GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 10997/1
Permit Holder:	Leeuwin Civil Pty Ltd
Duration of Permit:	From 10 September 2026 to 10 September 2036

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 sand extraction.

2. Land on which clearing is to be done

Lot 103 on Diagram 51141, Stratham

3. Clearing authorised

The permit holder must not clear more than 50 native trees within the area cross-hatched yellow in Figure 1 of Schedule 1.

4. Period during which clearing is authorised

The permit holder must not clear any *native vegetation* after 10 September 2031.

PART II – MANAGEMENT CONDITIONS

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

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

(a) avoid the clearing of *native vegetation*;

(b) minimise the amount of *native vegetation* to be cleared; and

(c) reduce the impact of clearing on any environmental value.

6. Weed and dieback management

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

(a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;

(b) ensure that no known *dieback* or *weed*-affected soil, *mulch, fill*, or other material is brought into the area to be cleared; and

(c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

7. Revegetation and rehabilitation

The permit holder must, within 24 months of undertaking *clearing* authorised under this permit:

(a) undertake deliberate *planting* of a minimum 100 *black cockatoo foraging trees,* within the area cross-hatched red in Figure 1 of Schedule 1;

(b) ensure only *local provenance* propagating material is used in *planting*;

(c) ensure *planting* is undertaken at an *optimal time*;

(d) undertake *weed* control and watering of *plantings* for at least three years post *planting*;

(e) the permit holder must, within 24 months of *planting* in accordance with *condition* 7(a);

  (i) engage an *environmental specialist* to determine whether at least 100 *black cockatoo foraging trees* are likely to survive; and

  (ii) if the determination made by the *environmental specialist* under *condition* 7(e)(i) is that at least 100 *black cockatoo foraging trees* will not survive, the permit holder must plant additional *black cockatoo foraging trees* that will result in at least 100 *black cockatoo foraging trees* persisting within the area cross-hatched red in Figure 1 of Schedule 1.

(f) where additional *planting* is undertaken in accordance with *condition* 7(e)(ii), the permit holder must repeat the activities required by *condition* 7(b), *condition* 7(c), and *condition* 7(d) and *condition* 7(e).

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	(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 2020 (GDA2020),

No.	Relevant matter	Specifications
		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* 5; (f) actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with *condition* 6.
2.	In relation to *revegetation* and *rehabilitation* pursuant to *condition* 7	(a) the boundaries of any areas *revegetated* and *rehabilitated* provided digitally as a shapefile; (b) a description of the *revegetation* and *rehabilitation* activities undertaken; (c) the species composition, structure and density of the *revegetation* and *rehabilitation* areas*;* (d) the species and number of *black cockatoo foraging trees* planted in accordance with *condition 7*; (e) details of *weed* control and watering undertaken in accordance with *condition* 7(d), including dates and methods used; (f) details of any supplementary *planting* undertaken in accordance with *condition 7*(e)(ii); (g) the number of planted *black cockatoo foraging trees* surviving at the time of assessment by the *environmental specialist*; and (g) a copy of the *environmental specialist's* report.

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
Black cockatoo foraging trees	means native plant species that provide foraging value for Carnaby's cockatoo, Baudin's cockatoo and forest red-tailed black cockatoo, including but not limited to *Eucalyptus marginata* (jarrah) and *Corymbia calophylla* (marri).
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*.
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.
dieback	means the effect of *Phytophthora* species on native vegetation.
department	means the department established under section 35 of the *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
environmental specialist	means a person who holds a tertiary qualification in environmental science or equivalent and has a minimum of 2 years work experience relevant to the type of environmental advice that an environmental specialist is required to provide under this permit, or who is approved by the *CEO* as a suitable environmental specialist.
EP Act	*Environmental Protection Act 1986* (WA).
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.
local provenance	means native vegetation seeds and propagating material from natural sources within 50 kilometres and the same IBRA subregion of the area cleared, unless otherwise approved by the CEO.
optimal time	means the period from April to July for undertaking *planting* or *direct seeding*.
planting	means the re-establishment of vegetation by creating favourable soil conditions and *planting* seedlings of the desired species.
rehabilitate, rehabilitated and rehabilitation	means actively managing an area containing native vegetation in order to improve the ecological function of that area.
revegetate, revegetated and revegetation	means the re-establishment of a cover of native vegetation in an area such that the species composition, structure and density is similar to pre-clearing vegetation types in that area, and can involve regeneration, *direct seeding* and/or *planting*.
weeds	means any plant – (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or

Term	Definition
	(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



Meenu Vitarana
MANAGER
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

19 August 2026

Schedule 1

The boundaries of the area authorised to be cleared, and those subject to revegetation and rehabilitation requirements, are shown in the map below (Figure 1).



