



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 8974/1

File Number: DWERVT6156

Duration of Permit: From 9 December 2020 to 9 December 2022

PERMIT HOLDER

Shire of Kojonup

LAND ON WHICH CLEARING IS TO BE DONE

Lot 357 on Deposited Plan 220697, Kojonup

Lot 355 on Deposited Plan 220697, Kojonup

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 28 native trees within the area cross-hatched yellow on attached Plan 8974/1.

CONDITIONS

1. Avoid, minimise and reduce the impacts and extent of clearing

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in 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. Application

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

4. Records must be kept

In relation to the clearing of native vegetation authorised under this Permit:

- (a) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
- (b) the date that the area was cleared; and
- (c) the size of the area cleared (in hectares)
- (d) actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 1 of this Permit; and

- (e) actions taken to minimise the risk of the introduction and spread of *dieback* and *weeds* in accordance with condition 2 of this Permit.

5. Reporting

The Permit Holder must produce the records required under condition 4 of this Permit when required by the *CEO*.

DEFINITIONS

The following meanings are given to terms used in this Permit:

CEO: means the Chief Executive Officer of the Department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*;

dieback means the effect of *Phytophthora* species on native vegetation.

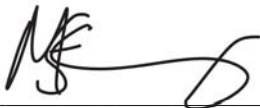
fill means material used to increase the ground level, or fill a hollow;

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;

planting means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;

weed/s 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 Regional Weed Rankings Summary, regardless of ranking; or
- (c) not indigenous to the area concerned.



Mathew Gannaway
MANAGER
NATIVE VEGETATION REGULATION

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

16 November 2020

Plan 8974/1

117°8'10.320"E

117°8'12.480"E

117°8'14.640"E

117°8'16.800"E

117°8'18.960"E

33°50'34.800"S

33°50'36.960"S

33°50'39.120"S

33°50'41.280"S

33°50'43.440"S

33°50'34.800"S

33°50'36.960"S

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33°50'43.440"S

117°8'10.320"E

117°8'12.480"E

117°8'14.640"E

117°8'16.800"E


117°8'18.960"E



CPS layers

 CPS areas approved to clear

Legend

 Land Tenure (Landgate - 226)

 Local Government Authorities




0 25 50 m



1:1,600

MGA Zone 50
Geocentric Datum of Australia 1994


Mathew Gannaway
2020.11.16
13:54:05
+08'00'
Officer delegated under section 20 of the
Environmental Protection Act 1986



GOVERNMENT OF
WESTERN AUSTRALIA



Clearing Permit Decision Report

1. Application details and outcome

1.1. Permit application details

Permit number:	CPS 8974/1
Permit type:	Area permit
Applicant name:	Shire of Kojonup
Application received:	23 July 2020
Application area:	28 native trees
Purpose of clearing:	Removal of dead trees for public safety
Method of clearing:	Mechanical
Property:	Lot 357 on Deposited Plan 220697 Lot 355 on Deposited Plan 220697
Location (LGA area/s):	Shire of Kojonup
Localities (suburb/s):	Kojonup

1.2. Description of clearing activities

The vegetation applied to be cleared comprises 28 dead or dying native trees, scattered throughout Kojonup Golf Course. The Shire of Kojonup (the Shire) is concerned the dead trees may pose a danger to public safety and members of the golf club.

1.3. Decision on application and key considerations

Decision:	Granted
Decision date:	16 November 2020
Decision area:	28 native trees, as depicted in Section 1.5, below.

1.4. Reasons for decision

This clearing permit application was made in accordance with section 51E of the *Environmental Protection Act 1986* (EP Act) and was received by the Department of Water and Environmental Regulation (DWER) on 23 July 2020. DWER advertised the application for public comment and no submissions were received.

In undertaking their assessment, and in accordance with section 51O of the EP Act, the Delegated Officer has given consideration to the Clearing Principles in Schedule 5 of the EP Act (see Appendix D), relevant planning instruments, and any other pertinent matters they deemed relevant to the assessment (see Sections 3).

In particular, the Delegated Officer has determined that:

- the clearing is not likely to have a significant impact on the three cockatoo species; Baudin's cockatoo (*Calyptorhynchus baudinii*), Carnaby's cockatoo (*Calyptorhynchus latirostris*) and the forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*)
- the clearing is unlikely to impact the adjacent remnant vegetation
- the implementation of dieback and weed management practices is appropriate to mitigate the impact of spreading of dieback and weeds into adjacent vegetation
- the implementation of avoidance and minimisation techniques is appropriate to further reduce the clearing of vegetation within a highly cleared area.

