicant's avoidance and mitigation measures (see section 3.1), it is considered that potential impacts to adjacent vegetation can be managed through permit conditions, as outlined below.

Conclusion

Given the above, the proposed clearing is considered unlikely to significantly impact the functioning of the Banksia Woodlands TEC patch in the adjacent conservation area. Indirect impacts to adjacent vegetation are considered manageable, subject to the below conditions.

Conditions

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

- avoidance and minimisation to reduce the impacts and extent of clearing;
- take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback to adjacent vegetation;
- demarcation of clearing area to avoid inadvertent clearing of adjacent native vegetation;
- manage erosion by appropriately stabilising and maintaining the stockpiled material through water, fencing, applying soil stabilisers and installing bunding.

3.3. Relevant planning instruments and other matters

DWER's Water Source Protection Planning branch advised the final land use of the application area (hardstand for soil stockpiling works as part of the Yanchep Rail Extension) is compatible with Priority 3 Public Drinking Water Source areas (DWER, 2024).

The City of Wanneroo provided comments regarding the original application area, where site access was proposed through a property zoned as Urban Development under the City of Wanneroo District Planning Scheme No 2 (City of Wanneroo, 2024). The application area was subsequently revised to avoid this property (see section 3.1). The City advised the application area is zoned 'Primary Regional Roads' under the Metropolitan Regional Scheme and is proposed to be developed in the future to facilitate construction of a freeway.

It is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972* (WA) and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

4 Suitability of offsets

Significant residual impact

Through the detailed assessment outlined in Section 3.2 above, the Delegated Officer has determined that the following significant residual impact remains after the application of the avoidance and mitigation measures summarised in Section 3.1:

- the loss of 0.89 hectares of native vegetation that provides suitable foraging habitat for Carnaby's cockatoo (*Zanda latirostris*).

The applicant has proposed an environmental offset to address the above impact, as detailed below. The Delegated Officer determined on balance it is appropriate to consider an offset to counterbalance the significant residual impact in this instance, noting the extent of the impact, the necessity of the proposed clearing, and the applicant's demonstrated efforts to avoid, minimise and mitigate the environmental impacts of the proposed clearing, in accordance with the *WA Environmental Offsets Guidelines* (2014).

Proposed offset

The applicant proposed an environmental offset consisting of a monetary contribution to the Part V Offsets Fund to fund the purchase of 5.77 hectares of native vegetation that comprises high-quality foraging habitat for Carnaby's cockatoo, to be protected in perpetuity.

The site for acquisition is currently unknown. Given this, consideration of an appropriate monetary offset was based on the unimproved land values for the Local Government Area where high-quality Carnaby's cockatoo foraging habitat on the Swan Coastal Plain was available to be purchased. The Delegated Officer determined that a less than 20-hectare land value is appropriate, considering contributions to the Part V Fund are able to be pooled for more strategic land acquisitions. This is consistent with the *WA Environmental Offsets Policy* (2011).

Given the uncertainty surrounding the site for acquisition, the Delegated Officer considered the unimproved land value of \$22,390 in the Shire of Chittering was appropriate for use in determining a suitable monetary contribution. Therefore, a monetary contribution of \$129,190.30 is required to fund the acquisition of 5.77 hectares of native vegetation that comprises high-quality foraging habitat for Carnaby's cockatoo.

Offset adequacy

DWER requires an applicant to demonstrate they have followed a hierarchy of preferred offset outcomes when considering the suitability of a proposed offset. In determining the appropriateness of a monetary offset, the Delegated Officer considered the:

- applicant's investigation of preferred offset options following the hierarchy of offset preferences;
- urgency of the application - ongoing investigations of better preferred offset options would delay the applicant's ability to remove the stockpiled material from the current locations, where access is restricted due to the expired lease agreements;
- necessity of clearing - given the application is related to a critical state infrastructure project;
- adequacy of the proposed offset in proportion to the significance of the environmental value being impacted; and
- prospect of acquiring land containing high-quality foraging habitat for Carnaby's cockatoo through the Part V Offsets Fund.

