GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: CPS 10785/1

File Number: DWERVT16567

Duration of Permit: From 25 May 2025 to 25 May 2030

PERMIT HOLDER

Shire of Dardanup

LAND ON WHICH CLEARING IS TO BE DONE

Cudliss Road reserve (PIN 1304648)

Eaton Drive Road reserve (PIN 495893)

AUTHORISED ACTIVITY

The permit holder must not clear more than 17 native trees within the areas cross-hatched yellow in Figure 1 of Schedule 1.

CONDITIONS

1. 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.

2. 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.

3. Revegetation and rehabilitation - Mitigation

(a) Within 12 months following completion of clearing authorised under this permit, the permit holder must undertake the deliberate *planting* of at least 30 *Corymbia calophylla* (marri) seedlings within the area cross-hatched red in Figure 2 Schedule 1, within Eaton Drive Road reserve (PIN 495893) and Cudliss Road Reserve (PIN 1304648), ensuring:

(i) only *local provenance* propagating material is used;

(ii) planting is undertaken at the *optimal time*;

(iii) the ground is ripped prior to planting to remove soil compaction;

(iv) *weed* control activities are undertaken prior to planting, and annually thereafter for a period of three years; and

(v) watering of *plantings* is undertaken for at least three years post *planting* as required.

(b) the permit holder must, within 24 months of *planting* the native plants in accordance with *condition* 3(a) of this permit:

(i) engage an *environmental specialist* to make a determination that at least 30 individuals of *Corymbia calophylla* (marri) will survive within the area cross-hatched red in Figure 2 of Schedule 1;

(ii) if the determination made by the *environmental specialist* under *condition* 3(b)(i) is that at least 30 *Corymbia calophylla* (marri) will not survive, the permit holder must plant additional seedlings that will result in at least 30 *Corymbia calophylla* (marri) persisting within the area cross-hatched red in Figure 2 of Schedule 1; and

(iii) where additional planting of native seedlings is undertaken in accordance with *condition* 3(b)(ii), the permit holder must repeat the activities required by *condition* 3(a)(i-v) and 3(b)(i-ii) of this permit.

4. 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	(a) the species composition, structure, and

No.	Relevant matter	Specifications
	authorised *clearing* activities generally	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), 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); and (e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with *condition* 1; and (f) actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with *condition* 2.
2.	In relation to *revegetation* and *rehabilitation* pursuant to *condition* 3	(a) the date(s) that *revegetation* and *rehabilitation* occurred; (b) the boundaries of the area(s) *revegetated* and *rehabilitated* (recorded digitally as a shapefile); (c) description of the *revegetation* and *rehabilitation* activities undertaken, including actions taken to implement watering and *weed* control; (d) a copy of the *environmental specialist's* monitoring report and determination, pursuant to condition 3(b)(i); and (e) a description of any remedial actions undertaken pursuant to condition 3(b) (ii-iii).

5. Reporting

The permit holder must provide to the *CEO* the records required under *condition* 4 of this permit when requested by the *CEO*.

DEFINITIONS

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

Table 2: Definitions

Term	Definition
CEO	Chief Executive Officer of the *department* responsible for the administration of the clearing provisions under the *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
local provenance	means native vegetation seeds and propagating material from natural sources within 50 kilometres and the same IBRA subregion of the area cleared.
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
optimal time	means the period from May to June for undertaking planting and seeding.
planting	means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species.
rehabilitate/ed/ion	means actively managing an area containing *native vegetation* in order to improve the ecological function of that area using methods such as natural regeneration, direct seeding and/or planting, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.
revegetate/ed/ion	means the re-establishment of a cover of local provenance *native vegetation* in an area using methods such as natural regeneration, direct seeding and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.
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

C. Robertson
30.04.2025
1.41PM

Caron Robertson
A/Manager
NATIVE VEGETATION REGULATION

SCHEDULE 1

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

Figure 2: Map of the boundary of the area subject to *condition* 3

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 10785/1
Permit type:	Area permit
Applicant name:	Shire of Dardanup
Application received:	2 October 2024
Application area:	17 native trees
Purpose of clearing:	Road upgrades
Method of clearing:	Mechanical clearing
Property:	Cudliss Road reserve (PIN 1304648) Eaton Drive Road reserve (PIN 495893)
Location (LGA area/s):	Shire of Dardanup
Localities (suburb/s):	Eaton

1.2. Description of clearing activities

The vegetation proposed to be cleared is distributed across four separate areas within Cudliss Road and Eaton Drive Road reserves (see Figure 1, Section 1.5). The purpose of the application is for road upgrades to improve the safety of Eaton Drive intersection.

