



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 9498/1
Permit Holder:	Mr Rodney Alford
Duration of Permit:	From 14 January 2022 to 14 January 2027

The permit holder is authorised to clear *native vegetation* subject to the following conditions of this permit.

PART I – CLEARING AUTHORISED

1. Clearing authorised (purpose)

The permit holder is authorised to clear *native vegetation* for the purpose of maintenance of an existing overgrown access track.

2. Land on which clearing is to be done

Unnamed road reserve (PIN 1382751), Kulikup

3. Clearing authorised

The permit holder must not clear more than 0.34 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

PART II – MANAGEMENT CONDITIONS

4. 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.

5. Weed 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*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no known *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.

6. Clearing not authorised (tree diameter)

The permit holder must not clear any standing trees that have a diameter (measured at 130 centimetres from the base of the tree) of 50 centimeters or greater.

PART III - RECORD KEEPING AND REPORTING

7. Records that must be kept

The permit holder must maintain records relating to the listed relevant matters in accordance with the specifications detailed in Table 1.

Table 1: Records that must be kept

No.	Relevant matter	Specifications
1.	In relation to the authorised clearing activities generally	(a) the species composition, structure, and density of the cleared area; (b) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 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); (e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 4; (f) actions taken to minimise the risk of the introduction and spread of <i>weeds</i> in accordance with condition 5; and (g) actions taken to retain habitat trees in accordance with condition 6.

8. Reporting

The permit holder must provide to the *CEO* the records required under condition 7 of this permit when requested by the *CEO*.

DEFINITIONS

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

Table 2: Definitions

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the clearing 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 clearing permit is subject under section 51H of the EP Act.
fill	means material used to increase the ground level, or to fill a depression.
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.
EP Act	<i>Environmental Protection Act 1986</i> (WA)
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.
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