The Delegated Officer also took into consideration the purpose of the clearing is to improve public safety by the removal of dead and dying trees that may fall or drop branches and cause harm to the public and members of the Kojonup Golf Club.

In determining to grant a clearing permit, subject to conditions, the Delegated Officer found that the proposed clearing is not likely to lead to an unacceptable risk to the environment.

1.5. Site map

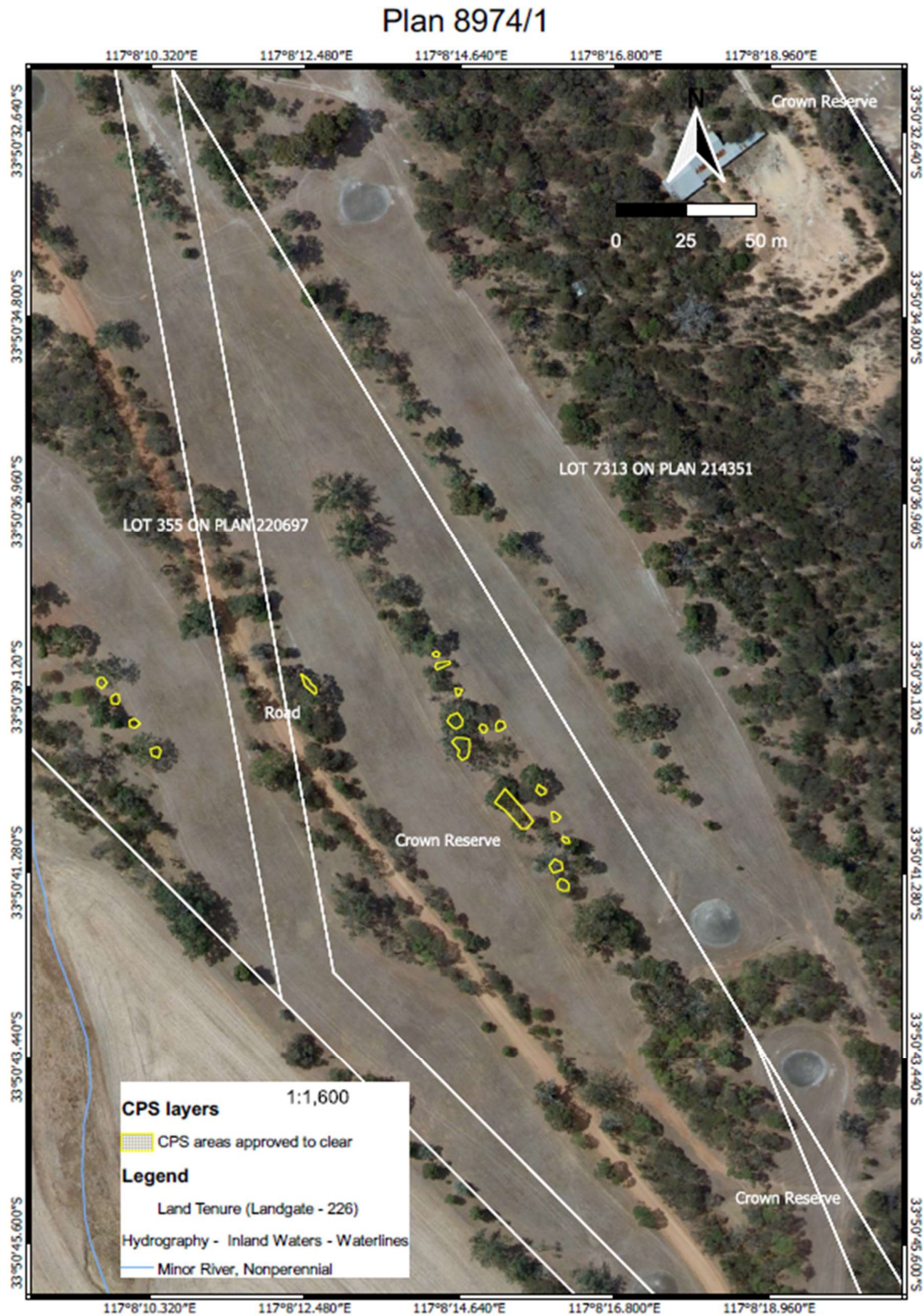


Figure 1. Map of the application area.

