

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: CPS 3081/5 File Number: DEC11089

Duration of Permit: From 6 September 2009 to 6 September 2028

PERMIT HOLDER

Carbone Bros Pty Ltd on behalf of Ilario Maiolo

LAND ON WHICH CLEARING IS TO BE DONE

Lot 5397 on Deposited Plan 215971

AUTHORISED ACTIVITY

The permit holder must not clear more than 5.6 hectares of native vegetation and 33 trees, within the area cross-hatched yellow in Figure 1 of Schedule 1.

CONDITIONS

1. Period during which *clearing* is authorised

The permit holder must not clear any native vegetation after 6 September 2023.

2. 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.

3. 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.

4. Retain vegetative material and topsoil, revegetation and rehabilitation

The permit holder shall:

- (a) retain the vegetative material and topsoil removed by *clearing* authorised under this Permit and stockpile the vegetative material and topsoil in an area that has already been cleared.
- (b) within 3 months following the completion of extractive activities, *revegetate* and *rehabilitate* the area cross-hatched red in Figure 2 of Schedule 1 by:
 - (i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land;
 - (ii) ripping the ground on the contour to remove soil compaction;
 - (iii) ripping the pit floor and contour batters within the extraction site; and
 - (iv) laying the vegetative material and topsoil retained under condition 4(a) on the cleared area(s) that are no longer required for the purpose for which they were cleared under this Permit.
- (c) within 24 months of undertaking *revegetation* and *rehabilitation* in accordance with condition 4(b) of this Permit:
 - (i) engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and
 - (ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under condition 4(c)(i) of this Permit will not result in a similar species composition, structure and density to that of pre-*clearing* vegetation types in that area, the Permit Holder must undertake additional *planting* or *direct seeding* of native vegetation.
- (d) where additional *planting* or *direct seeding* of native vegetation is undertaken in accordance with condition 4(c)(ii) of this permit, the Permit Holder shall repeat condition 4(c)(i) and 4(c)(ii) within 24 months of undertaking the additional *planting* or *direct seeding* of native vegetation.
- (e) where a determination by an *environmental specialist* that the composition, structure and density within areas *revegetated* and *rehabilitated* will result in a similar species composition, structure and density to that of pre-*clearing* vegetation types in that area, as determined in condition 4(c)(i) and (ii) of this permit, that determination shall be submitted for the *CEO*'s consideration. If the *CEO* does not agree with the determination made under condition 4(e), the *CEO* may require the Permit Holder to undertake additional *planting* and *direct seeding* in accordance with the requirements under condition 4(c)(ii).

5. Vegetation management

- (a) Prior to January 2024, the Permit Holder shall construct a fence to exclude all classes of livestock from the *revegetation area*.
- (b) Within one month of installing the fence, the Permit Holder shall notify the *CEO* in writing that the fence has been completed.

6. 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	Spec	rifications
1.	In relation to the authorised <i>clearing</i>	(a)	the species composition, structure, and density of the cleared area;
	activities generally	(b)	the location where the <i>clearing</i> occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
		(c)	the date that the area was cleared;
		(d)	the size of the area cleared (in hectares and trees);
		(e)	actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 2;
		(f)	actions taken to minimise the risk of the introduction and spread of weeds and dieback in accordance with condition 3;
2.	In relation to the revegetation and	(a)	a description of the <i>revegetation</i> and <i>rehabilitation</i> activities undertaken;
	rehabilitation of the areas pursuant to condition 4 of this permit	(b)	the location of any areas <i>revegetated</i> and <i>rehabilitated</i> , recorded using a GPS unit to Geocentric Datum Australia 1994 (GDA94) expressing the geographical coordinates in Eastings and Northings or decimal degrees;
		(c)	the size of the area <i>revegetated</i> and <i>rehabilitated</i> (in hectares);
		(d)	the species composition, structure and density of <i>revegetation</i> and <i>rehabilitation</i> , and

No.	Relevant matter	Specifications					
		(e)	a copy of the <i>environmental specialist</i> 's report.				

