GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: CPS 11002/1

File Number: DWERVT18239

Duration of Permit: From 07 November 2025 to 07 November 2027

PERMIT HOLDER

Ms Dianna Ritchie and Mr Christian Ritchie

LAND ON WHICH CLEARING IS TO BE DONE

Lot 15 on Plan 8122, Wanneroo

AUTHORISED ACTIVITY

The permit holder must not clear more than 0.94 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

CONDITIONS

1. Type of clearing authorised

(a) The permit holder shall only clear the following vegetation within the area cross-hatched yellow in Figure 1 of Schedule 1:

(i) *termite infested vegetation,* as determined by an *arborist;* and

(ii) dead vegetation.

(b) Within two months of undertaking any clearing of *termite infested vegetation* identified under condition 1(a)(i) of this permit, the permit holder must provide the *arborist's* determination that the vegetation cleared is *termite infested vegetation* in a report to the CEO.

(c) The *arborist's* report provided under condition 1(b) must include the following:

(i) the location(s) of *termite infested vegetation* being cleared recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings or decimal degrees;

(ii) the species of *termite infested vegetation* being cleared;

(iii) the height from ground level of the *termite infested vegetation;* and

(iv) photograph(s) of the *termite infested vegetation*.

2. Clearing not authorised

The permit holder must not clear:

(a) *healthy Banksia* or *Eucalyptus* individuals; and

(b) *Banksia* or *Eucalyptus* individuals greater than 2 metres in height from ground level.

3. 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.

4. 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.

5. 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 GDA2020, expressing the geographical coordinates in Eastings and Northings; (c) the date that the area was cleared;

No.	Relevant matter	Specifications
		(d) the size of the area cleared (in hectares); (e) any *arborist* determination(s) that vegetation cleared under this permit is *termite infested vegetation* in accordance with condition 1*;* (f) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 3; and (g) actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with condition 4.

6. Reporting

The permit holder must provide to the *CEO* the records required under condition 5 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
arborist	means a person who holds the Australian Qualifications Framework Diploma in Horticulture (Arboriculture) or equivalent, and has specific work experience in arboriculture.
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.
fill	means material used to increase the ground level, or to fill a depression.
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.
EP Act	*Environmental Protection Act 1986* (WA)
healthy	means *native vegetation* that is vigorous and free of disease.
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.
termite infested vegetation	means any individual plant that has been determined by an *arborist* to be sufficiently impacted by termites such that the *arborist* has determined it

Term	Definition
	should be removed to prevent impacts to human health or safety.
weeds	means any plant – (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; 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