1.3. Decision on application

Decision:	Granted
Decision date:	30 April 2025
Decision area:	17 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 B), relevant datasets (see Appendix F.1), the clearing principles set out in Schedule 5 of the EP Act (see Appendix C), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3). The Delegated Officer also took into consideration the purpose of the clearing is to improve community safety through improving sightlines at an intersection providing a public benefit.

The assessment identified that the proposed clearing would result in:

- the loss of 15 trees which provides suitable foraging habitat for three species of threatened black cockatoo.

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 appreciable land degradation and 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 mitigation revegetation reduces the impacts to black cockatoo foraging habitat to a point where there is no significant residual impact and therefore offsets are not required (see Section 4).

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

- avoid, minimise to reduce the impacts and extent of clearing,
- implement hygiene measures to minimise the risk of introducing and spreading weeds and
- undertake revegetation using species suitable for black cockatoo foraging.

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.

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

The Delegated Officer is satisfied that avoidance and mitigation measures submitted by the applicant are appropriate.

Avoidance and minimisation
Initial road designs considered by council (see Figure 2a, b & c) had a larger environmental footprint, including impacts to Hands Creek. The proposed road design reducesthe environmental impact and allows for closure of part of the existing Hands Avenue intersection, allowing for mitigation planting on site. This Shire have considered the location of mitigation revegetation to maximise connectivity in the local area by targeting the connection of patches current dissected by road ways. (see Figure 2c)

Figure 2a: Original design concept

Figure 2b: Modified design concept

Figure 2c: Corridor identified for targeted mitigation revegetation

Mitigation
The applicant proposed mitigation revegetation within Cudliss Road reserve (PIN 1304648) and Eaton Drive Road reserve (PIN 495893), (see Figure 3). Within the revegetation area, the applicant has agreed to plant a minimum of 30 Marri trees *(Corymbia calophylla)* in addition to the existing proposal to plant and maintain a range of endemic species including the following (Shire of Dardanup, 2025):

Upper canopy

- *Agonis flexuosa*
- *Melaleuca rhaphiophylla*
- *Corymbia callophylla*
- *Eucalyptus utilis*

Middle story

- *Callistimon sp*
- *Acacia sp* (local species only)
- *Baumea sp*
- *Eremophila sp*
- *Hakea sp*

Lower story

- *Juncas sp*
- *Hardenbergia sp*
- *Kenedia sp*
- *Conostylis sp*
- *Carex sp*
- *Ficinia sp*

Based on the information above, 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 through road design principles. The Delegated Officer determined that after the application of the avoidance and minimisation measures the following impacts remained:

- Loss of 0.15 hectares (15 trees) of native vegetation which provides moderate to high quality foraging for three black cockatoo species.

To reduce the environmental impacts remaining after avoidance and minimisation measures, mitigation revegetation with species suitable for black cockatoo foraging at a rate of 2:1 is sufficient to reduce the environmental impact such that no significant residual impacts remain and no offsets are required.

The Delegated Officer determined to condition planting of 30 marri trees within the area crosshatched red (see Figure 3) on the clearing permit for mitigation revegetation.