7. Reporting

- (a) The Permit Holder must provide to the *CEO* on or before 30 June of each year, a written report:
 - (i) of records required under condition 6 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January to 31 December of the preceding year.
- (b) If no *clearing* authorised under this Permit was undertaken between 1 January to 31 December of the preceding year, a written report confirming that no *clearing* under this permit has been carried out, must be provided to the *CEO* on or before 30 June of each year.
- (c) Prior to 6 June 2028, the Permit Holder must provide to the *CEO* a written report of records required under condition 6 of this Permit where these records have not already been provided under condition 7(a) of this Permit.

DEFINITIONS

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

Table 2: Definitions

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the <i>clearing</i> provisions under the <i>Environmental Protection Act 1986</i> .
clearing	has the meaning given under section 3(1) of the EP Act.
condition	a condition to which this <i>clearing</i> permit is subject under section 51H of the EP Act.
dieback	means the effect of <i>Phytophthora</i> species on native vegetation.
department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
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 <i>environmental specialist</i> is required to provide under this permit, or who is approved by the CEO as a suitable <i>environmental specialist</i> .
EP Act	Environmental Protection Act 1986 (WA)
fill	means material used to increase the ground level, or to <i>fill</i> a depression.
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
rehabilitate /	means actively managing an area containing native vegetation in order

Term	Definition					
rehabilitated / rehabilitation	to improve the ecological function of that area.					
revegetate / vegetated / revegetation	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- <i>clearing</i> vegetation types in that area.					
weeds	means any plant – (a) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i> ; or (b) published in a Department of Biodiversity, Conservation and					
	Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or (c) not indigenous to the area concerned.					

END OF CONDITIONS

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Ryan Mincham MANAGER NATIVE VEGETATION REGULATION

Officer delegated under Section 20 of the Environmental Protection Act 1986

21 May 2021

SCHEDULE 1

The boundary of the area authorised to be cleared is shown in the map below.

