



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 9487/2
Permit Holder:	NEWest Alliance
Duration of Permit:	From 18 August 2022 to 18 August 2027

ADVICE NOTE

The funds referred to in condition 7 of this permit are intended to contribute towards the purchase and conservation in perpetuity of 1.15 hectares of native vegetation in Very Good (Keighery, 1994) condition or better, that comprises significant foraging habitat for *Zanda latirostris* (previously *Calyptorhynchus latirostris*) (Carnaby's cockatoo) on the Swan Coastal Plain.

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 establishing an access track.

2. Land on which clearing is to be done

Lot 17 on Plan 17935, Eglinton
Lot 9006 on Deposited Plan 421398, Eglinton
Beonaddy Road reserve (PIN 11749607), Eglinton

3. Clearing authorised

The permit holder must not clear more than 0.52 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. Directional clearing

The permit holder must conduct clearing activities in a slow, progressive manner in one direction to allow fauna to move into adjacent *native vegetation* ahead of the clearing activity.

7. Offsets – 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 \$4,416 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.

PART III - RECORD KEEPING AND REPORTING

8. 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 Geocentric Datum Australia 1994 (GDA94), 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);

No.	Relevant matter	Specifications
		(e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 4; and (f) actions taken to minimise the risk of the introduction and spread of <i>weeds</i> and <i>dieback</i> in accordance with condition 5; and (g) actions taken to undertake directional clearing in accordance with condition 6.

9. Reporting

The permit holder must provide to the *CEO* the records required under condition 8 of this permit when requested by the *CEO*.

DEFINITIONS

In this permit, the terms in Table 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.
fill	means material used to increase the ground level, or to fill a depression.
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)
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.
weeds	means any plant – <ul style="list-style-type: none"> (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

A handwritten signature in black ink, appearing to be 'Mathew Gannaway', written in a cursive style.