Figure 1: Map of the boundary of the area within which clearing may occur, cross-hatched yellow, and revegetation and rehabilitation must occur, cross-hatched red.

Government of Western Australia
Department of Water and Environmental Regulation

Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 10997/1
Permit type:	Purpose permit
Applicant name:	Leeuwin Civil Pty Ltd
Application received:	19 March 2025
Application area:	50 native trees
Purpose of clearing:	Gravel extraction
Method of clearing:	Mechanical
Property:	Lot 103 on Diagram 51141
Location (LGA area/s):	Shire of Capel
Localities (suburb/s):	Stratham

1.2. Description of clearing activities

The vegetation proposed to be cleared consists of 50 isolated trees, contained within a single contiguous area (see Figure 1, Section 1.5).

The proposed clearing is to selectively clear 41 alive trees and nine dead trees for sand extraction. In the past, vegetation within the application area has been cleared for livestock grazing and is comprised of pasture/bare ground with *Corymbia calophylla* (marri), *Eucalyptus marginata* (jarrah) and dead unidentified species.

1.3. Decision on application

Decision:	Granted
Decision date:	18 August 2026
Decision area:	50 native trees, 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), relevant datasets (see Appendix E.1), the clearing principles set out in Schedule 5 of the EP Act (see Appendix B), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3).

The assessment identified that the proposed clearing will result in:

- the loss of native vegetation that provide foraging and roosting habitat for all three species of black cockatoos,
- clearing of significant remnant native vegetation in an area that has been extensively cleared, and

- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacently mapped Tuart woodlands threatened ecological community vegetation and its habitat values.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 2.1), the Delegated Officer determined the proposed clearing can be minimised and managed to unlikely lead to an unacceptable risk to environmental values. The applicant has suitably demonstrated avoidance and minimisation measures, the revegetation efforts counterbalance the impacts to black cockatoo habitat, and impacts to the remnant vegetation within an extensively cleared landscape (see Section 4).

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

- Take hygiene steps to minimise the risk of the introduction and spread of weeds.
- undertake revegetation by planting 100 trees consisting of peppermint (*Agonis flexuosa),* jarrah *(Eucalyptus marginata),* marri *(Corymbia calophylla)* and flooded gum (*Eucalyptus rudis).*

1.5. Site map



Figure 1 Map of the application area

The areas crosshatched yellow indicates the areas authorised to be cleared under the granted clearing permit.

The area cross-hatched red indicates area subject to conditions.

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 principle of the conservation of biological diversity and ecological integrity.*

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

Information was submitted by the applicant, demonstrating that the following avoidance and mitigation measures will be implemented (Accendo Australia, 2025)

- Specifically, to avoid any direct impact to native fauna during vegetation clearing, the following management measures will be implemented (Accendo Australia, 2025):
  - (a) During clearing, a qualified fauna expert will be present to direct clearing operators, particularly when clearing trees are occupied by fauna, to ensure that these are cleared in a way that allows the animals to safely mobilise to adjacent areas. In addition, they will supervise any animal handling and the rescue of injured animals should this be required;
  - (b) No stockpiling of topsoil or other material is to occur outside of the clearing boundary;
  - (c) If clearing during black cockatoo breeding season (i.e. August to May), potential habitat trees (i.e. DBH in excess of 50 cm) for nesting hollows will be checked; and
  - (d) If active black cockatoo nests are located in the clearing footprint, no clearing will occur until fledglings have left the nest.

- Excavation area has been designed to minimize clearing where possible.
- Revegetation, planting of 100 trees consisting of peppermint (*Agonis flexuosa),* jarrah *(Eucalyptus marginata),* marri *(Corymbia calophylla)* and flooded gum (*Eucalyptus rudis).*

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.

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 that the impacts of the proposed clearing present a risk to biological values (significant remnant vegetation). 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 - Significant habitat for fauna - Clearing Principle b

The desktop survey concludes that the application area is within habitat for black cockatoo species with records of individuals located around six kilometres away from the application area. There are also records of *Isoodon fusciventer* (quenda), *Phascogale tapoatafa wambenger* (south-western brush tailed phascogale) and *Pseudocheirus occidentalis* (western ringtail possum) with individual records located around 0.04 kilometres from the nearest tree proposed to be cleared. The fauna assessment found none of these fauna species present during the survey.