The area/s cross-hatched yellow indicate/s the area/s 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 1.3), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

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

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Country Areas Water Supply Act 1947* (WA) (CAWS Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Planning and Development Act 2005* (WA) (P&D Act)
- *Soil and Land Conservation Act 1945* (WA)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)

3. Detailed assessment of application

3.1. Avoidance and mitigation measures

Although no avoidance and mitigation measures have been provided by the applicant, the proposed clearing is limited to 28 dead or dying trees the applicant considers to be a danger to the public and members of the Kojonup Golf Club.

3.2. Assessment of environmental impacts

In assessing the application in accordance with section 51O of the EP Act, the Delegated Officer has examined the application and site characteristics (Appendix C) and considered whether the clearing poses a risk to environmental values. The assessment against the Clearing Principles is contained in Appendix D.

This assessment identified that the clearing may pose a risk to biological values and significant remnant vegetation, and that these required further consideration. The detailed consideration and assessment of the clearing impacts against the specific environmental values is provided below.

3.2.1. Environmental value: biological values (fauna) – Clearing Principle (b)

Assessment: Of the fauna species of conservation significance identified within the local area, the species most likely to occur within the application area are the three species of black cockatoo. Baudin's Cockatoo (*Calyptorhynchus baudinii*), Carnaby's Cockatoo (*Calyptorhynchus latirostris*) and the Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*) have been recorded within the vicinity of the application area (Appendix B Section 2). According to available databases, a confirmed cockatoo roost is recorded 2 km north east of the proposed clearing.

Black cockatoo roosts are usually located in the tallest trees of an area, and in proximity to both a food supply and surface water (Commonwealth of Australia, 2017). Flocks will use different roosts, often for weeks, or until the local food supply is exhausted. Cockatoo flocks show some consistency in roost site preference, with sites used in most years to access high-quality feeding sites. However, not all roosts are used in every year (DPaW, 2013).

Suitable breeding habitat for this species includes trees which either have a suitable nest hollow or are of a suitable diameter at breast height (DBH) to develop a nest hollow. For most tree species, including Jarrah and Marri trees a suitable DBH is 500 millimetres. For Salmon Gum and Wandoo, a suitable DBH is 300 mm (Commonwealth of Australia, 2012). No cockatoo breeding sites were recorded within the local area and, based on images provided in support of the application (Appendix A), the trees proposed to be cleared are not of sufficient size to form hollows.

Food resources within the range of breeding sites and roost sites are important to sustain populations and foraging resources are therefore viewed in the context of known breeding and night roosting sites, particularly within 12 kilometres of an impact area (Commonwealth of Australia, 2017). Noting the small size of the clearing area that retains little foraging value due to minimal vegetative material remaining, the proposed clearing is unlikely to impact roosting or foraging habitat for the three cockatoo species.

Outcome: Based on the above assessment, the Delegated Officer has determined that the proposed clearing is not going to present a risk to this environmental value.

Conditions: No fauna management conditions required.

3.2.2. Environmental value: biological values (flora) – Clearing Principles (e)

Assessment: As indicated in Appendix B Section 3, the Jarrah Forest IBRA region retains approximately 53 per cent of its pre-European native vegetation extent (Government of Western Australia, 2018). The mapped vegetation complex, Jarrah Woodland 4, currently retains approximately 27 per cent of its pre-European native vegetation extent (Government of Western Australia, 2018). A review of available databases determined the local area retains approximately 19 per cent of its pre-European native vegetation extent.

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750 (i.e. pre-European settlement). This is the threshold level below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001). As the vegetation is in a degraded condition (Appendix B) and limited to 28 dead or dying trees that do not contain conservation significant flora, fauna or communities, the proposed clearing is not a significant remnant within an extensively cleared landscape.

The application area is located adjacent to areas of remnant vegetation. The proposed clearing may pose a risk at spreading weeds and dieback. Weed and dieback management practices will mitigate this risk.

Outcome: Based on the above assessment, the Delegated Officer has determined that the proposed clearing is not going to significantly impact on this environmental value.

Conditions: Weed and dieback management practices will reduce the risk of impacting adjacent vegetation within an extensively cleared landscape.

3.3. Relevant planning instruments and other matters

Kojonup Golf Course, which includes the application area, is crown land vested with the Department of Planning, Lands and Heritage. The City of Kojonup are responsible for the management of the land as stated under a management order listed on the certificate of title (Lot 357 On Plan 220697 and Lot 355 On Plan 220697).