Mathew Gannaway
MANAGER
NATIVE VEGETATION REGULATION

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

9 November 2022

Schedule 1

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

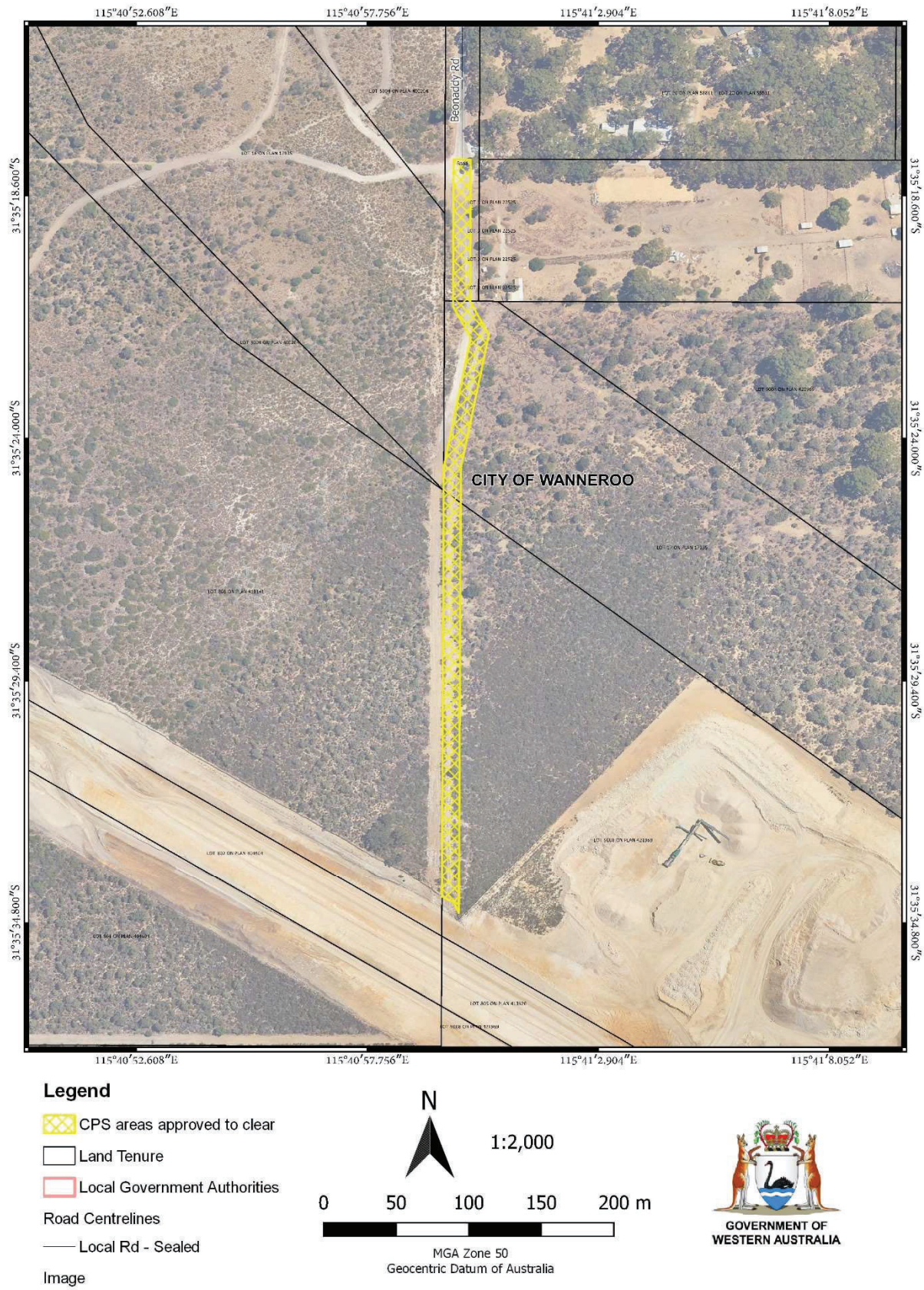


Figure 1: Map of the boundary of the area within which clearing may occur



Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 9487/2
Permit type:	Purpose permit
Applicant name:	NEWest Alliance
Application received:	24 August 2022
Application area:	0.52 hectares of native vegetation
Purpose of clearing:	Establishing an access track
Method of clearing:	Mechanical
Property:	Lot 17 on Plan 17935 Lot 9006 on Deposited Plan 421398 Beonaddy Road reserve (PIN 11749607)
Location (LGA area/s):	City of Wanneroo
Localities (suburb/s):	Eglinton

1.2. Description of clearing activities

This administrative amendment to CPS 9487/1 is to correct an administrative error in the Permit Holder details. The vegetation proposed to be cleared under CPS 9487/2 is unchanged from the previous version of the permit and is contained within a single contiguous area to the north of the existing development envelope for the Yanchep Rail Extension (YRE) Project (see Figure 1, Section 1.5).

CPS 9487/1 allowed for the clearing of no more than 0.52 hectares of native vegetation within Lot 17 on Plan 17935, Lot 9006 on Deposited Plan 421398, and Beonaddy Road reserve (PIN 11749607), Eglinton, for the purpose of establishing an access track for the entry in and out of the Urban Quarter stockpile.

1.3. Decision on application

Decision:	Granted
Decision date:	9 November 2022
Decision area:	0.52 hectares of native vegetation, as depicted in Section 1.5, below.

1.4. Reasons for decision

This administrative amendment was accepted, assessed, and determined in accordance with sections 51K and 51M of the *Environmental Protection Act 1986* (EP Act). The amendment relates only to updating the Permit Holder details to reflect the registered business name of the Permit Holder.

In considering the above, the Delegated Officer considered that the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values remains unchanged from the previous assessments of the permit and can be found in the Decision Report prepared for Clearing Permit CPS 9487/1.

The Delegated Officer considered that, given the administrative nature of the proposed amendment, the existing conditions under Clearing Permit CPS 9487/1 are sufficient to limit the impacts of the proposed clearing:

- 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,
- undertake slow, progressive one directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity, and
- provide a monetary offset contribution, which will be used to fund the acquisition and conservation in perpetuity of 1.15 hectares of native vegetation in a Very Good (Keighery, 1994) condition that provides suitable foraging habitat for Carnaby's cockatoo.