A targeted fauna assessment was undertaken (Harewood, 2023) which included a literature review, a daytime reconnaissance survey and a nocturnal spotlighting survey. The field component of the fauna assessment was carried out on the 22 April 2023 (day survey) and the 26 April (night survey) (Accendo Australia, 2025 & Harewood, 2023). No evidence of black cockatoos roosting or western ringtail possums were observed.

Black cockatoos
The species of vegetation to be cleared, being *Eucalyptus marginata* (jarrah) and *Corymbia calophylla* (marri) may provide foraging and roosting habitat for all three species of black cockatoo, being *Calyptorhynchus latirostris* (carnaby's black cockatoo), *Calyptorhynchus banksii naso* (forest-red tailed black cockatoo) and *Calyptorhynchus baudinii* (baudins cockatoo). The application area is within the distribution range for all three species of black cockatoos.

Breeding habitat
The fauna assessment (Harewood, 2023) identified 11 trees with hollows, varying from small to large, including hollows on dead, unidentified tree species. All hollows were assessed as being unlikely to be suitable for black cockatoos to use for nesting purposes, due to the hollows apparent small size, unsuitable orientation and/ or low height above ground level (Harewood, 2023). There is a breeding hollow site 5.5 kilometres away.

Roosting habitat

Some of the taller mature trees within the application area is likely to provide roosting habitat for black cockatoos. A black cockatoo roost site is located 6.8 kilometres from the application area.

Foraging habitat

Of the 50 trees proposed to be cleared, 41 trees are live trees likely to provide suitable foraging habitat for black cockatoos, noting a majority are jarrah and marri trees.

Noting the above, the application area is likely to provide suitable foraging and roosting habitat for black cockatoos. The fauna survey did not identify evidence of use by black cockatoos (Harewood, 2023), and noting the parkland cleared nature of the application area, black cockatoos are likely to use better quality vegetation in adjacent areas for foraging and roosting. Nevertheless, noting the distance to nearby roost and breeding sites, the application area is still considered to provide significant foraging and roosting habitat for black cockatoos. The revegetation of 100 trees using preferred species for black cockatoos will appropriately mitigate the impacts of the proposed clearing of black cockatoo habitat.

Western Ringtail possum (WRP)
Suitable habitat for *Pseudocheirus occidentalis* (western ringtail possum) is adjacent to the application area with one of the 50 trees proposed to be cleared mapped within *Pseudocheirus occidentalis* (western ringtail possum) habitat. The tree is only 0.04 kilometres from an individual recorded in 2018.

Although the trees within the application area, being jarrah and marri, are not the preferred vegetation type for *Pseudocheirus occidentalis* (western ringtail possum), the tree species can still provide habitat for the purposes of shelter and feeding. Due to the lack of canopy cover and the western ringtail possum's preference for continuous tree canopies, the application area is unlikely to provide significant habitat for *Pseudocheirus occidentalis* (western ringtail possum). The revegetation efforts of planting the proposed species in the revegetation plan may be beneficial for the *Pseudocheirus occidentalis* (western ringtail possums), providing continuous canopy cover which the current application area does not have. The fauna survey did not identify any *Pseudocheirus occidentalis* (western ringtail possum) within the application area, confirming that the application area only provides marginal habitat (trees closer to adjacent native vegetation) for western ringtail possum (Harewood, 2023).

Conclusion

The proposed clearing may provide significant foraging and roosting habitat for black cockatoos and does not provide significant habitat for the western ringtail possum due to the lack of tree canopy cover.

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

- Revegetation by planting 100 trees consisting of peppermint (*Agonis flexuosa),* jarrah *(Eucalyptus marginata),* marri *(Corymbia calophylla)* and flooded gum (*Eucalyptus rudis).*

3.2.2. Biological values - Significant remnant vegetation - Clearing Principle e

Assessment
The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present prior to the year 1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001).

The application area is located within the Swan Coastal Plain bioregion. The Swan Coastal Plain (IBRA) bioregion retains approximately 38.6 per cent of its pre-European vegetation extent (Government of Western Australia 2019a). Approximately 94 per cent of the application area is mapped within the Serpentine River Complex vegetation type (Heddle et al. 1980), which retains 9.77 per cent of its pre-european extent. The remaining 6% of the application area is mapped within the (Heddle et al. 1980), which retains approximately 23.49 per cent of its pre-European extent (Government of Western Australia 2019b). The vegetation proposed for clearing, being primarily *Eucalyptus marginata* (Jarrah) and *Corymbia calophylla* (Marri), is characteristic of the Karrakatta Complex – Central and South vegetation type. This type predominantly comprises of open forest of *Eucalyptus gomphocephala* (Tuart), *Eucalyptus marginata* (Jarrah), and *Corymbia calophylla* (Marri), and woodland of *Eucalyptus marginata* (Jarrah) and *Banksia* species.