Given the above, the Delegated Officer considered that a monetary contribution to the Part V Offsets Fund is an acceptable offset in this instance.

The Delegated Officer considers the proposed offset is consistent with the *WA Environmental Offsets Policy* (2011) and the *WA Environmental Offsets Guidelines* (2014) and adequately counterbalances the significant residual impact listed above. The justification for the values used in the offset calculation is provided in Appendix D.

End

Appendix A. Site characteristics

A.1. Site characteristics

Characteristic	Details
Local context	<p>The application area is within a parkland cleared property in the intensive land use zone of Western Australia. It is surrounded by land reserved for conservation purposes and areas cleared for urban use. The application area lies immediately east of the Yanchep townsite in the City of Wanneroo.</p> <p>Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 50.68 per cent of the original native vegetation cover.</p>
Ecological linkage	The application area borders the mapped Gnangara Ecological Linkages (Bush Forever associated with Conceptual Linkage) and is approximately 170 metres from the Perth Regional Ecological Linkages.
Conservation areas	The application area borders Bush Forever Site 288 (a DBCA managed conservation reserve connected to Yanchep National Park) and is approximately 240 metres from Bush Forever Site 289.
Vegetation description	<p>The vegetation survey (AECOM, 2024) indicates the application area consists of two vegetation types:</p> <ul style="list-style-type: none"> • Banksia and Eucalypt woodland, and • Paddock with isolated trees over non-native grassland. <p>This is broadly consistent with the mapped vegetation type:</p> <ul style="list-style-type: none"> • Cottesloe Complex North (51), which is described as predominantly low open forest and low woodland of <i>Banksia attenuata</i> (Slender Banksia), <i>Banksia menziesii</i> (Firewood Banksia), <i>Eucalyptus todtiana</i> (Prickly bark), closed heath on the Limestone outcrops (Shepherd et al, 2001). <p>The mapped vegetation type retains approximately 57.89 per cent of the original extent (Government of Western Australia, 2019).</p>
Vegetation condition	The vegetation survey (AECOM, 2024) indicates the vegetation within the application area is in Degraded to Completely Degraded (Keighery, 1994) condition. The full Keighery (1994) condition rating scale is provided in Appendix C.
Climate and landform	The average annual rainfall received over the application area from 1991 to 2020 is 600 to 1,000 millimetres (Commonwealth of Australia, 2024). The application area is at an altitude of 25 to 30 metres above sea level.
Soil description	The soil is mapped as Karrakatta Sand Yellow Phase (211sp_Ky), described as low hilly to gently undulating terrain. Yellow sand over limestone at 1-2 m. <i>Banksia</i> spp. woodland with scattered emergent <i>Eucalyptus gomphocephala</i> and <i>Eucalyptus marginata</i> and a dense shrub layer (DPIRD, 2019).
Land degradation risk	Available mapping indicates the application area is at high risk of subsurface acidification and wind erosion risk.
Waterbodies	The desktop assessment and aerial imagery indicate the application area does not intersect a waterbody. The nearest mapped waterbody is the Loch McNess System, one kilometre from the application area.
Hydrogeography	The application area falls within the Yanchep Groundwater Area as proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (RiWI Act) and is within the Perth Coastal and Gwelup Underground Water Pollution Control Area. The groundwater salinity level (total dissolved solids) is mapped as 500 – 1,000 milligrams per litre.
Flora	The desktop assessment identified 25 conservation significant flora species within the local area, comprised of one threatened flora and 24 priority flora species. There are no conservation significant flora records in the application area. The nearest record is a Priority 2 species, <i>Acacia benthamii</i> , approximately one kilometre from the application area.