1.5. Site map

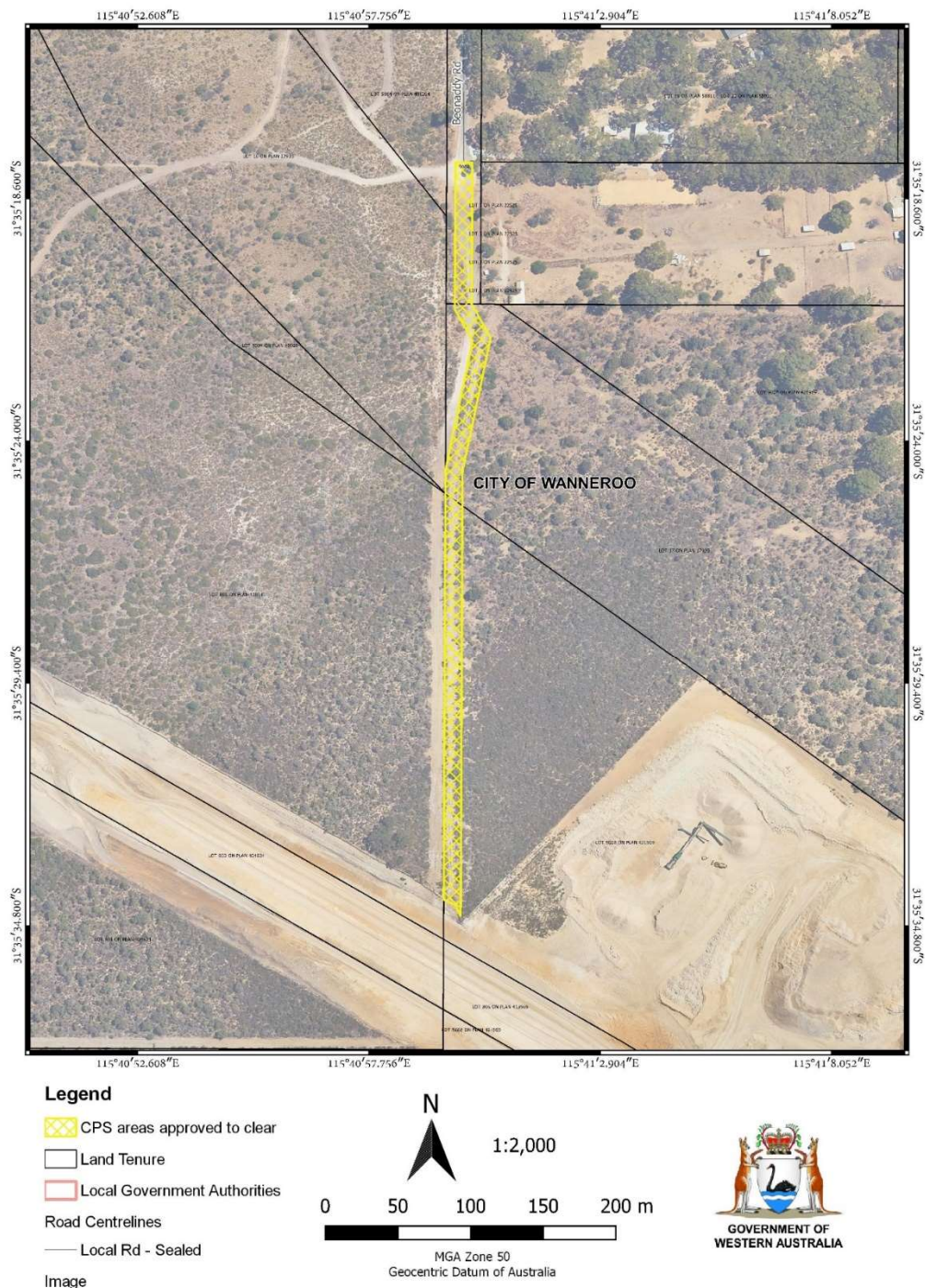


Figure 1 The area crosshatched yellow indicates the area authorised to be cleared under the granted clearing permit.

2 Legislative context

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

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

- the precautionary principle,
- the principle of intergenerational equity,
- the polluter pays principle, and
- 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)

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)

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

As this amendment is administrative in nature and relates only to updating the Permit Holder details, the avoidance and mitigation measures implemented by the Permit Holder are unchanged and can be found in the Decision Report prepared for Clearing Permit CPS 9487/1. 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.

After consideration of the avoidance and mitigation measures, it was determined that an offset to counterbalance the significant residual impacts to significant foraging habitat for *Zanda latirostris* (previously *Calyptorhynchus latirostris*) (Carnaby's cockatoo) was necessary. In accordance with the Government of Western Australia's *Environmental Offsets Policy* and *Environmental Offsets Guidelines*, this significant residual impact has been addressed through the conditioning of environmental offset requirements on the permit. The nature and suitability of the offset provided are summarised in the Decision Report prepared for Clearing Permit CPS 9487/1.

3.2. Assessment of impacts on environmental values

This amendment is the result of an administrative error on Clearing Permit CPS 9487/1, where the Permit Holder details did not reflect the registered business name of the Permit Holder. Given the nature of the proposed amendment, the Delegated Officer determined that the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values remains unchanged from the previous assessment of the permit and can be found in the Decision Report prepared for Clearing Permit CPS 9487/1.

3.3. Relevant planning instruments and other matters

Given the administrative nature of the amendment, the assessment against planning instruments and other matters is also unchanged and can be found in the Decision Report prepared for Clearing Permit CPS 9487/1.

End

Appendix A. Site characteristics

The information provided below describes the key characteristics of the area proposed to be cleared and is based on the best information available to DWER at the time of this assessment. Given the administrative nature of the amendment, the site characteristics remain unchanged from the previous assessment of Clearing Permit CPS 9487/1. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix B.