Within the local area, defined as a 10-kilometre radius from the application area, an estimated 23.25 per cent of the pre-European native vegetation remains (Appendix A.2; Government of Western Australia 2019a). The vegetation proposed to be cleared is considered as significant remnant vegetation noting the application area provides habitat for black cockatoos and the local is below the national objectives and targets for biodiversity conservation in Australia.

Conclusion
Based on the above assessment, the proposed clearing will result in the clearing of native vegetation in an extensively cleared landscape. Onsite revegetation will mitigate the significant residual impacts to remnant vegetation and ensure the habitat is not permanently lost. It is considered that the impacts of the proposed clearing can also be managed by taking steps to minimise the risk of the introduction and spread of weeds to adjacent vegetation.

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

- Take hygiene steps to minimise the risk of the introduction and spread of weeds.
- Revegetation by planting 100 trees consisting of peppermint (*Agonis flexuosa),* jarrah *(Eucalyptus marginata),* marri *(Corymbia calophylla)* and flooded gum (*Eucalyptus rudis).*

3.3. Relevant planning instruments and other matters

Other relevant authorisations to be obtained for the proposed land use include:

- Planning approval (issued by Development Assessment Panel (DAP).
- Extractive industry license (issued by the Shire of Capel).

The shire of Capel were provided the opportunity to comment on the clearing permit application, and no comments were received.

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

End

Appendix A. Site characteristics

A.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is an isolated area of 50 trees in the intensive land use zone of Western Australia, zoned as rural. It is within a freehold lot, adjacent to a minor watercourse and a mapped banksia woodland threatened ecological community.
Ecological linkage	There are no formal ecological linkages mapped within the application area. The closest ecological linkage is located approximately 2.1 km away from the application area.
Conservation areas	The closest conservation area is a DBCA land of interest, located 0.4 km away from the application area.
Vegetation description	Photographs supplied by the applicant indicate the vegetation within the proposed clearing area consists of jarrah and marri trees, with cleared/no understory vegetation. Representative photos are available in Appendix D. This is consistent inconsistent with the following mapped vegetation type, which covers 94% of the application area: • Swan Coastal plain Serpentine river complex, which is described as Closed scrub of Melaleuca species and fringing woodland of Eucalyptus rudis (Flooded Gum) - Melaleuca rhaphiophylla (Swamp Paperbark) along streams. (Shepherd et al, 2001). However this is similar to the following mapped vegetation type, which covers 6% of the application area: • Swan Coastal Plain Karrakatta Complex-Central and South, which is described as Predominantly open forest of Eucalyptus gomphocephala (Tuart) - Eucalyptus marginata (Jarrah) - Corymbia calophylla (Marri) and woodland of Eucalyptus marginata (Jarrah) - Banksia species. Agonis flexuosa (Peppermint) is co-dominant south of the Capel River. Spatial data indicates the local area (10 kilometre radius from the centre of the area proposed to be cleared) retains approximately 23.25 per cent of the original native vegetation cover (GIS database)
Vegetation condition	Photographs supplied by the applicant indicate the vegetation within the proposed clearing area is in completely degraded to degraded (Keighery, 1994) condition, described as: • 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. • 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. The full Keighery (1994) condition rating scale is provided in Appendix C. [Representative photos are available in Appendix D.
Climate and landform	The climate experienced in the area is a Mediterranean climate, with dry, hot summers and cool, wet winters
Soil description	The soil is mapped as Spearwood S1b Phase (211Sp__S1b), which is described as Dune ridges with deep siliceous yellow brown sands or pale sands with yellow-brown subsoil and slopes up to 15%.