C Robertson
14.10.2025
4.59PM

Caron Robertson
MANAGER
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

14 October 2025

SCHEDULE 1

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

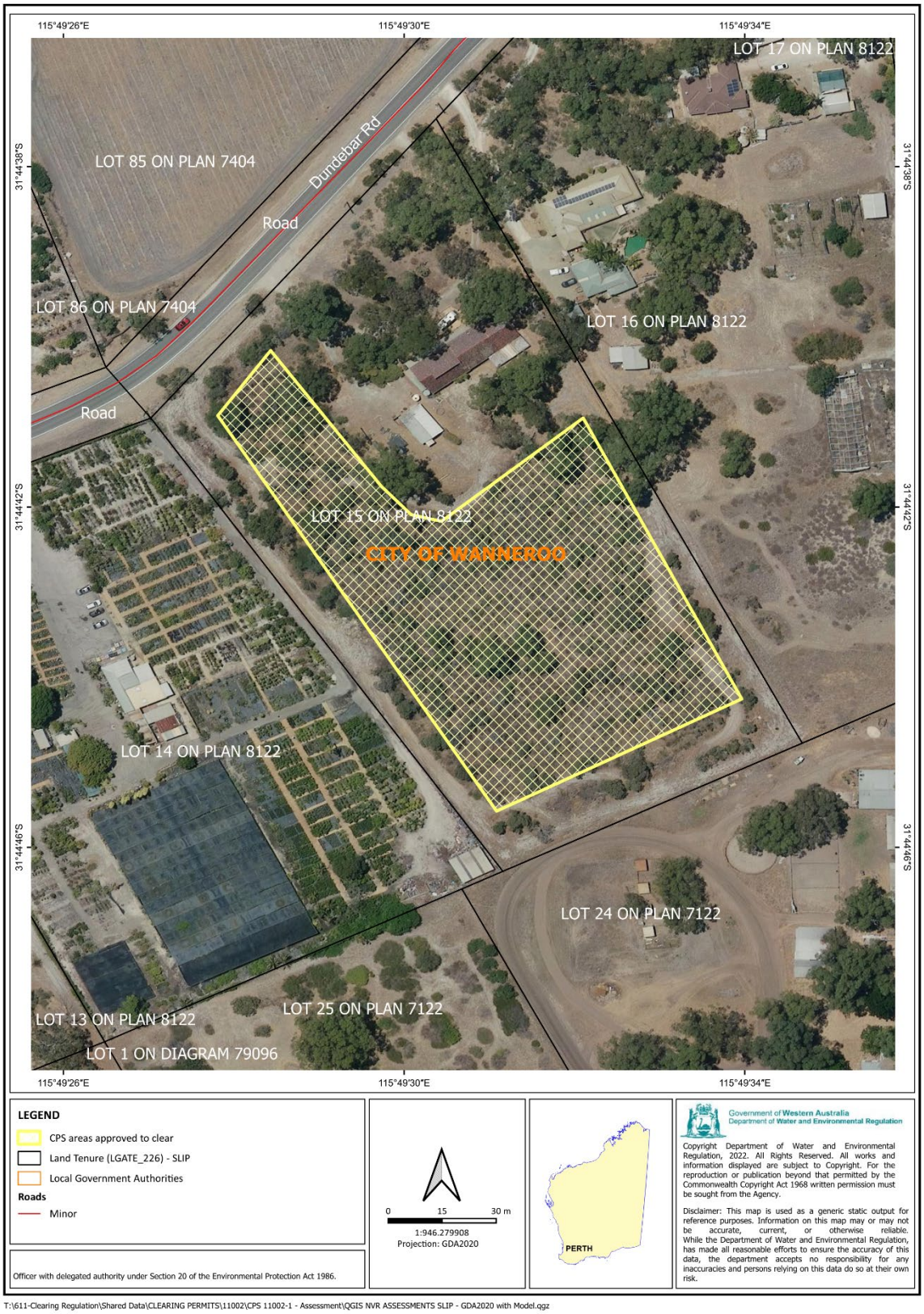

Figure 1: Map of the boundary of the area within which clearing may occur

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 11002/1
Permit type:	Area permit
Applicant name:	Ms Dianna Ritchie and Mr Christian Ritchie
Application received:	22 March 2025
Application area:	0.94 hectares of native vegetation
Purpose of clearing:	Hazard reduction
Method of clearing:	Mechanical
Property:	Lot 15 on Plan 8122
Location (LGA area/s):	Wanneroo
Localities (suburb/s):	Wanneroo

1.2. Description of clearing activities

The application is to selectively clear native vegetation infested by termites that presents a safety hazard, as well as dead vegetation, within a single contiguous area (see Figure 1, Section 1.5). The vegetation proposed to be cleared consists of termite infested casuarina trees, tree stumps and bushes. Conditions on the permit (discussed in Section 1.4 below) will limit clearing to termite infested vegetation and dead vegetation and will prohibit clearing of healthy *Banksia* and *Eucalyptus* individuals and *Banksia* and *Eucalyptus* individuals taller than 2 metres.

The applicant had originally proposed removing vegetation for the purposes of managing fire risk. However, following advice provided to the applicant that exemptions are available for the purpose of managing fire risk the purpose for clearing is more accurately described as clearing to manage safety hazards. The applicant agreed to conditions on the permit that limit clearing to termite infested vegetation and dead vegetation only.

1.3. Decision on application

Decision:	Granted
Decision date:	14 October 2025
Decision area:	0.94 hectares of native vegetation, as depicted in Section 1.5, below.

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (the department) 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 B),
- relevant datasets (see Appendix G.1),
- the findings of a site inspection (see Appendix F),
- the clearing principles set out in Schedule 5 of the EP Act (see Appendix C), and

- relevant planning instruments and any other matters considered relevant to the assessment (see Section 3).

The assessment identified that the application area:

- may contain suitable habitat for Priority 4 flora species *Jacksonia sericea*;
- contains habitat for Carnaby's cockatoo, forest red-tailed black cockatoo and quenda, and may contain habitat for other conservation significant fauna species; and
- is unlikely to contain conservation significant ecological communities.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined the proposed clearing is unlikely to lead to have long-term adverse impacts on the above values subject to clearing being limited by conditions on the permit (see below). The applicant has suitably demonstrated avoidance and minimisation measures.

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

- only clear termite infested vegetation, as determined by an arborist, and dead vegetation.
- no clearing of any healthy Banksia or Eucalyptus individuals; and any Banksia or Eucalyptus individual/s greater than 2 metres in height;
- avoid, minimise to reduce the impacts and extent of clearing; and
- take hygiene steps to minimise the risk of the introduction and spread of weeds.