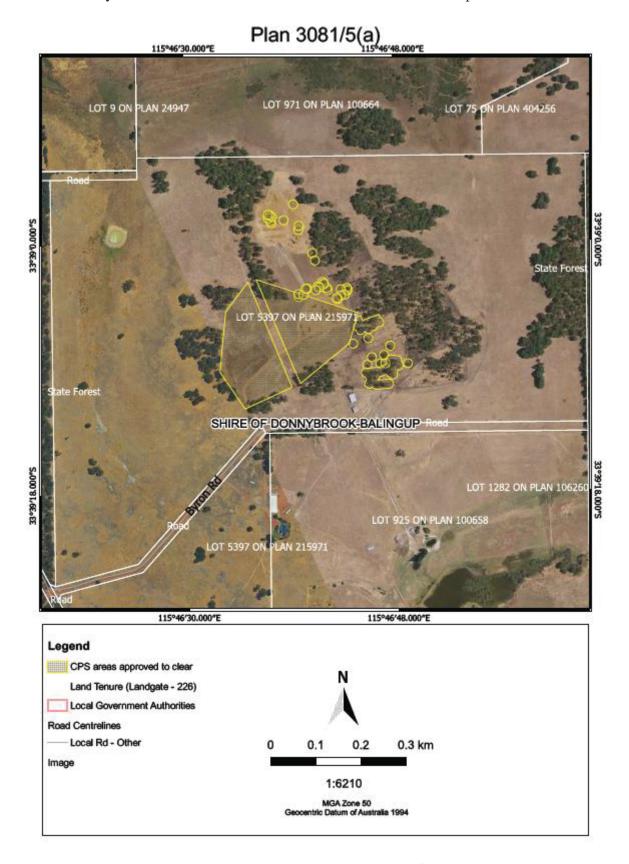


Figure 1: Map of the boundary of the area within which clearing may occur

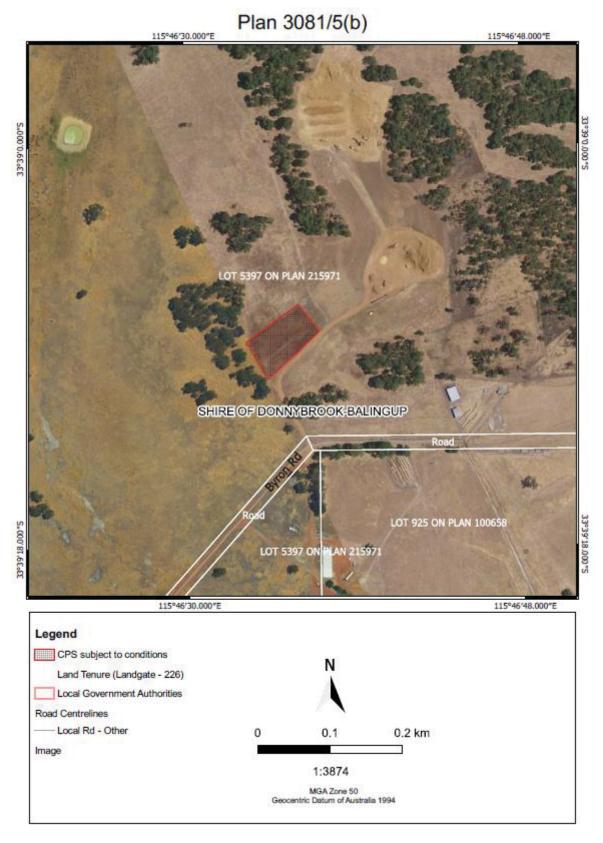


Figure 2: Map showing area where revegetation and rehabilitation conditions apply

Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number: CPS 3081/5

Permit type: Area permit

Applicant name: Carbone Bros Pty Ltd

Application received: 7 September 2020

Application area: 5.6. hectares (ha) and 33 trees

Purpose of clearing: Extractive Industry

Method of clearing: Mechanical

Property: Lot 5397 on Deposited Plan 215971

Location (LGA area/s): Shire of Donnybrook-Balingup

Localities (suburb/s): Upper Capel

1.2. Description of clearing activities

This amendment is to increase the amount of authorised clearing by 0.25 hectares across two separate areas (see Figure 1, Section 1.5) and to extend the duration of clearing until 6 September 2023. A total of 5.6 hectares and 33 trees is authorised to clear under amended permit CPS 3081/5.

1.3. Decision on application

Decision: Granted

Decision date: 21 May 2021

Decision area: 5.6 ha and 33 trees

1.4. Reasons for decision

This clearing permit amendment application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (DWER) advertised the application for 21 days and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix A), relevant datasets (Appendix E), the findings of a site visit conducted by Lundstrom (2021), the clearing principles set out in Schedule 5 of the EP Act (Appendix B), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3).

The assessment has not substantially changed since the assessment for CPS 3081/1, except in the case of principle (b) where one potential black cockatoo breeding tree was identified as occurring outside the application area to east. The Delegated Officer determined that the proposed additional clearing of 0.25 hectares is not likely to lead to an unacceptable risk to environmental values given the identified potential black cockatoo breeding tree will not be impacted by the clearing activities.

1.5. Site map

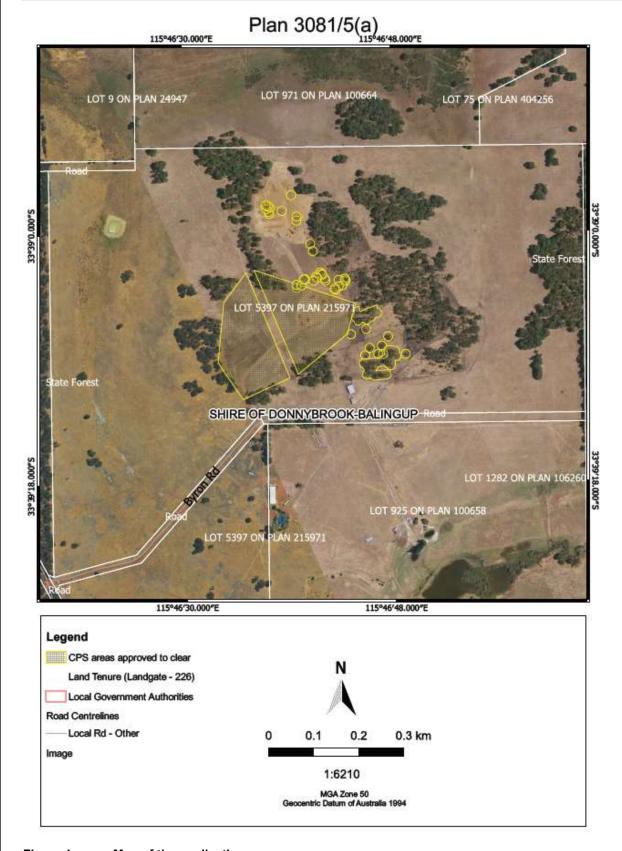


Figure 1 Map of the application area

The areas cross-hatched yellow indicate 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 510 of the EP Act (see Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