Characteristic	Details
Ecological communities	The application area borders a mapped occurrence of the Banksia Woodlands of the Swan Coastal Plain TEC and is approximately 200 metres from a mapped occurrence of the Tuart (<i>Eucalyptus gomphocephala</i>) woodlands and forests of the Swan Coastal Plain TEC.
Fauna	<p>The desktop assessment identified 40 conservation significant fauna species in the local area. The closest record is <i>Zanda latirostris</i> (Carnaby's cockatoo) recorded 150 metres from the application area.</p> <p>The application area is within Carnaby's cockatoo known distribution. There are 13 known black cockatoo roost sites within the local area, the closest is 400 metres from the application area.</p>

A.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	38.45	14.85
Vegetation complex**					
Cottesloe Complex North (51)	43,474.31	25,165.42	57.89	16,435.89	37.81
Local area					
10km radius	24,961.44	12,650.18	50.68	-	-

*Government of Western Australia (2019b)

**Government of Western Australia (2019a)

A.3. Fauna analysis table

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)
<i>Zanda latirostris</i> (Carnaby's cockatoo)	EN	Y	Y	0.15
<i>Idiosoma sigillatum</i> (Swan Coastal Plain shield-backed trapdoor spider)	P3	Y	Y	1.18
<i>Neelaps calonotos</i> (black-striped snake)	P3	Y	Y	1.18
<i>Isoodon fusciventer</i> (quenda)	P4	Y	Y	1.57
<i>Notamacropus irma</i> (western brush wallaby)	P4	Y	Y	5.89

EN: endangered, P: priority

Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<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></p> <p>Given the application area comprises small, degraded patches of remnant vegetation which lack a diverse understorey and are surrounded by historically cleared paddock, the application area is unlikely to comprise a high level of biodiversity. Any potential impacts can be managed via permit conditions.</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.1, above.</i>
<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></p> <p>The application area contains suitable habitat for conservation significant fauna species.</p>	At variance	Yes <i>Refer to Section 3.2.1, above.</i>
<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></p> <p>Given the application area comprises small, degraded patches of remnant vegetation which lack a diverse understorey and are surrounded by historically cleared paddock, it is unlikely to contain habitat for threatened flora species. No threatened flora species were identified in the application area during the fauna and flora survey (AECOM, 2024).</p>	Not likely to be at variance	No
<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></p> <p>The application area is in the mapped buffer of an occurrence of the federally listed Banksia Woodlands TEC. Given the applicant’s avoidance and mitigation measures, and that the vegetation in the buffer zone is thin, linear and separated from the TEC patch by a cleared track, the application area is not considered necessary for the maintenance of the nearby TEC patch. Any potential impacts can be managed via permit conditions.</p>	May be at variance	Yes <i>Refer to Section 3.2.2, above.</i>
Environmental value: significant remnant vegetation and conservation areas		
<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></p> <p>The extent of the mapped vegetation type and the native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia. The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area.</p>	Not likely to be at variance	No
<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></p>	May be at variance	Yes <i>Refer to Section 3.2.2, above.</i>

Assessment against the clearing principles	Variance level	Is further consideration required?
The application area borders Bush Forever Site 288, a DBCA managed conservation reserve. Any potential impacts can be managed via permit conditions.		
Environmental value: land and water resources		
<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> <p><u>Assessment:</u></p> <p>Given no watercourses or wetlands are recorded within the application area, the proposed clearing is unlikely to impact on- or off-site hydrology and water quality.</p>	Not at variance	No
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u></p> <p>The mapped soils are highly susceptible to wind erosion and subsurface acidification. Noting the applicant’s avoidance and mitigation measures, the extent of the application area and the condition of the vegetation, the proposed clearing is not likely to have an appreciable impact on land degradation.</p>	Not likely to be at variance	No
<p><u>Principle (i):</u> <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></p> <p><u>Assessment</u></p> <p>The application area is within the Perth Coastal and Gwelup Underground Water Pollution Control Area and the Yanchep Groundwater Area. DWER’s Water Source Protection Planning branch advised the final land use (hardstand for soil stockpiling works) is compatible with the Priority 3 PDWSA.</p> <p>Given no waterbodies are recorded within the application area, the proposed clearing is unlikely to impact surface or ground water quality.</p>	Not likely to be at variance	Yes <i>Refer to Section 3.3, above.</i>
<p><u>Principle (j):</u> <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></p> <p><u>Assessment:</u></p> <p>The mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding or water logging.</p>	Not likely to be at variance	No