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.

Proposed clearing is not mapped as occurring within any groundwater area proclaimed under the *Rights in Water and Irrigation Act 1914* (RIWI Act). No rivers proclaimed under the RIWI Act intersect the application and the application is not located in any *Country Areas Water Supply Act 1947* (CAWS Act) clearing control catchments or Public Drinking Water Source Areas.

Appendix A – Additional information provided by applicant



Figure 2. Location of photographs provided by the applicant (Shire of Kojonup 2020)



Figure 3. Photo 1 Hole 6

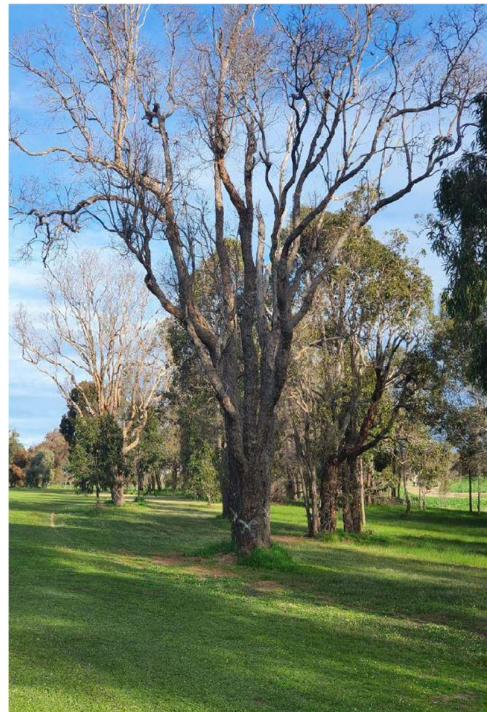


Figure 4. Photo 2 Hole 6

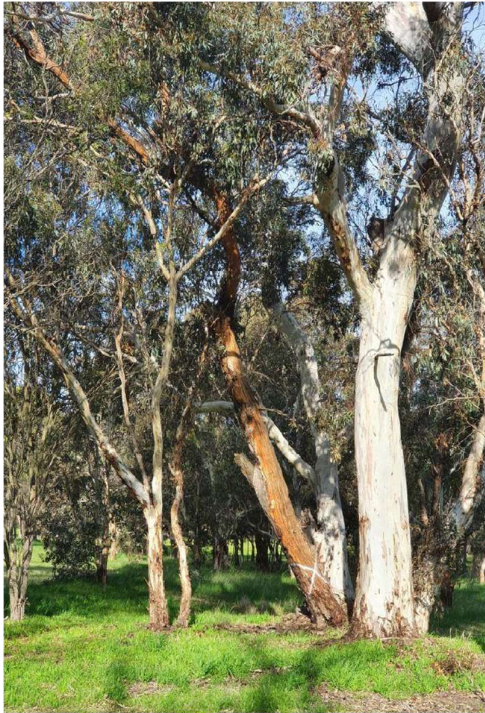