<table>
<tr><th>Characteristic</th><th>Details</th></tr>
<tr><td>Land degradation risk</td><td>Wind erosion is the primary land degradation risk of the proposed clearing as shown in the table below (QGIS database, 2025).
<table>
<tr><th>Risk categories</th><th>Land Unit 1</th></tr>
<tr><td>Wind erosion</td><td>H2 >70% of map unit has a high to extreme wind erosion risk</td></tr>
<tr><td>Water erosion</td><td>L1 <3% of map unit has a high to extreme water erosion risk</td></tr>
<tr><td>Salinity</td><td>L1 <3% of map unit has a moderate to high salinity risk or is presently saline</td></tr>
<tr><td>Subsurface Acidification</td><td>M1 10-30% of map unit has a high subsurface acidification risk or is presently acid</td></tr>
<tr><td>Flood risk</td><td>M2 30-50% of map unit has a high water repellence risk</td></tr>
<tr><td>Water logging</td><td>L1 <3% of map unit has a moderate to very high waterlogging risk</td></tr>
<tr><td>Phosphorus export risk</td><td>M1 10-30% of map unit has a high to extreme phosphorus export risk</td></tr>
</table></td></tr>
<tr><td>Waterbodies</td><td>The desktop assessment and aerial imagery indicates that one minor, non-perennial watercourse is 60 metres adjacent to the application area.</td></tr>
<tr><td>Hydrogeography</td><td>The application area is located within the Bunbury Groundwater Area which is proclaimed under the Rights in Water and Irrigation Act 1914.
Groundwater salinity is mapped between 1000-3000 milligrams per litre total dissolved solids.</td></tr>
<tr><td>Flora</td><td>Within 10km of the application area, there are records of eight threatened flora species, and 12 priority species.
Five priority flora are found on the same vegetation type:
• Caladenia speciosa
• Leucopogon sp. Busselton (D. Cooper 243)
• Pterostylis frenchii
• Schoenus benthamii
• Stylidium paludicola

Three priority flora and one threatened flora are found in the same soil type as the application area:
• Caladenia huegelii
• Lasiopetalum membranaceum
• Ornduffia submersa</td></tr>
<tr><td>Ecological communities</td><td>The closest threatened ecological community to the application area is 26 metres from the application area:
• Banksia Woodlands of the Swan Coastal Plain ecological community, Priority 3.
The vegetation within the application area is not representative of the banksia woodland of the Swan Coastal Plain ecological community and any other known threatened or priority ecological community.</td></tr>
<tr><td>Fauna</td><td>There are records of 10 fauna of conservation significance within the local area. There is a breeding hollow site 5.5 kilometres away, and a known black cockatoo roost site 6.8 kilometres away.
The application area is adjacent to mapped western ringtail possum habitat, mapped less then 5 metres away.</td></tr>
</table>

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	579813.47	38.62	222,916.97	14.85
Vegetation complex					
Serpentine River Complex	19,855.41	1,940.18	9.77	517.49	2.61
Karrakatta Complex-Central and South	53,080.99	12,467.20	23.49	4,282.73	8.07
Local area					
Local area radius 10km	243,119.00	5,533.99	23.25	-	-

*Government of Western Australia (2019a)

**Government of Western Australia (2019b)

A.3. Flora analysis table

Species 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 (total)
Caladenia speciosa	4	N	N	Y	1.68	1
Leucopogon sp. Busselton (D. Cooper 243)	2	N	N	Y	8.58	1
Pterostylis frenchii	2	N	N	Y	4.47	1
Schoenus benthamii	3	Y	Y	Y	4.02	2
Stylidium paludicola	3	N	N	Y	9.59	1
Caladenia huegelii	T	Y	Y	Y	2.65	1
Lasiopetalum membranaceum	3	Y	Y	Y	9.64	2
Ornduffia submersa	4	N	Y	N	0.47	1

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

A.4. 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)	Number of known records (total)
western ringtail possum, ngwayir	CR	N	Y	0.04	446
Carnaby's cockatoo	EN	Y	Y	6.84	4
forest red-tailed black cockatoo	VU	Y	Y	6.54	4
quenda, southwestern brown bandicoot	P4	N	N	2.40	2

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 (total)
south-western brush-tailed phascogale, wambenger	CD	N	Y	8.09	3