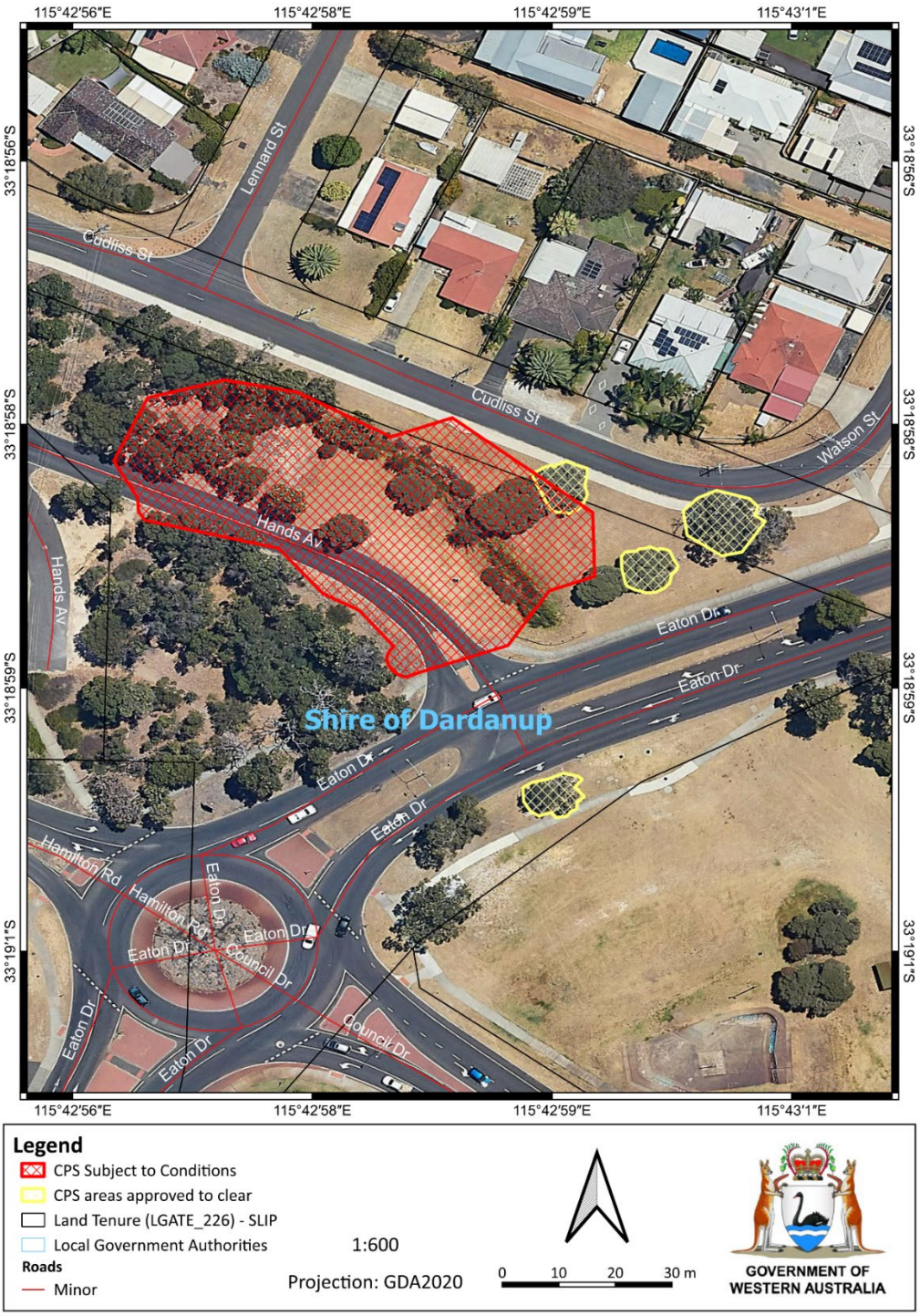

Figure 3: Location of the revegetation area (cross-hatched red), in relation to the application area for CPS 10785/1 (cross-hatched yellow)

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). The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

3.2.1. Biological values (Fauna and ecological linkage) - Clearing Principles (a, b & e)

Assessment

The application area is located within the Swan Coastal Plain interim biogeographic regionalisation for Australia (IBRA) region of Western Australia. According to available databases, 60 conservation significant fauna species have been recorded within the local area (10-kilometre radius of the application area). Of these species, eight have habitat features represented within the application area.