1.5. Site map

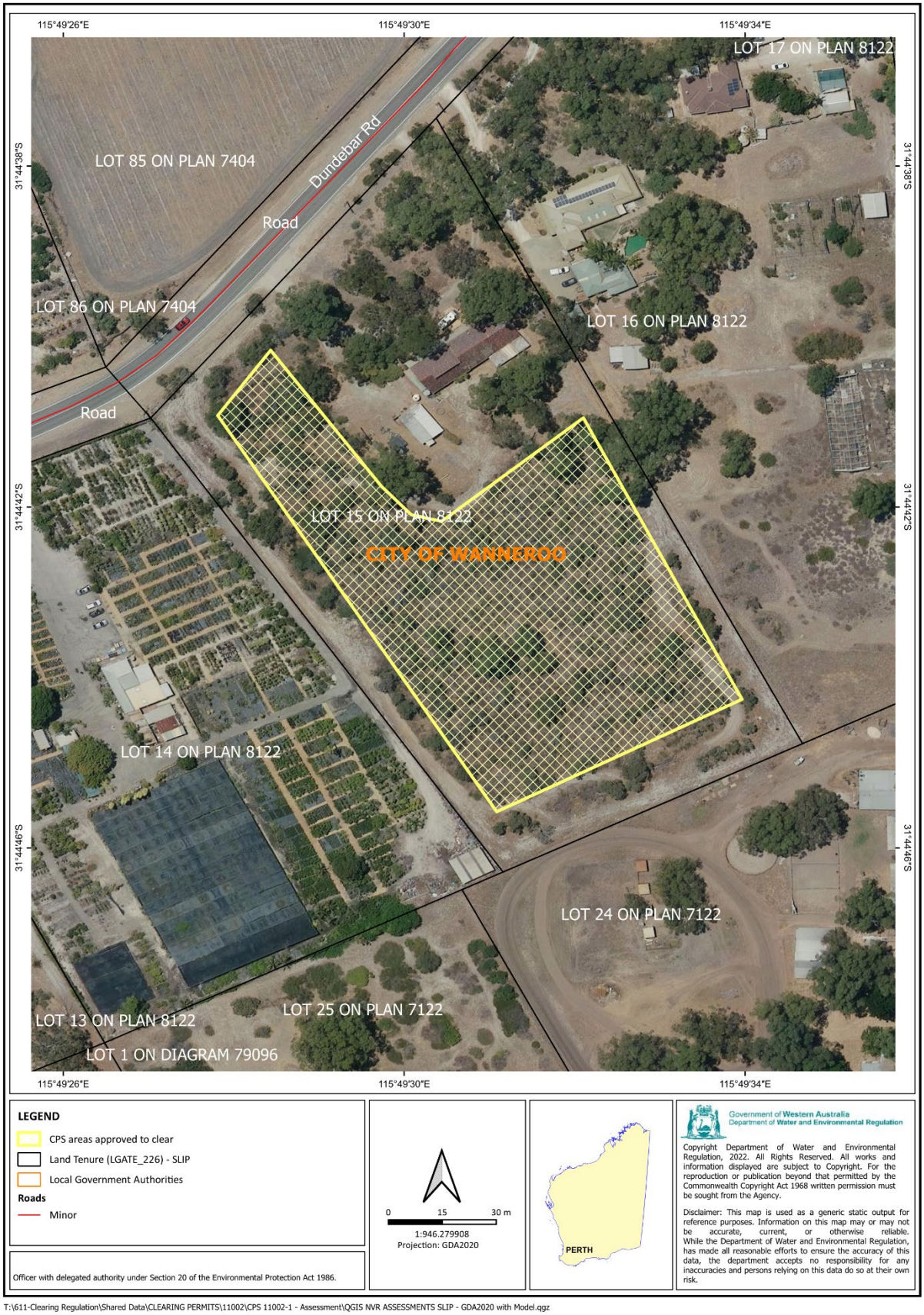

Figure 1. Map of the application area

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

2 Legislative context

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

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

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

Other legislation of relevance for this assessment include:

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

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

In their original application, the applicant advised the following avoidance and mitigation measures considered (Ritchie & Ritchie, 2025a):

- After careful evaluation, we have opted to retain the large, mature trees on the property, as they provide significant environmental benefits and enhance the aesthetic value of the area. However, to effectively manage the elevated bushfire risk in this region, it is essential to remove smaller, dead or declining trees. Additionally, we will clear areas of dense undergrowth, which can serve as fuel sources for bushfires. This approach ensures the preservation of the property's natural beauty and ecological health while prioritizing fire risk mitigation and enhancing the safety of the property and surrounding area
- Once the bushland has been removed, we will evaluate the possibility of planting new trees, ensuring they are adequately spaced to reduce fire hazards. Additionally, we will implement a weed management strategy utilising both manual and chemical methods to maintain the property.