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

Other legislation of relevance for this assessment include:

- Biodiversity Conservation Act 2016 (WA) (BC Act)
- Conservation and Land Management Act 1984 (WA) (CALM 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 was satisfied that the applicant has avoided and minimised the potential impacts of the proposed clearing on environmental values by targeting areas of Completely Degraded vegetation and through the avoidance of a tree identified as having potential breeding value for Black cockatoos.

3.2. Assessment of impacts on environmental values

A review of current environmental information (Appendix A) reveals that the assessment against the clearing principles has not changed substantially from the Clearing Permit Decision Report CPS 3081/1. A site investigation has determined that a potential black cockatoo breeding tree is located outside of the application area to the east; this tree will be avoided (Lundstrom, 2021).

The area proposed to be cleared does contain some foraging and roosting habitat trees for black cockatoos, however, none of these trees had observable hollows suitable for black cockatoo breeding (Lundstrom, 2021). Although potential roosting and foraging trees are present within the application area, the impacts to habitat which may be utilised by black cockatoos is not assessed to be significant in the context of the extensive amount of comparable habitat found within the local area, much of which occurs within conservation estate.

Conditions

No conditions are required in addition to those specified in permit CPS 3081/4.

3.3. Relevant planning instruments and other matters

The Shire of Donnybrook – Balingup advised DWER that local government approvals are not required, and that the proposed clearing is consistent with the Shire's Local Planning Scheme. The Shire advised that the applicant holds an active Extractive Industry Licence which expires on 13 February 2024 (A1953363).

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. Site characteristics

A.1. Site characteristics

Characteristic	Characteristic Details
Local context	The area proposed to be cleared is part of an isolated patch of native vegetation within a cleared paddock which has been used for grazing. It is between two large parcels of native vegetation, both of which occur within conservation estate; Jarrahwood State Forest (371 metres to the east) and Boyanup State Forest (660 metres to the north).
	Aerial imagery and spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 60 per cent of the original native vegetation cover.
Ecological linkage	The application area intersects a mapped South West Regional Ecological Linkage. The next nearest ecological linkage is a roadside conservation linkage 0.56 kilometres to the west, which is mapped within the Jarrahwood State Forest.
	Aerial imagery indicates that ecological linkage function is not likely to be compromised as vegetation within the same contiguous patch that surrounds the application areas will be retained, which will provide a stepping-stone to the Jarrahwood State Forest which is located on both sides of the application area.
Conservation areas	There are two areas of conservation estate within the local area, namely the Jarrah State Forest (0.37 kilometres west) and the Boyanup State Forest (0.66 kilometres north).
Vegetation description	Photographs supplied by the applicant indicate the vegetation within the proposed clearing area consists of Jarrah trees which comprise an upper story, isolated middle story plants and no groundcover. Representative photos are available in Appendix D. This is not consistent with the mapped vegetation types;
	 Blackwood Plateau and Plain, Kingia Complex, which is described as, open forest of Eucalyptus marginata subsp. marginata- Corymbia calophylla - Allocasuarina fraseriana - Banksia grandis - Xylomelum occidentale on lateritic uplands in perhumid and humid zones. (Shepherd et al, 2001)
	 Blackwood Plateau and Plain, Rosa Complex, which is described as Woodland to open forest of Corymbia calophylla - Eucalyptus marginata subsp. marginata - Xylomelum occidentale on slopes and tall shrubland of Agonis linearifolia in valley floors in the humid zone.
	Both mapped vegetation types retain over 75 per cent of their original pre-European extent, with both retaining over 65 percent of their pre-European extent within DBCA managed land (Government of Western Australia, 2019).
Vegetation condition	Photographs and site visit observations supplied by the applicant (Lundstrom, 2021) indicate the vegetation within the proposed clearing area is in Completely Degraded (Keighery, 1994) condition, described as:
	 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.
	The full Keighery (1994) condition rating scale is provided in Appendix C. Representative photos are available in Appendix D.
Climate and landform	Rainfall: 1000 millilitres per annum. Evapotranspiration: 700 millilitres per annum. Geology: Marine and continental sedimentary rocks
Soil description	The soil is mapped as Kingia Subsystem and Rosa gentle slopes Phase which are