Appendix C. Vegetation condition rating scale

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

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

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

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

Calculation	Score (Area)	Rationale
Conservation significance		
Description	Carnaby's cockatoo foraging habitat	The application area provides Carnaby's cockatoo foraging habitat within the Swan Coastal Plain (SCP)
Type of environmental value	Species (flora/fauna)	Foraging habitat for Carnaby's cockatoo
Conservation significance of environmental value	Rare/threatened species – endangered	Carnaby's cockatoo is listed as endangered under the BC Act (state) and EPBC Act (federal)
Landscape level value impacted	Yes/No	Yes - SCP
Significant impact		
Description	Clearing of suitable foraging habitat for Carnaby's cockatoo	Proposed clearing of native vegetation considered significant foraging habitat for Carnaby's cockatoo within the SCP
Significant impact (hectares)	0.89	Up to 0.89 ha of suitable foraging habitat for Carnaby's cockatoo
Quality (scale)	5	The application area provides 0.89 ha of suitable foraging habitat for Carnaby's cockatoo. AECOM (2024) recorded 0.82 ha of suitable Carnaby's cockatoo foraging habitat in the application area, comprising degraded patches of <i>Eucalyptus tottiana</i> dominated Banksia woodland. A site inspection undertaken by the department identified an additional 0.07 ha of suitable Carnaby's foraging habitat outside the mapped Banksia woodland areas. Additionally, the site inspection identified limited Banksia individuals within the mapped Banksia woodland areas, with a small portion comprising Acacia shrubland. The

Calculation	Score (Area)	Rationale
		closest confirmed Carnaby's breeding site is 22 kilometres from the application area. Noting the local area is highly fragmented, there are multiple roosts within 6km and evidence of Carnaby's foraging was identified on site, a moderate foraging quality value has been attributed.
Rehabilitation credit		
N/A	N/A	Onsite revegetation will not be taking place.
Offset		
Description	Monetary offset contribution for land acquisition and conservation	Land acquisition via a monetary offset contribution to the Part V Offset Fund
Proposed offset (area in hectares)	5.77	The area required to be protected to counterbalance 100% of significant residual impact (SRI) to foraging habitat for Carnaby's cockatoo
Current quality of offset site	8	While the site has not yet been identified, it is envisaged that the offset site will provide high quality foraging habitat for Carnaby's cockatoo on the northern SCP
Future quality WITHOUT offset	8	While the site has not yet been identified, it is envisaged that the offset site is unlikely to improve or decline from its current quality over the next 20 years
Future quality WITH offset	8	No on-ground management of the site is proposed as part of the offset, and therefore the sites quality is unlikely to improve beyond its current quality over the next 20 years
Time until ecological benefit (years)	1	It is expected that the transfer will be complete within 12 months
Confidence in offset result (%)	90	There is a high level of confidence the land will be purchased and the habitat quality will not deteriorate with the implementation of the offset
Duration of offset implementation (maximum 20 years)	20	Maximum value applied to be used noting the offset site will be conserved in perpetuity
Time until offset site secured (years)	3	It is expected that the administrative process of executing the purchase can be achieved within three years
Risk of future loss WITHOUT offset (%)	15%	It is expected that the department will be purchasing property that is zoned as 'rural' and that there will be a moderate risk of loss
Risk of future loss WITH offset (%)	5%	The site will be managed in perpetuity for conservation purposes and there is therefore a low risk of loss