A.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared comprises two areas of native vegetation: an approximately 0.4-hectare isolated strip of remnant native vegetation and an approximately 0.12-hectare section of a 35-hectare patch of remnant vegetation, in the intensive land use zone of Western Australia. It encompasses an existing access track/fire break in the centre of the two areas of native vegetation and is adjacent to the existing Yanchep Rail Extension (YRE) Project development envelope to the south, Beonaddy Road to the north, and is surrounded by remnant native vegetation to the east and west. Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 63 per cent of the original native vegetation cover (see Appendix A.2).
Ecological linkage	The application area does not intersect any formally mapped ecological linkages. Several conceptual linkages associated with the Gnangara Mound Ecological Linkages (Brown et al., 2009) and Perth Regional Ecological Linkages (Del Marco et al., 2004) occur within one kilometre, but are separated from the application area by existing cleared land and access tracks. Given the application area consists of a linear strip of native vegetation encompassing an existing access track/fire break and adjacent to an expansive tract of remnant native vegetation, it is not considered to be contributing significantly to the values of the nearby mapped linkages or to any formal or informal ecological linkages in the local area.
Conservation areas	The closest conservation area is Yanchep National Park, located approximately 1.3 kilometres east of the application area, and separated from the application area by historically cleared land and access tracks.
Vegetation description	<p>A flora and vegetation survey undertaken by Natural Area Consulting Management Services (Natural Area) in October 2021 indicates that the vegetation within the proposed clearing area consists of three broad vegetation types:</p> <ul style="list-style-type: none"> • <i>Acacia saligna</i> open shrubland, described as open shrubland of <i>Acacia saligna</i> over an understorey of introduced grasses and herbs particularly <i>Pelargonium capitatum</i>, • Open <i>Banksia</i> spp. woodland, described as, and an open woodland of <i>Banksia attenuata</i> and <i>Banksia menziesii</i> trees over a middle storey of <i>Banksia sessilis</i> and <i>Hakea trifurcata</i> shrubs and an understorey of mixed introduced grasses and herbs, and • <i>Banksia sessilis</i> shrubland, described as shrubland of <i>Banksia sessilis</i> over an understorey of mixed introduced grasses and herbs (Natural Area, 2022). <p>Representative photos and the full survey descriptions and maps are available in Appendix E.</p> <p>This is inconsistent with the mapped Swan Coastal Plain vegetation type Cottesloe Complex – Central and South, which is described as a mosaic of woodland of <i>Eucalyptus gomphocephala</i> (tuart) and open forest of tuart - <i>Eucalyptus marginata</i> (jarrah) - <i>Corymbia calophylla</i> (marri), with closed heath on the limestone outcrops (Hedde et al., 1980).</p>

Characteristic	Details
Vegetation condition	<p>The flora and vegetation survey undertaken by Natural Area in October 2021 indicates that the vegetation within the proposed clearing area is in Very Good to Completely Degraded (Keighery, 1994)</p> <p>The full Keighery (1994) condition rating scale is provided in Appendix C. The full survey mapping is available in Appendix E.</p>
Climate and landform	<p>The application area occurs on slightly undulating topography, sloping down from 12 metres Australian Height Datum (m AHD) at the northern end of the site to 44 m AHD in the south (Natural Area, 2022).</p> <p>The application area occurs in a Mediterranean climate and has a mean annual maximum temperature of 25.6°C and a mean annual minimum temperature of 11.0°C. The mean annual rainfall rate of 800 millimetres and the annual evapotranspiration rate is 700 millimetres.</p>
Soil description and land degradation risk	<p>The soil within the application area is mapped as the following systems:</p> <ul style="list-style-type: none"> • Quindalup South oldest dune Phase (211Qu_Q1), described as the oldest phase, with dunes or remnants with low relief, where calcareous sands have organic staining to about 30 centimetres, overlying pale brown sand with definite cementation below 1 metre, • Karrakatta shallow soils Phase (211Sp_KIs), described as low hills and ridges with bare limestone or shallow siliceous or calcareous sand over limestone and including dense low shrub dominated by <i>Banksia sessilis</i>, <i>Melaleuca huegelii</i> and species of <i>Grevillea</i>, • Spearwood Sand Phase (211Sp_Sp), described as irregular banks of karst depressions, with some limestone outcrop. Primarily shallow brown sands with <i>Banksia</i> spp. woodland with emergent <i>Eucalyptus gomphocephala</i> and <i>Eucalyptus marginata</i> and dense shrub layer, and • Karrakatta Sand Yellow Phase (211Sp_Ky), described as low hilly to gently undulating terrain with yellow sand over limestone at 1-2 metres and including <i>Banksia</i> spp. woodland with scattered emergent <i>Eucalyptus gomphocephala</i> and <i>Eucalyptus marginata</i> and a dense shrub layer (DPIRD, 2022). <p>The soil types within the application area are mapped as having a low risk of land degradation resulting from water erosion, salinity, waterlogging, flooding, subsurface acidification, and phosphorus export, but as having a moderate to high risk of wind erosion (DPIRD, 2022).</p>
Waterbodies and hydrogeography	<p>The desktop assessment and aerial imagery indicated that the application area does not intersect any mapped wetlands or natural source of surface water. The closest natural watercourse is a non-perennial tributary of the Swan River System, located approximately five kilometres north of the application area and separated by historically cleared land and access tracks. The closest wetland to the application area is the Beonaddy Swamp, located approximately 350 metres east of the application area, separated by historically cleared residential land and access tracks.</p> <p>The application area is mapped within the Perth Groundwater Area, proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (the RIWI Act), and the Perth Coastal and Gwelup Underground Water Pollution Control Area, a Priority 3 Public Drinking Water Source Area (PDWSA) proclaimed under the <i>Metropolitan Water Supply Sewerage and Drainage Act 1909</i>. The application area does not transect any proclaimed surface water areas.</p> <p>Groundwater salinity within the application area is mapped at 500 to 1000 milligrams per litre total dissolved solids.</p>