Characteristic	Characteristic Details
Ondractoristic	described as:
	Broad undulating lateritic crests and divides over sedimentary rocks, relief 5-20 m, slopes 1-10%. Soils are sandy gravels with some deep sands. Gentle valley slopes and footslopes (Relief 10-30 m, slopes 3-10%).
Land degradation risk	The land degradation risk for both soil types are high for Subsurface Acidification, high for Subsurface Compaction, moderate for Soil Water Storage and extremely high for Wind Erosion.
Waterbodies	The closest water body to the application area is a reservoir 3.58 kilometres to the south
Hydrogeography	The application area is not within a Country Area Water Supply (CAWS) clearing control catchment or a Public Drinking Water Source Area.
Flora	There are 17 records of conservation significant flora within the local area, of which three are listed as threatened under the BC Act; <i>Banksia squarrosa</i> subsp. <i>argillacea; Caladenia procera</i> and <i>Verticordia densiflora</i> var. <i>pedunculata</i> . The following species recorded within the local area are found within the same soil types as those occurring within the application area.
	Caladenia procera (Threatened) - closest record 7.5 kilometres west
	Banksia squarrosa subsp. argillacea (Threatened) - closest record 8.4 kilometres west
	Boronia humifusa (P1)) - closest record 7.2 kilometres north
	Acacia semitrullata (P4) - closest record 3.65 kilometres north
Ecological communities	No TEC's or PEC's have been mapped within the local area.
Fauna	According to available databases, there are seventeen species of conservation significant fauna recorded within the local area:
	The closest white-tailed black cockatoo is recorded approximately 11.5 kilometres away from the application area.
	The closest Baudin's cockatoo is recorded approximately 2.74 kilometres away from the application area.
	The closest Carnaby's cockatoo habitat tree is recorded approximately 6.81 kilometres away from the application area.
	The closest forest re-tailed black cockatoo (vulnerable) is recorded approximately 1.67 kilometres from the application area.

A.1. Vegetation extent

	Pre- European extent (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre- European extent in all DBCA managed land
IBRA bioregion*					
Jarrah Forest	4,506,660.25	2,399,838.15	53.25	1,673,614.25	69.74
Vegetation complex					
Rosa	17,240.71	12,979.09	75.28	11,447.43	66.40
Kingia	102,026.18	96,173.78	94.569.47	94,478,07	92.60

^{*}Government of Western Australia (2019a)

A.2. Flora analysis table

Only four species of conservation significance recorded within the local area are found on the same soil types as those mapped within the application area. Although these species are found in the same soil types to the application area, it is not likely that they occur within the application area as other key preferred habitat features are not present.

Banksia squarrosa subsp. argillacea prefers winter-wet flats or clay flats and Acacia semitrullata prefers sandplains and swampy areas. The application area does not represent this type of habitat due to topography and the lack of any seasonal water features in the vicinity. Caladenia procera (spider orchid) is typically found on alluvial loamy flats, jarrah/marri/peppermint woodland, dense heath and sedges. The site characteristics within the application area do not represent this preferred habitat as ground cover within the application area is almost non-existent with the exception of introduced grass species. Boronia humifusa is another low growing flowering plant that occurs in open forest. As the ground cover within the application area is predominantly introduced weeds in a Completely Degraded condition, it does not represent preferred habitat and it is therefore unlikely that this species would occur.