Figure 5. Photo 3 Hole 3

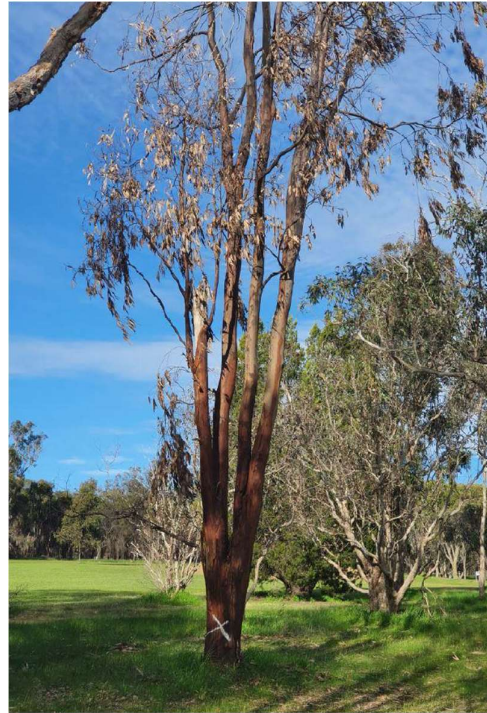


Figure 6. Photo 4 Hole 3

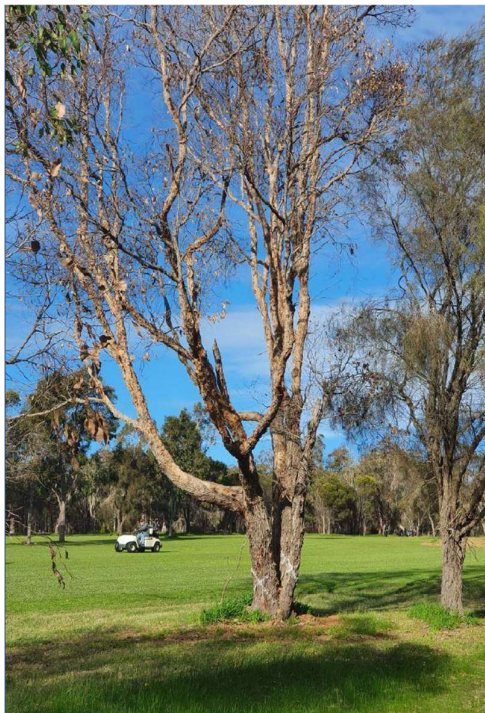


Figure 7. Photo 5 Hole 3

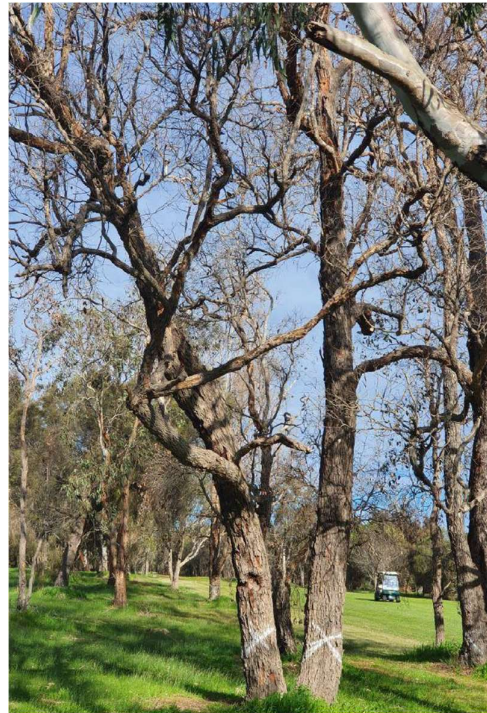


Figure 8. Photo 6 Hole 4



Figure 9. Photo 7 Hole 4



Figure 10. Photo 8 Hole 4



Figure 11. Photo 9 Hole 6



Figure 12. Photo 10 Hole 3

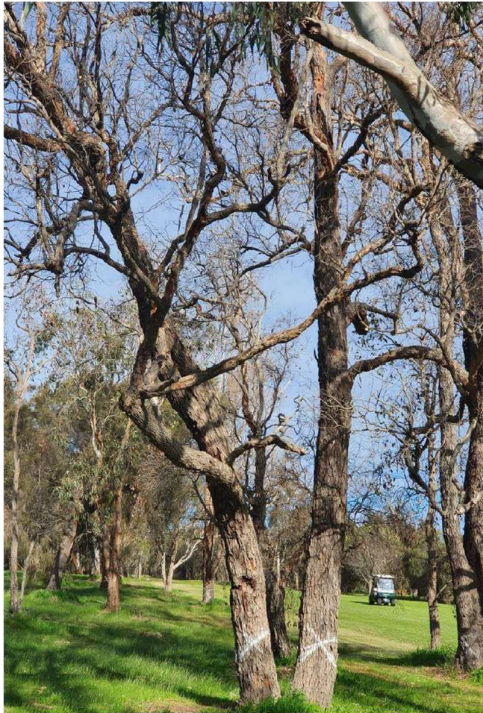


Figure 13. Photo 11 Hole 3



Figure 14. Photo 12 Hole 4

Appendix B – Site characteristics

The information provided below describes the key characteristics of the area proposed to be cleared and is based on the best information available to DWER at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix C.