Characteristic	Details
Flora	<p>The desktop assessment identified that a total of 24 conservation significant flora species have been recorded within the local area, comprising two Priority 1 (P1) flora, six Priority 2 (P2) flora, nine Priority 3 (P3) flora, four Priority 4 (P4) flora, and three threatened flora (Western Australian Herbarium, 1998-). None of these existing records occur within the application area, with the closest record being an occurrence of <i>Stylidium maritimum</i> (P3) approximately 1.5 kilometres from the application area.</p> <p>No threatened or priority flora species were identified within the application area during the flora and vegetation survey (Natural Area, 2022). The survey report noted that the application area was unlikely to provide suitable habitat for any threatened or priority flora species, given the condition of the vegetation and the ongoing disturbance from use of the existing access tracks (Natural Area, 2022). The flora and vegetation survey was undertaken during the 2021 spring season and the majority of the conservation significant flora species recorded in the local area are either perennial species or are annual species that would have been flowering at the time of the survey (WA Herbarium, 1998-).</p> <p>With consideration for the site characteristics set out above, relevant datasets (see Appendix F.1), the habitat preferences and conservation statuses of the aforementioned species, the distribution and extent of existing records, and biological survey information as summarised above (Natural Area, 2022), the application area is unlikely to provide suitable or significant habitat for threatened or priority flora species and impacts to flora species did not require further consideration.</p>
Ecological communities	<p>The desktop assessment identified that the closest mapped state-listed TEC is an occurrence of the <i>Melaleuca huegelii</i> - <i>Melaleuca systema</i> shrublands on limestone ridges (floristic community type 26a as originally described in Gibson et al. (1994)) (SCP26a) TEC, located approximately 400 metres west of the application area, separated by cleared land associated with the existing YRE Project development footprint and historical access tracks.</p> <p>The closest mapped state-listed PEC is an occurrence of the Tuart (<i>Eucalyptus gomphocephala</i>) woodlands and forests of the Swan Coastal Plain (Tuart Woodlands) PEC, located approximately 35 metres north-east of the application area, separated by historically cleared access tracks.</p> <p>The flora and vegetation survey identified that the patch of remnant vegetation to the east of the application area was likely to be representative of the Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region (Banksia Woodlands) TEC (Natural Area, 2022). With consideration for the site characteristics set out above, relevant datasets (see Appendix F.1), and biological survey information (Natural Area, 2022), impacts to this ecological community required further consideration (see Appendix A.4).</p>
Fauna	<p>The desktop assessment identified that a total of 42 threatened or priority fauna species have been recorded within the local area, including 18 threatened fauna species, 10 priority fauna species, 11 fauna species protected under international agreement, two other specially protected fauna species, and one extinct species (DBCA, 2007-). None of these existing records occur within the application area, with the closest record being an occurrence of Carnaby's cockatoo, approximately 180 metres from the application area.</p> <p>With consideration for the site characteristics set out above, relevant datasets (see Appendix F.1), the habitat preferences of the aforementioned species, and biological survey information (Natural Area, 2022), the application area may provide suitable habitat for five conservation significant fauna species and impacts to these species required further consideration (see Appendix A.3).</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	222,916.97	14.85
Vegetation complex*					
Cottesloe Complex-Central and South	45,299.61	14,567.87	32.16	6606.12	14.58
Local area (calculation - delete if not required)					
10-kilometre radius	21,040.87	13,326.11	63.33	-	-

*Government of Western Australia (2019a)

**Government of Western Australia (2019b)

A.3. Fauna analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix F.1), the distribution and extent of existing records, and biological survey information (Natural Area, 2022), impacts to the following conservation significant fauna required further consideration.

Species name	Conservation status	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>Zanda latirostris</i> (previously <i>Calyptorhynchus latirostris</i>) (Carnaby's cockatoo)	EN	Y	Y	0.17	511	Y
<i>Falco peregrinus</i> (Peregrine falcon)	OS	Y	Y	7.5	6	Y
<i>Idiosoma sigillatum</i> (Swan Coastal Plain shield-backed trapdoor spider)	P3	N	Y	3.0	2	N
<i>Isodon fusciventer</i> (quenda)	P4	N	Y	2.2	49	Y
<i>Neelaps calonotos</i> (Black-striped burrowing snake)	P3	N	Y	4.2	4	N

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority, OS: Other specially protected fauna

A.4. Ecological community analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix F.1), and biological survey information (Natural Area, 2022), impacts to the following conservation significant ecological communities required further consideration.