The applicant advised that they could not completely avoid clearing as the vegetation is a significant fire risk to the house and neighbouring properties, in addition to the presence of a significant termite infestation that is being sustained through large areas of dead vegetation. The applicant stated that it is their intention to maintain the vegetation on the property into the future and they do not wish to completely clear it, just to manage the fire risk and termite infestations (Ritchie & Ritchie, 2025b). The applicant also advised that they only wish to clear unhealthy and dead vegetation under two metres in height as this will reduce the bushfire attack level (BAL) of the property and assist with managing a termite infestation on the property (Ritchie & Ritchie, 2025b).

During the assessment, in response to a request for further information, the applicant advised that they would retain healthy banksias and tuarts under two metres to ensure these significant habitat features are retained (Ritchie & Ritchie, 2025c).

Following discussions with the department during the assessment of this application, the applicant amended the purpose of clearing to safety hazard reduction and agreed to the following mitigation conditions being placed on the permit:

- clearing of termite infested vegetation and dead vegetation only; and
- no clearing of healthy *Banksia* and *Eucalyptus* individual/s or *Banksia* and *Eucalyptus* individual/s greater than 2 metres in height.

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 B) 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 C) identified that the impacts of the proposed clearing present a risk to biological values (fauna and ecological communities). 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 (flora) - Clearing Principle (a)

Assessment
According to available databases, 35 species of conservation significant flora have been recorded previously within the local area (10 kilometre radius from the application area). Based on the photographs provided by the applicant and a site inspection by DWER Officers, two species of conservation significant flora were identified as potentially occurring within the proposed clearing area namely, *Jacksonia sericea* (waldjumi) (Priority 4) and *Styphelia filifolia* (Priority 3).

Waldjumi is a low spreading shrub that produces orange flowers found in banksia or eucalyptus woodland and is often associated with disturbed areas such as roadsides (Florabase, 1998-). According to the WA Herbarium (Florabase, 1998-), there are 24 records of this species in the local area. Given the vegetation within the application area is suitable for this species and has been subject to disturbance over the years, waldjumi may be present within the proposed clearing area. No individuals were identified during a site inspection by DWER Officers; however, it was outside of the species flowering period which is over the summer. Noting that clearing under this permit will be limited to selective clearing of termite infested and dead individual plants, it is unlikely that the clearing will impact waldjumi.

Styphelia filifolia (P3) occurs sporadically from north of Eneabba to Harvey and grows on sandy soils of the coastal plain, usually in banksia or jarrah woodland in low lying situations (Florabase, 1998-). According to the WA Herbarium (Florabase, 1998-), there are three records of this species in the local area. While *S. filifolia* may have suitable habitat within the proposed clearing, it is noted that this species is only known to occur within Bassendean Sands System (Hislop & Puente-Lelievre, 2017) and the application is mapped within the Karrakatta Sand Yellow Phase, which is part of the Spearwood Dunes System. Therefore, the proposed clearing is not likely to contain *S. filifolia* as the soil is not suitable.

Conclusion
Based on the above assessment, and giving consideration to mitigation conditions limiting clearing to termite infested vegetation and dead vegetation, the proposed clearing is unlikely to impact conservation significant flora.

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

- clearing of termite infested vegetation and dead vegetation only.

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

Assessment
According to available databases, there are 45 species of conservation significant fauna recorded in the local area including 29 birds, four invertebrates, eight mammals and four reptiles. Due to the application's proximity to the coast, bird and reptile species associated with marine environments are not likely to occur within the application area.

Based on local records, photographs of the application area (Appendix E) and a DWER site inspection (Appendix F), the proposed clearing area is likely to contain suitable habitat for the following fauna species:

- black-striped snake (*Neelaps calonotos*) (P3),
- Carnaby's cockatoo (*Zanda latirostris*) (EN),
- forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*) (VU),
- graceful sunmoth (*Synemon gratiosa*) (P4),
- quenda (*Isoodon fusciventer*) (P4),
- Swan Coastal Plain shield-backed trapdoor spider (*Idiosoma sigillatum*) (P3),
- woolybush bee (*Hylaeus globuliferus*) (P3)

Black cockatoos
According to available mapping, the proposed clearing is located within the known breeding distribution of Carnaby's cockatoo (*Zanda latirostris*) and is within the known vagrant distribution for the forest red-tailed black cockatoo (FRTBC) (*Calyptorhynchus banksii naso*). While habitat requirements for these species of black cockatoos differ, the

requirements in general can be categorised as breeding habitat, foraging habitat and night roosting habitat. In the context of the application, the nearest Carnaby's cockatoo record is 0.52 km from the proposed clearing and the nearest FRTBC record is 1.31 km from the proposed clearing. According to available databases, there are 23 recorded black cockatoo breeding sites in the local area.