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		
Principle (a): *"Native vegetation should not be cleared if it comprises a high level of biodiversity."* Assessment: The 50 trees proposed to be cleared include isolated tree species of *Eucalyptus marginata* (Jarrah), marri and unidentified species of dead trees, with no understory vegetation (parkland cleared), with minimal biodiversity values.	Not likely to be at variance	No
Principle (b): *"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."* Assessment: The application area is adjacent to *Pseudocheirus occidentalis* (Western ringtail possum) habitat, and within mapped black cockatoo habitat. The species proposed to be cleared are suitable foraging species for black cockatoo. The taller trees provide suitable roosting habitat. Impacts to western ringtail possums are unlikely due to the lack of canopy connectivity within the application area and adjacent areas.	At variance	Yes *Refer to Section 3.2.1, above.*
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: The area proposed to be cleared is unlikely to contain habitat for flora species listed under the BC Act. The application area consists of no understory vegetation, cleared and completely degraded land with invasive weeds. This is not a significant habitat for threatened flora.	Not likely to be at variance	No
Principle (d): *"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."* Assessment: The area proposed to be cleared does not contain vegetation representative of a threatened ecological community. The tuart woodland threatened ecological community is mapped along the western border of the application area. However, noting the application area does not contain any live tuart trees, it is not representative of this ecological community. The mitigation efforts of reducing weed spread, and planting in accordance with the revegetation conditions will effectively mitigate the impact to the adjacent tuart woodland threatened ecological community.	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: significant remnant vegetation and conservation areas		
Principle (e): *"Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."* Assessment: The extent of the mapped vegetation type is not consistent with the national objectives and targets for biodiversity conservation in Australia, being an extent of 30 per cent. The vegetation within the application area is mapped within Serpentine River Complex (Heddle et al 1980) which retains approximately 9.77 per cent of its pre-European extent, and the Karrakatta Complex-Central and South (Heddle et al 1980), which retains approximately 23.49 per cent of its pre-European extent. The remnant vegetation within the local area (10 kilometres from the application area) retains 23.25 per cent remnant vegetation, which is under 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.	May be at variance	Yes *Refer to Section 3.2.3, above.*
Principle (h): *"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."* Assessment: Given the condition of the vegetation, the proposed clearing is not likely to have a significant impact on the environmental values of nearby conservation areas. The nearest conservation area (DBCA land of interest) is located 0.4km away from the application area. A buffer of 20m from any lot boundaries and 10m from the drip line of any vegetation to be retained will be maintained, mitigating possible significant impacts to the DBCA land of interest.	Not likely to be at variance	No
Environmental value: land and water resources		
Principle (f): *"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."* Assessment: There are no watercourses or wetlands mapped within the application area, and the proposed vegetation is not growing in association with a wetland or watercourse. The closest watercourse is a non-perennial watercourse mapped 60 metres away from the application area, however, given the degraded condition of vegetation present within the application area, and since the vegetation is not riparian vegetation, the proposed clearing is unlikely to impact on-site or off-site hydrology and water quality.	Not likely to be at variance	No
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: Noting the extent, condition of the vegetation and the available data, the proposed clearing is not likely to have an appreciable impact on water repellence, subsurface acidification and phosphorus export.	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
The mapped soils are susceptible to wind erosion, however given the area is already parkland cleared, it is unlikely the clearing of the trees will increase wind erosion risks.		
Principle (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."* Assessment: There are no drainage lines within the application area. A non-perennial watercourse is mapped 60 metres away from the application area. Given the degraded condition of the vegetation and no interaction with groundwater expected during excavation works, the proposed clearing is unlikely to impact surface or ground water quality.	Not likely to be at variance	No
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."* Assessment: The mapped soils and topographic contours in the surrounding area do indicate a risk of increased incidence or intensity of flooding. However, given the degraded condition of the application area, and the proposed revegetation efforts, impacts will be minimised effectively, and the clearing is unlikely to contribute to waterlogging.	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.