Species name	Conservation status	Suitable habitat features ? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	adequate to identify?
Caladenia procera	Т	N	N	Υ	7.5	N/A
Banksia squarrosa subsp. argillacea	P1	N	N	Y	8.4	N/A
Boronia humifusa	P1	N	N	Υ	7.2	N/A
Acacia semitrullata	P4	N	N	Υ	3.65	N/A

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

A.3. Fauna analysis table

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	closest	Are surveys adequate to identify? [Y, N, N/A]
Calyptorhynchus sp. 'white-tailed black cockatoo'	EN	Υ	Υ	11.5	N/A

^{**}Government of Western Australia (2019b)

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	adequate to
Calyptorhynchus baudinii	EN	Υ	Υ	2.74	N/A
Calyptorhynchus latirostris	EN	Υ	Υ	6.81	N/A
Calyptorhynchus banksii naso	VU	Υ	Υ	1.67	N/A

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

Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?				
Environmental value: biological values						
Principle (a): "Native vegetation should not be cleared if it comprises a high level of biodiversity."	Not likely to be at	No				
Assessment:	variance					
Assessment unchanged from CPS 3081/1 Decision Report.						
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."	Not likely to be at variance	No				
Assessment:						
Since the assessment of CPS 3081/1, one dead tree with hollows that may be used for breeding by Black cockatoos has been identified outside the application area to the east. The area proposed to be cleared does contain some foraging and roosting habitat trees for black cockatoos, however, the area immediately surrounding the application area retains large tracts of potential foraging and roosting vegetation in better condition which is protected within conservation estate (approximately 17,202 hectares). As such the vegetation within the application area is not considered necessary for the maintenance or long-term viability of any of the black cockatoo species recorded within the local area.						
Aerial imagery indicates that ecological linkage function is not likely to be compromised as vegetation within the same contiguous patch that surrounds the application areas will be retained, which will provide a stepping-stone to the Jarrahwood State Forest which is located on both sides of the application area.						
Principle (c): "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."	Not likely to be at variance	No				
Assessment: Two threatened flora species have been recorded within the local area which occur on the same soil type as that found in the application area; Banksia squarrosa subsp. argillacea and Caladenia procera (spider orchid). Based on the site characteristics, the preferred habitat features for these species are not present within the application area. It is therefore considered that area proposed to be cleared is unlikely to contain habitat for flora species listed as threatened under the BC Act.						
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."	Not likely to be at variance	No				
Assessment:						
There are no mapped occurrences of state listed Threatened Ecological Communities within the local area.						
Assessment unchanged from CPS 3081/1 Decision Report						
Environmental value: significant remnant vegetation and conservation areas						

Assessment against the clearing principles	Variance level	(ls further consideration required?
<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."		to I at	No
Assessment:	variance		
Assessment has not substantially changed from CPS 3081/1 Decision Report. Current extent of remnant native vegetation in the local area is approximately 64 percent, representing a decrease of approximately 6 percent from the previous decision report.			
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."	Not likely be variance	to I	No
Assessment:			
Assessment unchanged from CPS 3081/1 Decision Report.			
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."		to I	No
Assessment:	variance		
Assessment unchanged from CPS 3081/1 Decision Report.			
Principle (g): "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."		to I	No
Assessment:	variance		
Assessment unchanged from CPS 3081/1 Decision Report.			
<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."	Not likely be variance	to 1 at	No
Assessment:			
Assessment unchanged from CPS 3081/1 Decision Report.			
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."	Not likely be variance	to I	No
Assessment:			
Assessment unchanged from CPS 3081/1 Decision Report.			

Appendix C. Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation's ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Measuring vegetation condition for the South West and Interzone Botanical Province (Keighery, 1994)

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.
Very good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.
Completely degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

Appendix D. Photographs of the vegetation

Photographs provided proponent (Lundstrom, 2021)



Photo 1: Showing wide angle of broader area.



Photo 2: Southern boundary, looking north.



Photo 3: South eastern boundary, looking north west.



Photo 4: Outside north east boundary in the 10-metre buffer are, looking south west.



Photo 5: Northern boundary, looking south east.



Photo 6: North western vegetation, looking south east.



Photo 7 - Tree H1. Located within the 10-metre buffer zone, Dead Jarrah 110-centimetre diameter at breast height.



Photo 8: Tree H1, two hollows with a greater than ten-centimetre entrance diameter.

Appendix E. Sources of information

E.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography Inland Waters Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Offsets Register Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality Flood Risk (DPIRD-007)
- Soil Landscape Land Quality Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping Best Available
- Soil Landscape Mapping Systems
- Wheatbelt Wetlands Stage 1 (DBCA-021)

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

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