1. Site summary

Site characteristic	Details
Local context	The proposed clearing area comprises 28 native trees within a golf course connected to a larger area of vegetation, covering approximately 133 hectares. Spatial data indicates the local area (10 kilometre radius of the proposed clearing area) retains approximately 19.23 per cent of the original native vegetation cover.
Vegetation description	<p>Photographs supplied by the applicant (Shire of Kojonup, 2020) indicate the vegetation within the proposed clearing area consists of parkland cleared vegetation. Representative photos are available in Appendix A.</p> <p>This is consistent with the mapped vegetation type Jarrah Forest, Vegetation Association 4, which is described as Jarrah, Marri and Wandoo <i>Eucalyptus marginata</i>, <i>Corymbia calophylla</i>, <i>E. wandoo</i> vegetation (Shepherd et al, 2001).</p>
Vegetation condition	<p>Photographs supplied by the applicant indicate the vegetation within the proposed clearing area is in Degraded condition (Keighery, 1994).</p> <p>The full Keighery condition rating scale is provided in Appendix D. Representative photos are available in Appendix A.</p>
Soil description	The soil is mapped as, Farrar 2 Subsystem, which is described as undulating rises and low hills with mainly grey deep sandy duplex soils.
Land degradation risk	<p>The land degradation risk categories that apply to the Farrar 2 Subsystem are (Schoknecht et al., 2004; DAFWA, 2017):</p> <ul style="list-style-type: none"> • <i>Water Erosion: <3% of map unit has a high risk</i> • <i>Wind Erosion: 30-50% of map unit has a high to extreme wind erosion risk</i> • <i>Salinity: <3% of map unit has a high risk</i> • <i>Flood risk: <3% of map unit has a high risk</i> • <i>Water logging: 10-30% of map unit has a high to extreme risk</i> • <i>Subsurface acidification: >70% of map unit has a high to extreme risk</i>
Waterbodies	The desktop assessment and aerial imagery indicated that one minor, non-perennial watercourse is mapped 30 meters south east of the application area.
Conservation areas	Unconnected Unnamed nature reserve 2km to the north east.
Climate and landform	Kojonup annual rainfall 530.9 mm.

2. Flora, fauna and ecosystem analysis

With consideration for the site characteristics set out above, relevant datasets (see Appendix E), the following conservation significant fauna species, occur within 10km of the application area.

Species / Ecological Community	Distance of closest record to application area (kilometres)	Suitable soil type? (flora, ecological community)	Suitable vegetation type? (flora, ecological community)	Suitable habitat features (fauna)	Are surveys adequate to identify? (Y, N, N/A)
Flora		n			
<i>Acacia grisea</i>	1672	no	no	no	yes
<i>Banksia acuminata</i>	1947	yes	no	no	yes
<i>Caladenia integra</i>	2305	no	no	no	yes
<i>Calectasia obtusa</i>	9806	no	no	no	yes
<i>Conostylis setigera subsp. dasys</i>	3040	no	no	no	yes
<i>Diuris drummondii</i>	1672	no	no	no	yes
<i>Gastrolobium lehmannii</i>	2950	no	no	no	yes
<i>Gastrolobium ovalifolium</i>	1672	yes	no	no	yes
<i>Laxmannia grandiflora</i> subsp. <i>stirlingensis</i>	2598	no	no	no	yes
<i>Melaleuca ordinifolia</i>	2950	no	no	no	yes
Fauna					
<i>Calyptorhynchus baudinii</i> (Baudin's cockatoo)	481	na	yes	yes	yes
<i>Calyptorhynchus latirostris</i> (Carnaby's cockatoo)	1207	na	yes	yes	yes
<i>Calyptorhynchus banksii naso</i> (Forest red-tailed black cockatoo)	1207	na	yes	yes	yes
<i>Onychogalea lunata</i> (Crescent nailtail wallaby, tjawalpa)	1675	na	no	no	yes
<i>Notamacropus irma</i> (Western brush wallaby)	1675	na	no	no	yes
<i>Phascogale calura</i> (Red-tailed phascogale, kenngoor)	1675	na	yes	no	yes
<i>Phascogale tapoatafa wambenger</i> (South-western brush-tailed phascogale, wambenger)	1675	na	yes	no	yes
<i>Dasyurus geoffroi</i> (Chuditch, western quoll)	1675	na	yes	no	yes
<i>Macrotis lagotis</i> (Bilby, dalgyte, ninu)	1675	na	no	no	yes
<i>Botaurus poiciloptilus</i> (Australasian bittern)	1675	na	no	no	yes