Based on the date of each record, preferred habitat types, the proximity of records to the application area, the type and condition of the vegetation within the application area, it is considered that the application area comprises suitable habitat for five conservation significant fauna species. These species include:

- *Zanda latirostris* (Carnaby's cockatoo), listed as endangered under the Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act)
- *Zanda baudinii* (Baudin's cockatoo), listed as endangered under the EPBC Act
- *Calyptorhynchus banksii naso* (forest red-tailed black cockatoo), listed as vulnerable under the EPBC Act
- *Pseudocheirus occidentalis* (western ringtail possum), listed as critically endangered under the EPBC Act
- *Dasyurus geoffroii (*chuditch, western quoll*),* listed as vulnerable under the EPBC Act
- *Phascogale tapoatafa wambenger (*south-western brush tailed phascogale, Wambenger), listed as conservation dependant under the EPBC Act

Black cockatoo

The application area is within the distribution for all three black cockatoo species; Carnaby's cockatoo, Baudin's cockatoo and forest red-tailed black cockatoo, and is mapped as black cockatoo foraging habitat.

Foraging habitat

Black cockatoos are known to forage on a range of plant species, with the primary foraging resources varying among the three species (DAWE, 2022). Carnaby's cockatoos forage on the seeds, nuts, and flowers of a variety of plants, including Proteaceous species (such as Banksia, Hakea, and Grevillea), as well as Allocasuarina, Eucalyptus, *Corymbia calophylla* (marri), and a range of introduced species (Valentine and Stock, 2008). Baudin's cockatoos primarily feed on the seeds of marri, but may also forage on the seeds of *Eucalyptus marginata* (jarrah) and proteaceous species (DEC, 2008). Forest red-tailed black cockatoos feed predominantly on the seeds of marri and jarrah, which comprise approximately 90 per cent of their diet (DEC, 2008).

The extent of the native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia in constrained areas where a 10 per cent retention target is applied. The vegetation within the application area is mapped as black cockatoo foraging habitat. Photographs provided by the applicant (see Appendix E) identified marri to be the dominant tree species within the application area (15 of 17 trees). Given that this is a primary food source for all three black cockatoo species and noting the proximity to permanent water sources and known roosting sites, the removal of 15 trees suitable for foraging is likely to impact black cockatoos foraging within the local area.

Breeding habitat

Suitable breeding habitat for black cockatoos includes 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). Suitable breeding habitat consists of both live and dead *Eucalyptus* and *Corymbia* species with a DBH of 500 millimetres. Given the small diameter of the trees in the application area, based on a visual assessment of the photographs, it is unlikely that the vegetation within the application area provides breeding habitat for Black cockatoos.

Night Roost sites

Black cockatoo night roosts are usually located in the tallest trees of an area, and in close proximity to both a food supply and surface water (DAWE, 2022). Known night roosting species include jarrah, marri, karri, flooded gum, blackbutt, tuart, salmon gum, wandoo and introduced eucalyptus (DAWE, 2022). Within the local area, there are 12 known roost sites, with the closest mapped 1.3 kilometres from the application area. The marri trees within the application area are the tallest in the immediate vicinity however the poor canopy condition of the trees is such that the value of the trees for night roosting is not likely to be significant to local populations.

Western ringtail possum

The western ringtail possum (*Pseudocheirus occidentalis*) (WRP) is a small arboreal nocturnal marsupial listed as critically endangered under the EPBC Act. According to the western ringtail possum recovery plan (DPaW, 2017) there are three key management zones for the species: the Swan Coastal Plain, Southern Forest and South Coast zones, which are known to currently or previously support large numbers of the species. Commonly these management zones include habitats with high nutrient foliage availability for food, suitable structure for protection and nesting, as well as canopy continuity to avoid and escape predation and other threats. Critical WRP habitat on

the SCP consists of vegetation that is long unburnt mature remnants of *Agonis flexuosa* (peppermint) woodlands with high canopy continuity and high foliage nutrients; jarrah / marri forests and woodlands with limited anthropogenic disturbance (unlogged or lightly logged, and a low intensity and low frequency fire history) that are intensively fox-baited and have low indices of fragmentation (DAWE, 2022). There are a number of threatening processes impacting the WRP including habitat loss and fragmentation, introduced predators, climate change, timber harvesting, fire, hollow competition, habitat tree declines and disease.

Within the local area there are 1663 records of WRP, with the nearest record mapped 280 metres from the application area within bushland associated with Ferguson River. While the application area is absent of peppermint trees, it does contain marri which is also suitable habitat for the western ringtail possum.