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

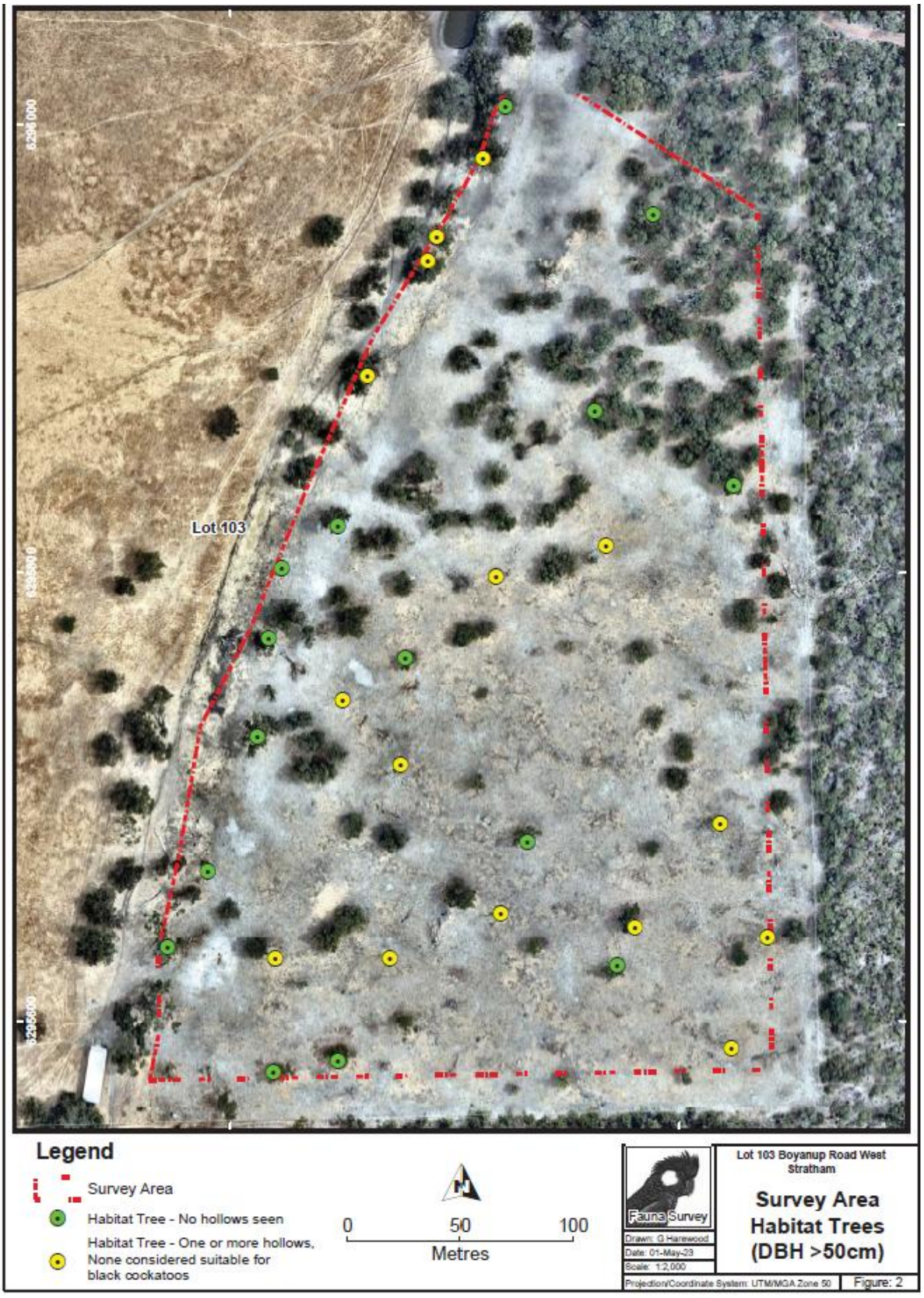
Appendix D. photographs of the vegetation



Plate 1. Cleared pasture with isolated trees (jarrah, marri and dead unidentified species)



Plate 2. Cleared pasture with isolated trees (jarrah, marri and dead unidentified species)


Lot 103
Legend
Survey Area
Habitat Tree - No hollows seen
Habitat Tree - One or more hollows, None considered suitable for black cockatoos
0
50
100
Metres
Fauna Survey
Drawn: G Harewood
Date: 01-May-23
Scale: 1:2,000
Projection/Coordinate System: UTM/MGA Zone 50
Lot 103 Boyanup Road West Stratham
Survey Area Habitat Trees (DBH >50cm)
Figure: 2

Habitat Trees (DBH >50cm)
Datum GDA 94
Estimated Hollow Entrance Size: Small+ <5cm, Medium = 5 to<10cm, Large = 10cm+