Species / Ecological Community	Distance of closest record to application area (kilometres)	Suitable soil type? (flora, ecological community)	Suitable vegetation type? (flora, ecological community)	Suitable habitat features (fauna)	Are surveys adequate to identify? (Y, N, N/A)
<i>Bettongia lesueur graii</i> (Boodie (inland), burrowing bettong (inland))	1675	na	no	no	yes
<i>Myrmecobius fasciatus</i> (Numbat, walpurti)	2320	na	no	no	yes
<i>Falco peregrinus</i> (Peregrine falcon)	2765	na	no	no	yes
<i>Calyptorhynchus</i> sp. 'white-tailed black cockatoo' (White-tailed black cockatoo)	3563	na	yes	no	yes

3. Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	% remaining	Current extent in all DBCA managed land (ha)	% current extent in all DBCA managed land (proportion of pre-European extent)
IBRA bioregion					
Jarrah Forest	4,506660.25	2,399,838.15	53.25	1,673,614.25	39.43
Vegetation complex					
Jarrah Woodland 4	1,22,712.69	277,087.18	27.09	65,961.48	6.66
Local Area					
10 km radius	141151142	2715.341	19.23712		

Appendix C – Assessment against the Clearing Principles

Assessment against the Clearing Principles	Variance level	Is further consideration required?
Environmental value: biological values		
<p><u>Principle (a)</u>: "Native vegetation should not be cleared if it comprises a high level of biodiversity."</p> <p><u>Assessment</u>: The application area is predominantly parkland cleared comprising of dead or dying trees and in a Degraded condition. The proposed clearing area is unlikely to contain locally or regionally significant flora, fauna habitats, or assemblages of plants.</p>	Not at variance	No
<p><u>Principle (b)</u>: "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."</p>	Not likely to be at variance	Yes Refer to Section 3.2.1 above.

Assessment against the Clearing Principles	Variance level	Is further consideration required?
<p><u>Assessment:</u> Baudin's cockatoo (<i>Calyptorhynchus baudinii</i>) has been recorded with 500 metres of the application area. No breeding or roosting habitat for black cockatoos is available within the application area and foraging habitat may be negligible.</p>		
<p><u>Principle (c):</u> "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."</p> <p><u>Assessment:</u> The application area is parkland cleared, reduced to standing trees over a managed grassland of introduced grass species (see Appendix A). The proposed clearing area is unlikely to contain habitat for flora species listed under the BC Act.</p>	Not at variance	No
<p><u>Principle (d):</u> "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."</p> <p><u>Assessment:</u> The proposed clearing area does not contain species that resemble a threatened ecological community as listed by the Minister for Environment.</p>	Not at variance	No
Environmental values: significant remnant vegetation and conservation areas		
<p><u>Principle (e):</u> "Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."</p> <p><u>Assessment:</u> The extent of native vegetation in the local area is below 20 per cent. The application area does not contain significant flora, fauna habitat or communities and is not considered a significant remnant.</p>	Not at variance	Yes Refer to Section 3.2.2 above.
<p><u>Principle (h):</u> "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."</p> <p><u>Assessment:</u> According to available databases, an unnamed nature reserve occurs two kilometres to the north east. 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.</p>	Not at variance	No
Environmental values: land and water resources		
<p><u>Principle (f):</u> "Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."</p> <p><u>Assessment:</u> An ephemeral minor drainage line occurs 35 metres west of the proposed clearing area. The vegetation within the clearing area is not representative of riparian or wetland vegetation.</p>	Not at variance	No
<p><u>Principle (g):</u> "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."</p> <p><u>Assessment:</u> The mapped soil types are moderately susceptible to wind erosion. Noting that the clearing is limited to the removal of individual trees, the proposed clearing is not likely to have an appreciable impact on land degradation.</p>	Not at variance	No
<p><u>Principle (i):</u> "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."</p>	Not at variance	No

Assessment against the Clearing Principles	Variance level	Is further consideration required?
<p><u>Assessment:</u> The application area is located in the Southern Zone of Rejuvenated Drainage. Noting that the clearing is limited to the removal of individual trees, the proposed clearing is not likely to cause deterioration in the quality of surface or underground water.</p>		
<p><u>Principle (j):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</i></p> <p><u>Assessment:</u> The mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding.</p>	Not 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.

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 – References and databases

1. GIS datasets

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

- Aboriginal Heritage Places (DPLH-001)
- 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)
- IBRA Vegetation Statistics
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Regional Parks (DBCA-026)
- Soil and Landscape Mapping – Best Available

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)

2. References

Commonwealth of Australia (2012) EPBC Act referral guidelines for three threatened black cockatoo species, Canberra.

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