Community name	Conservation status	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]
Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region (Banksia Woodlands)	Priority 3	Y	Y	Y	1.9	82	Y

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, 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>Principle (a): <i>“Native vegetation should not be cleared if it comprises a high level of biodiversity.”</i></p> <p>Assessment: The area proposed to be cleared contains significant foraging habitat for Carnaby’s cockatoo and occurs within a larger patch of remnant vegetation that is likely to be representative of the Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region ecological community.</p>	May be at variance	Yes <i>Refer to Sections 3.2.1 and 3.2.2, above.</i>
<p>Principle (b): <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>Assessment: The area proposed to be cleared contains significant foraging habitat for Carnaby’s cockatoo.</p>	At variance	Yes <i>Refer to Section 3.2.1, above.</i>
<p>Principle (c): <i>“Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</i></p> <p>Assessment: The area proposed to be cleared is unlikely to contain habitat for Threatened flora, based on the findings of a suitably timed flora and vegetation survey (Natural Area, 2022).</p>	Not likely to be at variance	No
<p>Principle (d): <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>Assessment: Based on the findings of the flora and vegetation survey (Natural Area, 2022), the area proposed to be cleared occurs within a larger patch of remnant vegetation that is likely to be representative of the Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region community, listed as a TEC under the Commonwealth EPBC Act.</p>	May be at variance	Yes <i>Refer to Section 3.2.2, above.</i>
Environmental value: significant remnant vegetation and conservation areas		
<p>Principle (e): <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>Assessment: The extent of native vegetation within the Swan Coastal Plain IBRA Bioregion, the mapped Swan Coastal Plain vegetation type, and 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>Principle (h): <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>Assessment: Given the distance to and separation from the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of conservation areas in the vicinity.</p>	Not likely to be at variance	No
Environmental value: land and water resources		

Assessment against the clearing principles	Variance level	Is further consideration required?
<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>: Given the distance to and separation from the nearest water courses and wetlands in the local area, the proposed clearing is unlikely to be within an environment associated with a watercourse or wetland.</p>	Not likely to be 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>: The mapped soils are moderately susceptible to wind erosion. However, it is noted that the proposal includes the clearing of 0.53 hectares of vegetation across a linear footprint and that a crushed limestone layer will be applied to the access track to ensure the sandy soils are not exposed to ongoing weathering or degradation. Noting the above and that the vegetation has been degraded through use of the adjacent access tracks and fire breaks, 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>: Given the distance to and separation from the nearest water courses and wetlands in the local area, the proposed clearing is unlikely to impact surface or ground water quality.</p>	Not likely to be at variance	No
<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>: The mapped soils and topographic contours in the surrounding area do not indicate that the application area is susceptible to flooding or waterlogging. Noting this, the extent of the proposed clearing across a linear footprint, and the primarily degraded condition of the vegetation, the proposed clearing is unlikely to contribute to increased incidence or intensity of flooding.</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

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

Calculation	Score (Area)	Rationale
Conservation significance		
Description	Carnaby's cockatoo foraging habitat	The proposed clearing will impact on 0.259 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	
Significant impact		
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 purpose of an access track to facilitate construction works on the Yanchep Rail Extension Project.
Significant impact (hectares) / Type of feature	0.259	0.259 hectares of quality foraging habitat for Carnaby's cockatoo occurs within the application area and is proposed to be cleared according to vegetation mapping from the <i>NEWest Alliance Flora and Vegetation Survey – Access Track (Natural Area, 2021)</i> .
Quality (scale) / Number	7.00	The <i>NEWest Alliance Flora and Vegetation Survey – Access Track (Natural Area, 2021)</i> identified that foraging habitat within the application area is in Completely Degraded to Very Good (Keighery, 1994) condition. However, the foraging habitat within the application area comprises <i>Banksia</i> spp. which are a primary foraging resource for Carnaby's cockatoo on the Swan Coastal Plain and evidence of individuals foraging within the application area was observed during the survey. The application is also located within 6 kilometres of 10 confirmed roost sites and may support foraging by roosting individuals.
Rehabilitation credit		
N/A	N/A	The applicant advised that once use of the access track as part of the Yanchep Rail Extension project ceases, the area will be handed back to the Urban Quarter developer and maintained as a firebreak and access between future public open space and remnant vegetation (NEWest, 2022). Therefore, the clearing will be permanent, and no on-site rehabilitation is proposed.
Offset		
Description	Land acquisition	A single offset involving the purchase and transfer into the conservation estate of an offset site that includes native vegetation that comprises significant foraging habitat for Carnaby's cockatoo.
Proposed offset (area in hectares)	1.15	The acquisition and conservation in perpetuity of 1.15 hectares of native vegetation that comprises significant foraging habitat for Carnaby's cockatoo is required to offset the residual impacts to this species.
Current quality of offset site / Start	8.00	It is assumed that the native vegetation that comprises significant foraging habitat for Carnaby's cockatoo within the offset site will be in Very Good (Keighery, 1994) condition.