Breeding habitat

Suitable breeding habitat for black cockatoos includes some *Eucalyptus* species and marri trees which either have a suitable nest hollow or are of a suitable diameter at breast height (DBH) to develop a nest hollow (DAWE, 2022). Both species prefer to breed in woodland or forest but have been known to breed in partially cleared areas including isolated trees (DAWE, 2022).

Habitat trees considered potentially suitable for black cockatoo breeding generally have a DBH greater than 500 millimetres. Noting that only *Banksia* and *Eucalyptus* trees less than two metres tall (i.e. too small to be suitable for breeding) are to be cleared, and casuarina trees are not suitable for breeding for black cockatoo species, the proposed clearing is unlikely to impact upon black cockatoo breeding habitat.

Foraging

Black cockatoo species are noted to forage on a range of plant species, with the primary foraging resources varying between species (DAWE, 2022). The proposed clearing area contains *Banksia* spp. which are a primary foraging species for Carnaby's cockatoo, as well as tuart trees and sheoak trees, which are a secondary foraging species for Carnaby's cockatoo and forest red-tailed black cockatoo (DAWE, 2022 and Bancroft and Bamford, 2023). Food resources within the range of roosting and breeding sites are important to sustain populations of black cockatoos, and foraging resources should therefore be viewed in the context of the proximity to the known night roosting and breeding sites to the application area. Black cockatoos will generally forage up to 12 km from an active breeding site. Following breeding, they will flock in search of food, usually within six kilometres of a night roost (DAWE, 2022). Available databases indicate that there are 23 known breeding sites and 43 known roosting sites in the local area, including one record within the proposed clearing area, and therefore, the vegetation within the application area is likely to provide foraging resources for nearby roosting and breeding populations.

Considering the above, the application area provides significant foraging habitat for Carnaby's cockatoo, and secondary foraging habitat for forest red-tailed black cockatoo. Mitigation measures, applied as conditions on the clearing permit are sufficient to reduce the impact of clearing to a point where the impact is not like to be significant to the continuance of the population at this location.

Roosting

Black cockatoo night roosts are usually located in the tallest trees, typically *Eucalyptus* species or marri, in an area, and near both a food supply and surface water (DAWE, 2022). Although there is a recorded roost site within the application area, given the proposed clearing will not allow clearing of *Eucalyptus* individuals below two metres in height, the proposed clearing is not likely to remove roosting trees for black cockatoos. As foraging habitat will not be significantly impacted by the clearing, the clearing is unlikely to impact the ability of trees within the application area to be used as a roost.

Other species

The application area may also provide habitat for the following conservation significant fauna species, noting their preferred habitats:

- **Quenda** (*Isoodon fusciventer*) require a dense understorey for cover and are often found digging in leaf litter for invertebrates, earthworms, beetles and plant material, generally inhabiting dense understorey vegetation of forests, woodlands, shrubland and heathland (DBCA, 2017). A site inspection by DWER Officer's in May 2025, did not identify any individuals of quenda, however, did observe secondary evidence in the form of diggings throughout the application area (see Appendix F). Additionally, based on the photographs provided by the applicant (Appendix E) and from the site inspection, the dense understorey vegetation is likely to be core habitat for quenda.
- The **graceful sunmoth** (*Synemon gratiosa*) is known to occur in disjunct populations from Kalbarri to Binningup (GIS Database). The larvae of the species feed only on *Lomandra hermaphrodita* and *Lomandra maritima* (Bishop et. al, 2010).
- The **Swan Coastal Plain shield-backed trapdoor spider** (*Idiosoma sigillatum*) is associated with banksia woodland and heathland in sandy soils on the Swan Coastal Plain and is largely restricted to bushland remnants in the Greater Perth region (Rix et al., 2018).

- The **woolybush bee** (*Hylaeus globuliferus*) is known to be associated with *Adenanthos cygnorum* (woolybush) and *Banksia* species (Houston, 2018), with records present from Arrowsmith in the northwest to Fitzgerald River National Park in the southeast.