Based on the habitat preferences of the WRP, the application area is not likely to represent critical habitat for the species despite the presence of marri, given that application area is within heavily disturbed roadside vegetation with little canopy and habitat connectivity.

South-western brush-tailed phascogale

The south-western brush-tailed phascogale (*Phascogale tapoatafa wambenger*) is a nocturnal arboreal *Dasyurid*, associated with dry sclerophyll forests and open woodlands that contain hollow-bearing trees, characterised by high canopy cover and connectivity (DEC, 2012). The brush-tail phascogale is an opportunistic hunter, predominantly preying upon insects, small mammals, birds, and lizards. Like black cockatoos and the western ringtail possum, the brush-tail phascogale relies upon tree hollows for nesting during the breeding season and commonly competes with the ringtail possum for hollow space, often evicting the ringtail possum from optimal hollows (DEWHA, 2009). Available databases show 49 records of south-western brush-tailed phascogale within the local area, with the closest record 1.8 kilometres from the application area. Although the application area provides vegetation that is suitable habitat for the phascogale, the extent of disturbance and lack of canopy and connectivity are such that it is unlikely to be significant habitat for phascogales.

Chuditch

The chuditch, or Western quoll, (*Dasyurus geoffroii*), is the largest carnivorous marsupial occurring in Western Australia. It is largely restricted to southwest Western Australia and is listed as vulnerable under the EPBC Act. The chuditch primarily inhabits jarrah forests and woodlands, mallee shrublands, and heathlands. Their home ranges extend up to 15 square kilometres for males and 3 to 4 square kilometres for females. They are dependent on an adequate number of suitable dens and refuge sites, which are typically found in hollow logs, tree limbs, rocky outcrops and burrows. They also require a sufficient prey biomass (large invertebrates, reptiles and small mammals) to survive (DAWE, 2017b). Available datasets show 2 records of chuditch within the local area, with the closest record two kilometres from the application area. Based on photos supplied by the applicant (Appendix E), the trees within the application area do not contain suitable hollows for this species.

Ecological Linkage

The vegetation in the application area is mapped within the Bunbury Regional Scheme ecological linkage (EPA, 2003). The vegetation within the application area has been significantly altered and is in completely degraded (Keighery, 1994) condition.

The vegetation within the application area comprising semi mature marri and melaleuca trees with unconnected canopy. No understory vegetation is present within the application area. The ecological function and services provided by the vegetation within the application area are likely to be limited to being stepping stone habitat for avifauna and is not likely to provide critical ecosystem services beyond that provided by nearby vegetation.

Conclusion

Based on the above assessment, the proposed clearing will result in the loss of 15 marri trees suitable for black cockatoo foraging habitat which is likely to contribute to a cumulative impact on resources available to local populations. The application area consists of suitable low-quality habitat for western ringtail possums, phascogale and chuditch however given the condition of the vegetation and absence of preferred habitat features (i.e. canopy connectivity), the habitat is not significant for the continuance of these species in the local area.

Conditions

To address the above impacts to foraging habitat and ecological linkage values, the following management measures are included as conditions on the clearing permit:

- Revegetation of a minimum of 30 *Corymbia calophylla* trees (see Section 3.1) for the significant impacts of the loss 15 marri trees providing significant foraging habitat for three black cockatoo species and the ecological value these trees provide to an ecological linkage.

3.3. Relevant planning instruments and other matters

The Shire of Dardanup advised DWER that the proposed clearing is consistent with the Shire's Local Planning Scheme.

The application area is located within the boundaries of the Gnaala Karla Booja Indigenous Land Use Agreement area. No Aboriginal Heritage Places 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
Further avoidance and mitigation measures to mitigate the significant residual impact to: • black cockatoo foraging habitat,	The applicant provided suitable mitigation revegetation measures. Details are provided in Section 3.1.