Calculation	Score (Area)	Rationale
number (of type of feature)		
Future quality WITHOUT offset (scale) / Future number WITHOUT offset	8.00	It is assumed that the offset site is currently rural-zoned freehold land and that the quality of native vegetation that comprises significant foraging habitat for Carnaby's cockatoo within the offset site is unlikely to change significantly over a one-year period.
Future quality WITH offset (scale) / Future number WITH offset	8.00	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, including native vegetation that comprises significant foraging habitat for Carnaby's cockatoo.
Time until ecological benefit (years)	1.00	It is assumed that the offset site will be purchased within 1 year of clearing. It is also proposed that the land will be ceded to the conservation estate within this timeframe.
Confidence in offset result (%)	0.9	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.
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)	1.00	It is assumed that the offset site will be purchased and secured in conservation estate within 1 years of clearing.
Risk of future loss WITHOUT offset (%)	30.0%	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 (%)	10.0%	The future conservation (in perpetuity) of the offset site would result in a substantial increase in security and substantially reduce the risk of loss.
Offset ratio (Conservation area only)	N/A	
Landscape level values of offset?	N/A	

Appendix E. Biological survey information excerpts

The applicant commissioned the '*NEWest Alliance Flora and Vegetation Survey – Access Track*' (the flora and vegetation survey) to provide an indication of flora, vegetation, and black cockatoo habitat values in remnant native vegetation along an existing access track associated with the Urban Quarter Stockpile (Natural Area, 2022). The flora and vegetation survey included a desktop review, a detailed flora and vegetation survey, and a basic fauna survey (Natural Area, 2022). Survey descriptions and mapping excised from the flora and fauna surveys are available in Table 1 and Figures 3 to 5 below.

Desktop review

The desktop review for the detailed flora and vegetation survey and basic fauna survey was undertaken by experienced ecologists and involved the following:

- A review of DBCA's NatureMap and FloraBase databases and the Department of Agriculture, Water and Environment's (now DCCEEWS) Protected Matters Search Tool (utilising an approximate 5-kilometre radius surrounding the survey area) to gather records in the locality, and
- A likelihood analysis to determine the likely presence of threatened or priority flora, fauna or ecological communities based on nearby records and mapped community types (Natural Area, 2022).

Flora and vegetation survey

The methods of the flora and vegetation survey were in accordance with the *EPA Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016). The flora and vegetation assessment was undertaken by experienced ecologists and involved the following:

- Field surveys over two days between 1 and 15 October 2021, including comprehensive sampling of three transect lines (one per vegetation type) along the entire linear length of the survey alignment,
- Vegetation type and condition mapping for the survey area, using data collected from transects and opportunistic sampling,
- Targeted searches for significant flora identified in the likelihood of occurrence assessment, and
- Determining the presence of conservation significant ecological communities based on state and federal listing criteria (Natural Area, 2022).




Basic fauna survey

The methods of the terrestrial fauna assessment were in accordance with the *EPA Technical Guidance – Vertebrate Fauna Surveys for Environmental Impact Assessment* (EPA, 2020). The terrestrial fauna assessment was undertaken by experienced ecologists and involved the following:

- Field surveys over two days between 1 and 15 October 2021, involving traversing the survey area to record direct sightings or indirect evidence of fauna and potential fauna habitat (e.g., scats, tracks, diggings, burrows, foraging, and calls), and
- Identification of habitat trees with a diameter at breast height (DBH) of greater than 500 millimetres that may provide suitable breeding habitat for black cockatoo species (Natural Area, 2022).

Survey descriptions and mapping

Table 1. Vegetation type descriptions within the application area for CPS 9487/1 (Natural Area, 2022).

Vegetation Type	Description	Photograph
<i>Acacia saligna</i> Open Shrubland	Open shrubland of <i>Acacia saligna</i> over an understorey of introduced grasses and herbs particularly <i>Pelargonium capitatum</i> .	 A photograph showing a landscape with scattered trees and dense grasses, characteristic of an open shrubland.
Open <i>Banksia</i> spp. Woodland	An open woodland of <i>Banksia attenuata</i> and <i>Banksia menziesii</i> trees over a middle storey of <i>Banksia sessilis</i> and <i>Hakea trifurcata</i> shrubs and an understorey of mixed introduced grasses and herbs.	 A photograph of a dirt road winding through a woodland area with various trees and shrubs under a blue sky.
<i>Banksia sessilis</i> Shrubland	Shrubland of <i>Banksia sessilis</i> over an understorey of mixed introduced grasses and herbs.	 A photograph showing a dense thicket of shrubs and grasses, typical of a shrubland.