Noting that the application area is an urban remnant with significant weed invasion in the understorey and is separated from other areas of suitable habitat by road infrastructure and previously cleared farmland, it is considered unlikely that the application area represents significant habitat for the abovementioned fauna or would be necessary for the ongoing maintenance of these species in the region. Furthermore, noting that clearing is limited to selective clearing of termite infested vegetation and dead vegetation, the clearing is unlikely to significantly alter habitats for the above species.

Conclusion

Based on the above assessment, the proposed clearing is unlikely to significantly impact habitat for Carnaby's cockatoo and FRTBC or other conservation signifciant fauna species, subject to conditions on the clearing restricting the clearing to termite infested vegetation, dead vegetation and *Banksia* or *Eucalyptus* individual/s; and *Banksia* or *Eucalyptus* individual/s no greater than 2 metres in height.

Conditions

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

- The permit holder shall only clear termite infested vegetation, as determined by an arborist, and dead vegetation.
- The permit holder must not clear healthy *Banksia* or *Eucalyptus* individual/s; and *Banksia* or *Eucalyptus* individual/s greater than 2 metres in height.

3.2.3. Biological values (ecological community) - Clearing Principles (a) and (d)

Assessment

The preliminary assessment identified that the proposed clearing is mapped within the "Banksia Woodlands of the Swan Coastal Plain ecological community" (Banksia Woodlands) which is listed as a Priority 3 priority ecological community (PEC) in Western Australia and as an endangered threatened ecological community (TEC) under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Additionally, the "Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain" (Tuart Woodlands) which is also a Priority 3 PEC in Western Australia and is listed as Critically Endangered under the EPBC Act, is recorded approximately 0.08 km from the proposed clearing.

The Banksia Woodlands PEC/TEC is characterised by a prominent layer of Banksia species with other trees such as eucalypts either amongst or emerging above the Banksia canopy and a rich understorey (DoEE, 2016). This community is considered significant due to its capacity to support a diverse range of fauna and flora species (DoEE, 2016). Photographs of the proposed clearing area and a site inspection undertaken by Department Officer's, noted the vegetation within the proposed clearing area meets the basic structural elements of this community, based on the conservation advice (DoEE, 2016), including co-dominance of *Banksia attenuata* and *Banksia menziesii* and an emergent layer of sheoak (*Allocasuarina fraseriana*).

The conservation advice for the Tuart PEC/TEC notes that structure of the community can vary greatly depending on factors such as rainfall, soil nutrients, landscape position, historical land use etc., but is generally characterised by an upper canopy of tuart, most commonly in woodlands or forests, but can occur in mallee formations (DoEE, 2019). Photographs of the application area and a site inspection by Department Officer's identified tuart trees within the proposed clearing area (See Appendix E and F), near the existing house.

The Department's site inspection noted that the vegetation ranged from degraded to very good (Keighery, 1994) condition, due to significant weed invasion from surrounding farmland and a neighbouring plant nursery. Both the Banksia Woodlands and Tuart Woodlands PEC/TECs have certain criteria to be considered part of their communities, namely related to patch size. To be considered the Banksia Woodlands PEC/TEC, the vegetation is assessed against the highest quality vegetation, in this case the very good (Keighery, 1994) condition and the patch size must be at least one hectare in size (DoEE, 2016). The area of the Banksia Woodland on the property broadly aligns with the proposed clearing area, which is less than a hectare, meaning the vegetation is not representative of the PEC/TEC. The Tuart Woodlands PEC/TEC, does not have the same vegetation condition thresholds as the Banksia Woodlands, however, states that any patches less than 0.5 hectares is not considered to be the community (DoEE, 2019). While Tuart trees were observed in the north-eastern section of the property near the house, the extent is well below the 0.5-hectare patch minimum.

Furthermore, noting mitigation conditions on the permit which only allow the permit holder to clear termite infested or dead vegetation, and prohibiting the clearing of healthy *Banksia* or *Eucalyptus* individuals and *Banksia* or *Eucalyptus* individuals greater than 2 metres tall, the clearing is considered unlikely to significantly impact the ecology of *Banksia* dominated and tuart dominated areas of vegetation within the application area.

Conclusion
Based on the above assessment, the proposed clearing is not likely to result in the loss of vegetation representative of a priority or threatened ecological community.

Conditions
No ecological community management conditions required.

3.3. Relevant planning instruments and other matters

The City of Wanneroo (2025) advised the Department that local government approvals are not required, and that the proposed clearing is consistent with the City's Local Planning Scheme. The City did not have any objections to the proposed clearing.