Appendix B. Site characteristics

B.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is within two road reserves adjacent to one another. The vegetation is spread over four isolated patches of native vegetation, surrounded by residential area, in the intensive land use zone of Western Australia. Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 19.25 per cent of the original native vegetation cover.
Ecological linkage	The application area is mapped within an ecological linkage under the Greater Bunbury Region Scheme.
Conservation areas	The application area is not mapped within any conservation areas. The closest conservation area to the application area is Kalgulup Regional Park, 400 metres north of the application area.
Vegetation description	Photographs supplied by the applicant indicate the vegetation within the proposed clearing area consists of primarily of *Corymbia sp* and *Melaleuca sp*. Representative photos are available in Appendix E. This is consistent with the mapped vegetation type(s): • **Southern River Complex:** Open woodland of *Corymbia calophylla* (Marri), *Eucalyptus marginata* (Jarrah), Banksia species with fringing woodland of *Eucalyptus rudis* (Flooded Gum), *Melaleuca rhaphiophylla* (Swamp Paperbark) along creek beds. • **Karrakatta Complex – Central and South:** 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. The mapped vegetation types retain approximately 18.43 (Southern River Complex) and 23.49 (Karrakatta Complex) per cent of the original extent (Government of Western Australia, 2019).

<table>
<tr><th>Characteristic</th><th>Details</th></tr>
<tr><td>Vegetation condition</td><td>Photographs supplied by the applicant indicate the vegetation within the proposed clearing area is in completely degraded (Keighery, 1994) condition, with evidence of disturbance and weed infestation within the road verge.

The full Keighery (1994) condition rating scale is provided in Appendix D.
Representative photos are available in Appendix E.</td></tr>
<tr><td>Climate and landform</td><td>The application area experiences a Mediterranean climate with dry hot summers (highest mean maximum temperature is in January and February at 30^{O}C) and cool wet winters (lowest is in July at 17^{O}C). The average annual rainfall for the local area is 774mm.</td></tr>
<tr><td>Soil description and Land degradation risk</td><td>The soil is mapped as two descriptions, Bassendean B1 phase and Bassendean B3 Phase.

Their descriptions are:
Bassendean B1 Phase (212Bs__B1) is described as Extremely low to very low relief dunes, undulating sandplain and discrete sand rises with deep bleached grey sands sometimes with a pale-yellow B horizon or a weak iron-organic hardpan at depths generally greater than 2m, banksia dominant

Bassendean B3 Phase (212Bs__B3) is described as Closed depressions and poorly defined stream channels with moderately deep, poorly to very poorly drained bleached sands with an iron-organic pan, or clay subsoil. Surfaces are dark grey sand or sandy loam

The Land degradation risks table below:
<table>
<tr><th>Risk categories</th><th>Land Unit 1</th></tr>
<tr><td>Wind erosion</td><td>H1: 50-70% of the map unit has a high to extreme hazard
L2: 3-10% of the map unit has a high to extreme hazard</td></tr>
<tr><td>Water erosion</td><td>M2: 30-50% of the map unit has a very high to extreme hazard</td></tr>
<tr><td>Salinity</td><td>L2: 3-10% of the map unit has a moderate or high hazard or is presently saline</td></tr>
<tr><td>Subsurface Acidification</td><td>H2: >70% of the map unit has a high susceptibility</td></tr>
<tr><td>Flood risk</td><td>M2: 30-50% of the map unit has a moderate to high hazard</td></tr>
<tr><td>Water logging</td><td>M2: 30-50% of map unit has a high to extreme risk
H2: >70% of the map unit has a moderate to very high to risk</td></tr>
<tr><td>Phosphorus export risk</td><td>H2: >70% of the map unit has a high to extreme hazard</td></tr>
<tr><td>Water Repellence risk</td><td>M1: 10-30% of map unit has a high risk
H2: >70% of map unit has a high risk</td></tr>
</table></td></tr>
<tr><td>Waterbodies and Hydrogeography</td><td>The desktop assessment and aerial imagery indicate that three geomorphic wetlands occur within 300 metres of the application area, being a dampland, sumpland and a floodplain.

There is a non-perennial minor river 30 metres from the application area and the application area is within the Southwest and the Leschenault Estuary Lower Collie catchment area.