Waypoint Number	Zone	mE	mN	Tree Species	Tree Height (m)	DBH (cm)	Number of Hollows	Estimated Hollow Entrance Size	Occupancy	Chew Marks	Potential Cockatoo Nest Hollow	Comments
wpt002	50H	370419	6295577	Jarrah	10-15	>50	0					
wpt003	50H	370448	6295582	Jarrah	10-15	>50	0					
wpt005	50H	370623	6295588	Dead Unknown	15-20	>50	2+	Small, Medium & Large			No	Examined with drone
wpt007	50H	370639	6295637	Dead Unknown	20+	>50	2+	Large			No	Examined with drone
wpt009	50H	370618	6295688	Jarrah	15-20	>50	2+	Small & Medium			No	
wpt011	50H	370624	6295839	Marri	15-20	>50	0					
wpt013	50H	370588	6295960	Dead Jarrah	10-15	>50	0					
wpt014	50H	370562	6295872	Jarrah	10-15	>50	0					
wpt015	50H	370522	6296008	Flooded Gum	15-20	>50	0					
wpt019	50H	370512	6295985	Flooded Gum	15-20	>50	2+	Small			No	
wpt023	50H	370492	6295950	Flooded Gum	15-20	>50	2+	Small			No	
wpt024	50H	370488	6295939	Flooded Gum	15-20	>50	2+	Small			No	
wpt026	50H	370461	6295888	Flooded Gum	20+	>50	2+	Small			No	
wpt028	50H	370448	6295821	Marri	15-20	>50	0					
wpt029	50H	370423	6295802	Dead Unknown	15-20	>50	0					
wpt030	50H	370417	6295771	Dead Marri	15-20	>50	0					
wpt031	50H	370412	6295727	Marri	20+	>50	0					
wpt032	50H	370390	6295667	Marri	15-20	>50	0					
wpt035	50H	370372	6295633	Marri	20+	>50	0					
wpt042	50H	370420	6295628	Dead Jarrah	15-20	>50	2+	Small & Medium			No	
wpt043	50H	370471	6295628	Dead Unknown	15-20	>50	2+	Small			No	
wpt044	50H	370520	6295648	Dead Unknown	15-20	>50	2+	Medium & Large			No	Examined with drone
wpt045	50H	370532	6295680	Jarrah	15-20	>50	0					
wpt046	50H	370572	6295625	Jarrah	10-15	>50	0					
wpt047	50H	370580	6295642	Jarrah	15-20	>50	2+	Small, Medium & Large			No	Examined with drone
wpt048	50H	370567	6295812	Dead Unknown	15-20	>50	2+	Small & Medium			No	
wpt049	50H	370518	6295798	Dead Jarrah	5-10	>50	2+	Small & Medium			No	
wpt050	50H	370478	6295762	Jarrah	10-15	>50	0					
wpt051	50H	370450	6295743	Dead Unknown	15-20	>50	2+	Small & Medium			No	
wpt052	50H	370476	6295714	Dead Unknown	15-20	>50	2+	Medium & Large			No	Examined with drone

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.

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

DAWE (2022), Referral guideline for 3 WA threatened black cockatoo species: Carnaby's Cockatoo (Zanda latirostris), Baudin's Cockatoo (Zanda baudinii) and the Forest Red-tailed Black-cockatoo (Calyptorhynchus banksii naso), Department of Agriculture, Water and the Envronment, Canberra, February.

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/ (accessed 3 July 2025).

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) (2016). *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment*. Available from: http://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey_Dec13.pdf.

Environmental Protection Authority (EPA) (2016). *Technical Guidance – Terrestrial Fauna Surveys.* Available from: https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/Tech%20guidance-%20Terrestrial%20Fauna%20Surveys-Dec-2016.pdf.

G. Harewood (2023), Fauna assessment, Boyanup Road West Stratham, received 12 June 2025.

Government of Western Australia (2019) *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. (2019) *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

Heddle, 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.

Leeuwin Civil Pty Ltd (2025) *Clearing permit application CPS 10997/1*, received 19 March 2025 (DWER Ref: DWERDT1101776).

Leeuwin Civil Pty Ltd (2025) *Supporting information for clearing permit application CPS 10997/1, Clearing permit letter,* received 19 March 2025 (DWER Ref: DWERDT1101774).

Mattiske, E.M. and Havel, J.J. (1998) *Vegetation Complexes of the South-west Forest Region of Western Australia.* Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.

Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68) *Atlas of Australian Soils*, Sheets 1 to 10, with explanatory data. CSIRO and Melbourne University Press: Melbourne.

Schoknecht, N., Tille, P. and Purdie, B. (2004) *Soil-landscape mapping in South-Western Australia – Overview of Methodology and output*s Resource Management Technical Report No. 280. Department of Agriculture.

Shah, B. (2006) *Conservation of Carnaby's Black-Cockatoo on the Swan Coastal Plain, Western Australia*. December 2006. Carnaby's Black-Cockatoo Recovery Project. Birds Australia, Western Australia.

Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) *Native Vegetation in Western Australia, Extent, Type and Status*. Resource Management Technical Report 249. Department of Agriculture, Western Australia.

Valentine, L.E. and Stock, W. (2008) *Food Resources of Carnaby's Black Cockatoo (Calyptorhynchus latirostris) in the Gnangara Sustainability Strategy Study Area*. Edith Cowan University and Department of Environment and Conservation. December 2008.

Western Australian Herbarium (1998). *FloraBase - the Western Australian Flora*. Department of Biodiversity, Conservation and Attractions, Western Australia. https://florabase.dpaw.wa.gov.au/ (Accessed 3 July 2025)