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

End

Appendix A. Additional information provided by applicant

Summary of comments	Consideration of comment
Response to request for further information for additional avoidance and mitigation measures (Ritchie & Ritchie, 2025c)	See Section 3.1 Avoidance and mitigation measures

Appendix B. Site characteristics

B.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is an isolated patch of native vegetation in the intensive land use zone of Western Australia. It is surrounded by semi-rural and urban areas. Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 22.34 per cent of the original native vegetation cover.
Ecological linkage	The proposed clearing area is not mapped within a formal ecological linkage. The nearest ecological linkage is located approximately 0.36 km from the proposed clearing, associated with the Perth Regional Ecological Linkages dataset and Gnangara Ecological Linkages dataset.
Conservation areas	The proposed clearing is not mapped within a conservation area. There are three conservation areas within one kilometre of the application, namely: • Bush Forever 470 – 0.57 km • Bush Forever 471 – 0.59 km • Bush Forever 324 (Lake Jandabup Nature Reserve) – 0.92 km
Vegetation description	Supporting information and photographs supplied by the applicant, and a DWER site inspection indicate the vegetation within the proposed clearing area consists of banksia spp. woodland with some tuart and dense understorey vegetation. Representative photos and the supporting information are available in Appendix E and Appendix F. This is consistent with the mapped vegetation type(s): • Karrakatta Complex-Central and South 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 (Government of Western Australia, 2019). The mapped vegetation type retains approximately 23.49 per cent of the original extent (Government of Western Australia, 2019).
Vegetation condition	Photographs supplied by the applicant and a DWER site inspection indicate the vegetation within the proposed clearing area is in degraded to very good (Keighery, 1994) condition. The full Keighery (1994) condition rating scale is provided in Appendix D. Representative photos are available in Appendix E and Appendix F.
Climate and landform	The region experiences a mediterranean climate with cool winters and hot summers with a mean annual rainfall of 970 millimetres. Landform within the application area is described as undulating dunes.
Soil description	The soil is mapped as the Karrakatta Sand Yellow phase, which is described as, low hilly to gently undulating terrain. Yellow sand over limestone at 1-2 m. Banksia spp. woodland with scattered emergent *E. gomphocephala* and *E. marginata* and a dense shrub layer.
Land degradation risk	The mapped soil type has a high to extreme risk of land degradation from wind erosion, high risk of sub-surface acidification and is not likely to be at risk of salinity and phosphorous export.
Waterbodies	The desktop assessment and aerial imagery indicated that no waterbodies transect the area proposed to be cleared. The nearest natural waterbody is Jandabup Lake which is located approximately 0.63 km from the application.
Hydrogeography	The proposed clearing is located within the Wanneroo groundwater area as proclaimed under the RIWI Act. The mapped soils are not at high risk of water erosion, waterlogging or flooding.

Characteristic	Details
Flora	According to available databases, there are 123 records across 35 species of conservation significant flora in the local area (10-kilometre radius), composed of 28 Priority species and seven (7) threatened species. None of the records were mapped within one kilometre of the proposed clearing area.
Ecological communities	According to available databases, there are six (6) threatened and priority ecological communities in the local area (10-kilometre radius). One community, the "Banksia Woodlands of the Swan Coastal Plain ecological community" (Banksia Woodlands), is mapped within the proposed clearing area. The "Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain" (Tuart Woodlands) ecological community is mapped in proximity to the proposed clearing, approximately 0.08 km away. Both the Banksia Woodlands and Tuart Woodlands are listed as Priority 3 by DBCA. Both communities are also listed as threatened under the EPBC Act with the Banksia Woodlands being listed as Endangered and the Tuart Woodlands being listed as Critically Endangered.
Fauna	According to available databases, there are 1444 records across 45 species of conservation significant fauna in the local area (10-kilometre radius), two of which have been recorded within one kilometre of the proposed clearing, namely: • Carnaby's cockatoo (*Zanda latirostris*) (EN) - 0.52 km, and • Australian little bittern (*Botaurus dubius*) (P4) – 0.61 km There are 43 known black cockatoo roosting sites within the local area, including one which is recorded within the proposed clearing area. 23 known black cockatoo breeding sites are recorded within the local area, the nearest being 2.60 km away.