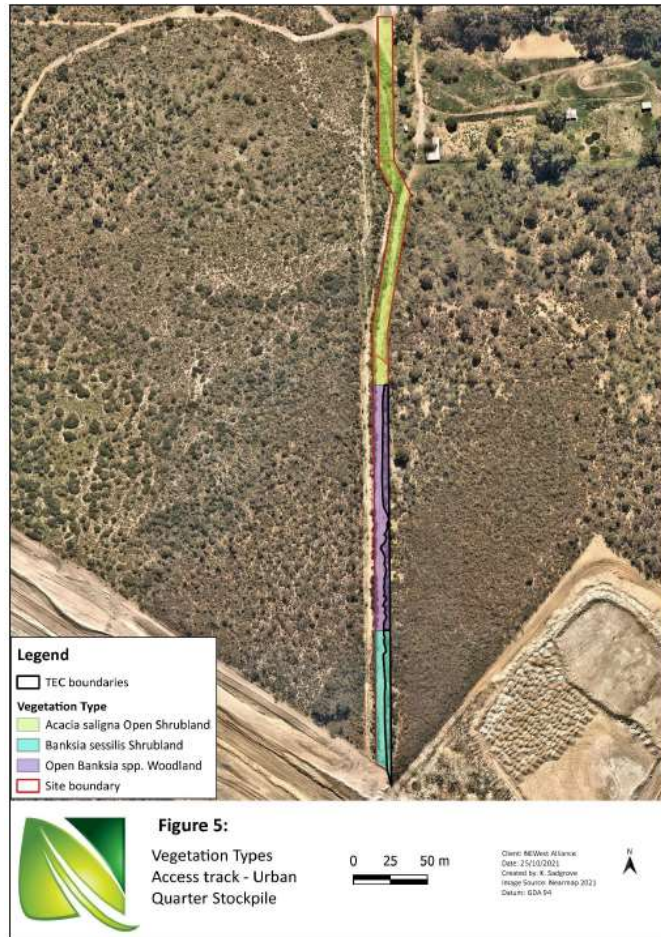


Figure 3. Vegetation type mapping within the application area for CPS 9487/1 (Natural Area, 2022).
 (a) (b)

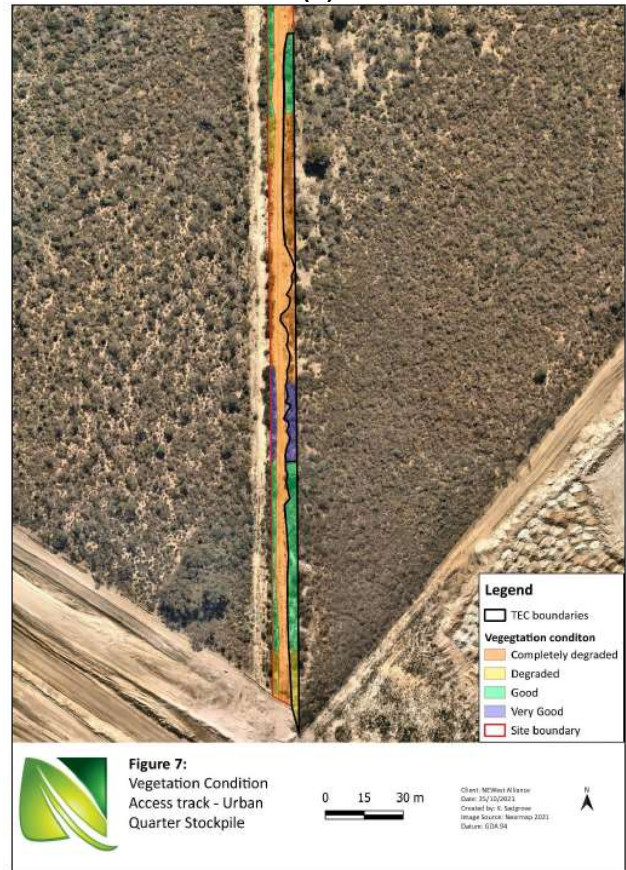


Figure 4(a-b). Vegetation condition mapping within the application area for CPS 9487/1 (Natural Area, 2022).



Figure 5. Location of black cockatoo foraging evidence within the application area for CPS 9487/1 (Natural Area, 2022).

Appendix F. Sources of information

F.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)
- Bush Forever Areas 2000 (DPLH-019)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- CAWSA Part 2A Clearing Control Catchments (DWER-004)
- Consanguineous Wetlands Suites (DBCA-020)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- DBCA Statewide Vegetation Statistics
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Geomorphic Wetlands, Swan Coastal Plain (DBCA-019)
- Groundwater Salinity Statewide (DWER-026)
- Hydrographic Catchments - Catchments (DWER-028)
- Hydrographic Catchments - Divisions (DWER-029)
- Hydrography, Linear (Hierarchy) (DWER-031)
- 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 (DPIRD-006)
- 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 (DPIRD-027)
- Soil Landscape Mapping – Systems (DPIRD-064)
- Vegetation Complexes - Swan Coastal Plain (DBCA-046)

Restricted GIS Databases used:

- Conservation Covenants Western Australia (DPIRD-023)
- Contaminated Sites Database - Restricted (DWER-073)
- 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)

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