The area is mapped within the Bunbury Groundwater area proclaimed under the Rights in Water and Irrigation Act 1914 (the RIWI Act).</td></tr>
<tr><td>Flora</td><td>Spatial data includes records of 35 conservation significant flora recorded within the local area.</td></tr>
<tr><td>Ecological communities</td><td>Spatial data has no records of threatened or priority ecological communities within the application area.
Banksia woodlands of the swan coastal plain, a priority 3 ecological community and threatened ecological community are located in close proximity to the application area (30 metres). The vegetation within the application area is not contiguous with these vegetation patches.</td></tr>
<tr><td>Fauna</td><td>Fauna records in the local area (10km radius) indicate there are 61 threatened and priority fauna within the local area (10km radius). 42 birds, 13 mammals, 3 reptiles, 2 invertebrates and 1 fish are known to occur within the local area. There are no records of threatened or</td></tr>
</table>

Characteristic	Details
	priority fauna within the application area. The closest record of threatened fauna is *Pseudocheirus occidentalis* (western ringtail possum), 300 metres away and a known black cockatoo roost site 1.3 kilometres 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	1.02	19	N/A
Dasyurus geoffroii – chuditch, western quoll	VU	Y	Y	2.12	2	N/A
Phascogale tapoatafa wambenger – south-western brush tailed phascogale, Wambenger	CD	Y	Y	1.84	49	N/A
Pseudocheirus occidentalis - western ringtail possum, ngwayir	CR	Y	Y	0.28	1663	N/A
Zanda baudinii - Baudin's cockatoo	EN	Y	Y	5.88	8	N/A
Zanda latirostris - Carnaby's cockatoo	EN	Y	Y	1.33	57	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 is 30 metres from a 'Banksia Woodland of the Swan Coastal Plain' (Banksia Woodland) a Priority 3 Ecological Community (PEC). However, given the vegetation within the application area is not continguous with this PEC and noting the absence of banksia species within the application area, it is unlikely that the clearing will impact upon this PEC. The area proposed to be cleared contain regionally significant foraging habitat for three species of black cockatoo. Given the application area is parkland cleared, the clearing is not likely to have an impact on conservation significant flora and assemblage plants and is likely to impact 15 marri trees providing foraging resource for local populations of black cockatoo.	May be at variance	Yes *Refer to Section 3.2.1, 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 foraging habitat for three species of black cockatoo.	At variance	Yes *Refer to Section 3.2.1, above.*

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: The application is to clear specific species within the application area. None of these species (15 marri and two melaleuca) are listed as conservation significant species under the BC Act.	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 species that indicate a threatened ecological community (TEC). The application area is in close proximity (30 meters) to banksia woodland TEC however it is separated from this patch by previously cleared areas. It is not likely that the proposed clearing will impact vegetation that is part of or necessary for the maintenance of this TEC.	Not likely to be at variance	No
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 native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia in constrained area where a 10 per cent retention target is applied. The vegetation proposed to be cleared is part of a significant ecological linkage in the local area, the Bunbury Regional Scheme.	Not likely to be at variance	Yes *Refer to Section 3.2.1, 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 distance to the nearest conservation area (400 metres), 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: A number of water courses are recorded within 30 metres of the application area. The application area includes two trees of Melaleuca sp which are known to grow in association with water courses. Given the application area is highly modified, it is unlikely that the two Melaleuca trees are still hydrologically connected to nearby watercourses and are instead likely dependant on modified roadside infrastructure water resources (i.e. drainage channels).	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 highly susceptible to wind, water erosion, subsurface acidification, waterlogging and phosphorous export. Given the extent of	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
existing roadside infrastructure to manage land degradation impacts, the proposed clearing is not likely to cause appreciable land degradation.		
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: A number of water courses are recorded within 30 metres of the application area. The application area includes two trees of Melaleuca sp which are known to grow in association with water courses. Given the application area is highly modified, it is unlikely that the two Melaleuca trees are still hydrologically connected to nearby watercourses and are instead likely dependant on modified roadside infrastructure water resources (i.e. drainage channels).	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 the proposed clearing is likely to contribute to increased incidence or intensity of flooding. Given the small size of application area, the proposed clearing is unlikely to increase the incidence or intensity of flooding in the local area. Any additional run off as a result of clearing will be managed through existing roadside infrastructure (i.e. drainage).	Not likely to be at variance	No

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.

Condition	Description
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 (Shire of Dardanup, 2024)

Appendix F. Sources of information

F.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- 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)

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