B.2. 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)	Are surveys adequate to identify? [Y, N, N/A]
Calyptorhynchus banksii naso (forest red-tailed black cockatoo)	VU	Y	Y	1.31	23	N/A
Hylaeus globuliferus (woolybush bee)	P3	N	Y	6.89	9	N/A
Idiosoma sigillatum (Swan Coastal Plain shield-backed trapdoor spider)	P3	N	Y	2.19	23	N/A
Isoodon fusciventer (quenda)	P4	Y	Y	1.54	248	N/A
Neelaps calonotos (black-striped snake)	P3	N	Y	2.21	20	N/A
Synemon gratiosa (graceful sunmoth)	P4	N	Y	2.39	69	N/A
Zanda latirostris (Carnaby's cockatoo)	EN	Y	Y	0.52	753	N/A
Zanda sp. 'white-tailed black cockatoo' (white-tailed black cockatoo)	EN	Y	Y	6.92	12	N/A

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

B.3. Ecological community analysis table

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 (total)	Are surveys adequate to identify? [Y, N, N/A]
Banksia Woodlands of the Swan Coastal Plain ecological community	P3 (DBCA) EN (EPBC Act)	N	Y	Y	0.00	911	N/A
Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain	P3 (DBCA) CR (EPBC Act)	N	Y	Y	0.08	93	N/A

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

Appendix C. 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 area proposed to be cleared may contain significant flora, and contains habitat for conservation significant fauna species.	May be at variance	Yes *Refer to Section 3.2.1 and 3.2.2, above.*
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 area proposed to be cleared contains significant foraging habitat for Carnaby's cockatoo.	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. Many of the nearby records are associated with a local plant nursery, outside of their known ranges and the high weed load of the understorey is unlikely to support populations of 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 proposed clearing area is mapped as the 'Banksia Woodlands of the Swan Coastal Plain ecological community' (Endangered) threatened ecological community (TEC) under the EPBC Act, however vegetation is not likely to meet the criteria to be considered a patch of the TEC.	Not likely to be at variance	Yes *Refer to Section 3.2.2, above.*

Assessment against the clearing principles	Variance level	Is further consideration required?
The vegetation also contains species indicative of the "Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain" (Critically Endangered) TEC under the EPBC Act, however, is not likely to meet the criteria to be considered part of the TEC.		
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 local area and mapped vegetation type has a remnant vegetation cover of less than 30 per cent, which is inconsistent with the national objectives and targets for biodiversity conservation in Australia. However, noting that the application area lies within a constrained area of the Perth Metropolitan Regional Scheme, within which a minimum 10 per cent representative threshold is recommended (EPA, 2008), the vegetation is consistent with the targets for a constrained area.	At variance	No
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 distance to the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.	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: Given no water courses or wetlands are recorded within the application area, the proposed clearing is unlikely to impact on- 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: The mapped soils are highly susceptible to wind erosion and subsurface acidification. Noting the extent and location of the application area, in addition to the fact that not all of the vegetation will be cleared, the proposed clearing is not likely to have an appreciable impact on land degradation.	Not likely to be at variance	No
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: Given no water courses or wetlands are recorded within the application area, the proposed clearing is unlikely to impact surface or ground water quality. The mapped soil is not at high risk of water erosion or waterlogging.	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:	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
The mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding. Given no water courses or wetlands are recorded within the application area, the proposed clearing is unlikely to contribute to waterlogging.		

Appendix D. 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 E. Photographs of the vegetation (Ritchie and Ritchie, 2025b)

Termite infested trees removed for safety reason next to dwelling.

Termite infested tree.

Termite infested stump.

Another one of many Termite infested trees.

Thick shrubbery.

Dead trees, stumps and thick shrubbery.

Termite infested tree, with dead and falling branches.

Termite Infested tree with thick shrubbery.

Heavy Fuel loads on the floor with dead shrubbery.

Trees at the base of the power poles with dry litter at the base.

Old Fencing with thick and dead shrubbery.

Termite infested stump.

Termite infested stump.

Leaf litter build-up of an area that has previously been cleared.

Leaf litter build-up of an area that has previously been cleared.

Appendix F. DWER site inspection photographs (DWER, 2025)

Photograph 1 – Photograph of a termite infested tree stump at the front of the property

Photograph 2 – Photograph of the degraded vegetation behind the house, with some tuart trees.

Photograph 3 – Banksia spp. Observed, likely *B. attenuata*

Photograph 4 – multiple quenda diggings observed within completely degraded section of the vegetation

Photograph 5 – Good quality vegetation with weed infestation on the eastern side of the property

Photograph 6 – More good condition vegetation showing dominance of banksia spp.

Photograph 7 – flowering *B. menziesii* observed. This species was common and flowering across the property

Photograph 8 – degraded vegetation at the back of the property.

	
Photograph 9 – degraded to good condition vegetation behind the house. The weeds at the front are closer to the house.	**Photograph 10 –** Tuart trees observed next to the house.

Appendix G. Sources of information

G.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)
- 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

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)

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