Appendix E. Sources of information

E.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)

- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems
- Wheatbelt Wetlands Stage 1 (DBCA-021)

Restricted GIS Databases used:

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

E.2. References

AECOM Australia Pty Ltd (AECOM) (2024) *Flora and fauna survey: Lot 4500 Mithcell Freeway, Yanchep*, prepared for Public Transport Authority of Western Australia (DWER Ref: DWERDT940928). Available from: <https://ftp.dwer.wa.gov.au/permit/10580/>.

City of Wanneroo (2024) *Advice for clearing permit application CPS 10580/1*, received 27 May 2024 (DWER Ref: DWERDT953820).

Commonwealth of Australia (2024) *Average annual, seasonal and monthly rainfall maps*. Commonwealth of Australia, Australian Bureau of Meteorology. Available from www.bom.gov.au/climate/maps/averages/rainfall/.

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

Department of Agriculture, Water and the Environment (DAWE) (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.

Department of the Environment and Energy (2016). *Approved Conservation Advice (incorporating listing advice) for the Banksia Woodlands of the Swan Coastal Plain ecological community*. Canberra: Department of the

Environment and Energy. Available from:

<http://www.environment.gov.au/biodiversity/threatened/communities/pubs/131-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.

Department of Primary Industries and Regional Development (DPIRD) (2019). *NRInfo Digital Mapping. Department of Primary Industries and Regional Development*. Government of Western Australia. URL: <https://maps.agric.wa.gov.au/nrm-info/>.

Department of Water and Environmental Regulation (DWER) (2025) *Site Inspection Report for Clearing Permit Application CPS 10580/1*, 21 March 2025. Department of Water and Environmental Regulation, Western Australia (DWER Ref: DWERDT1097305).

Department of Water and Environmental Regulation (DWER) (2024). *Public Drinking Water Source Area advice for clearing permit application CPS 10580/1*, received 6 May 2024 (DWER Ref DWERDT962582).

Department of Water and Environmental Regulation (DWER) (2019). *Procedure: Native vegetation clearing permits*. Joondalup. Available from: https://dwer.wa.gov.au/sites/default/files/Procedure_Native_vegetation_clearing_permits_v1.PDF.

Environmental Protection Authority (EPA) (2020). *Technical Guidance – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment*. Available from: <https://www.epa.wa.gov.au/policies-guidance/technical-guidance-terrestrial-vertebrate-fauna-surveys-environmental-impact>.

Environmental Protection Authority (EPA) (2016). *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment*. Available from: <https://www.epa.wa.gov.au/policies-guidance/technical-guidance-flora-and-vegetation-surveys-environmental-impact-assessment>.

Government of Western Australia (2019a) *2018 South West Vegetation Complex Statistics. Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions, Perth, <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. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>

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.

Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Maryan, B., Keogh, J.S. and Bolton, P.E. (2023) *Phylogeny and morphology of the Australian snake genus Neelaps Günther, 1863 (Squamata: Elapidae), with resurrection of Narophis Worrell, 1961*, Australian Journal of Taxonomy 34: 1-25. doi: <https://doi.org/10.54102/ajt.29hub>.

Public Transport Authority of Western Australia (PTA) (2025) *Supporting information for clearing permit application CPS 10580/1*, received 18 February 2025 (DWER Ref: DWERDT1087171).

Public Transport Authority of Western Australia (PTA) (2024) *Clearing permit application CPS 10580/1*, received 9 April 2024 (DWER Ref: DWERDT931711).

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: 1-121. doi: <https://doi.org/10.3897/zookeys.756.24397>.

Western Australian Herbarium (1998-). *FloraBase - the Western Australian Flora*. Department of Biodiversity, Conservation and Attractions, Western Australia. <https://florabase.dpaw.wa.gov.au/>.