Meenu Vitarana
A/MANAGER
NATIVE VEGETATION REGULATION

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

22 December 2021

Schedule 1

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

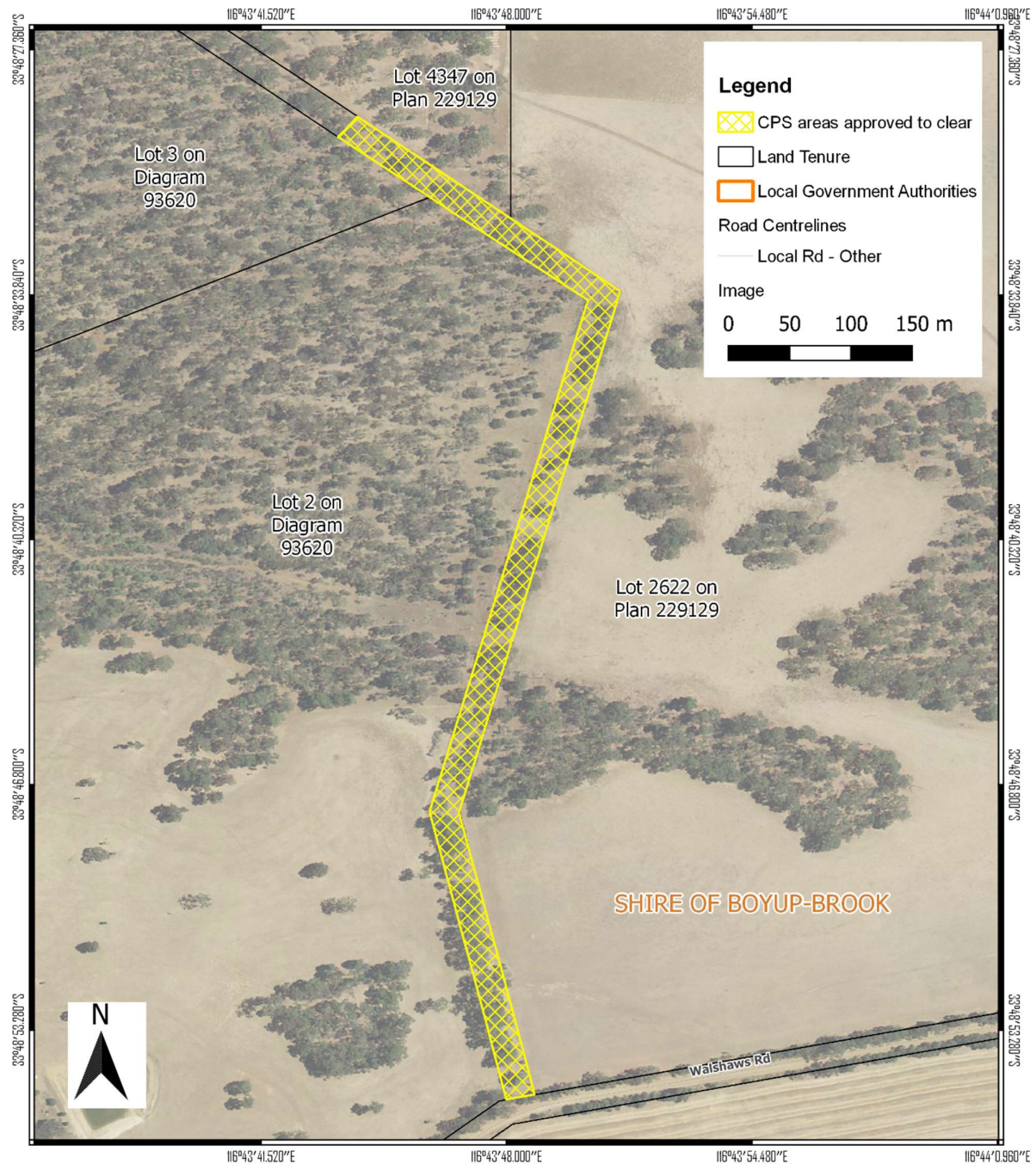


Figure 1: Map of the boundary of the area within which clearing may occur



Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 9498/1
Permit type:	Purpose permit
Applicant name:	Mr Rodney Alford
Application received:	23 November 2021
Application area:	0.34 hectares of native vegetation within a 1.76-hectare footprint
Purpose of clearing:	Maintain an existing overgrown access track
Method of clearing:	Mechanical
Property:	Unnamed Road reserve (PIN 1382751)
Location (LGA area):	Shire of Boyup-Brook
Localities (suburb):	Kulikup

1.2. Description of clearing activities

The vegetation proposed to be cleared is approximately 0.34 hectares within a single contiguous 1.76-hectare footprint (application area) (see Figure 1, Section 1.5). The application area comprises a strip of land located within an Unnamed Road reserve (PIN 1382751) of which, part of the land was previously cleared to allow access from Walshaws Road, Kulikup, to surrounding properties.

The proposal is to selectively clear overgrown vegetation, approximately four meters in width by 850 meters in length (0.34-hectare area) to enable the applicant to maintain the existing access track and prune back tree branches that are impacting access. The applicant will not clear any live trees with a diameter at breast height of 50 centimetres or greater.

1.3. Decision on application

Decision:	Granted
Decision date:	22 December 2021
Decision area:	0.34 hectares of native vegetation within a 1.76-hectare footprint, as depicted in Section 1.5, below.

1.4. Reasons for decision

Background

This clearing permit application was submitted, accepted, assessed and determined in accordance with section 51E of the *Environmental Protection Act 1986* (EP Act) and was received by the Department of Water and Environmental Regulation (the Department) on 23 November 2021 advertised the application for public comment for 7 days and no submissions were received.

The proposal is to selectively clear overgrown vegetation, approximately four meters in width by 850 meters in length (0.34-hectare area) to enable the applicant to maintain the existing access track. The applicant advised (Alford, 2021)

that the application area was previously cleared by the Shire of Boyup-Brook in the early 2000's, as the surrounding land was subdivided into smaller lots from agricultural land to rural properties (Lots 1, 2 and 3 on Diagram 93620, Kulikup). The Unnamed Road reserve (PIN 1382751) was partly cleared to allow for access from Walshaws Road to surrounding properties that run off the road.

Since buying the property in 2004, the applicant has not developed the property (Lot 3 on Diagram 93620, Kulikup) and as a result the existing access track has become overgrown and requires maintaining. Due to funding and resources, the Shire of Boyup-Brook advised the department they could not undertake the maintenance works of the existing track and as such, the applicant applied for a clearing permit in order to undertake the maintenance works of the existing and now overgrown access track (Shire of Boyup-Brook 2021).

Vegetation condition, types and environmental values of the application area was determined from a site inspection conducted by the Department on 8 December 2021 (DWER, 2021).

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix B), relevant datasets (see Appendix G.1), the findings of a site inspection (see Appendix A), 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).

Determination

The Delegated Officer took into consideration that a portion of the application area was previously cleared to allow for access from Walshaws Road. The assessment identified that the proposed clearing has the potential to result in the introduction and spread of weeds into adjacent vegetation, which was assessed to be in a good to completely degraded (Keighery, 1994) condition. The assessment also identified that the clearing footprint may provide suitable habitat trees (with a diameter at breast height (DBH) of 50 centimeters or greater) for conservation significant fauna species (i.e. black cockatoos). Given the small extent of the proposed clearing, the condition of the vegetation within the application area, the abundance of adjacent suitable habitat within the neighbouring property and the applicant's avoidance and minimisation measures, the proposed clearing is not likely to have a significant residual impact on the adjacent vegetation, or any other biological, conservation or land and water resource values.

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 have long-term adverse impacts on environmental values of adjacent or nearby conservation areas or on conservation significant flora, fauna or ecological communities. The Delegated Officer considered that the impacts of the proposed clearing can be minimised and managed to be unlikely to lead to an unacceptable risk to the environment.

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

- avoid, minimise to reduce the impacts and extent of clearing
- implementation of hygiene measures to minimise the risk of the introduction and spread of weeds into adjoining native vegetation
- retain all potential habitat trees that have a diameter at breast height (DBH) of 500 millimeters or greater.

1.5. Site map

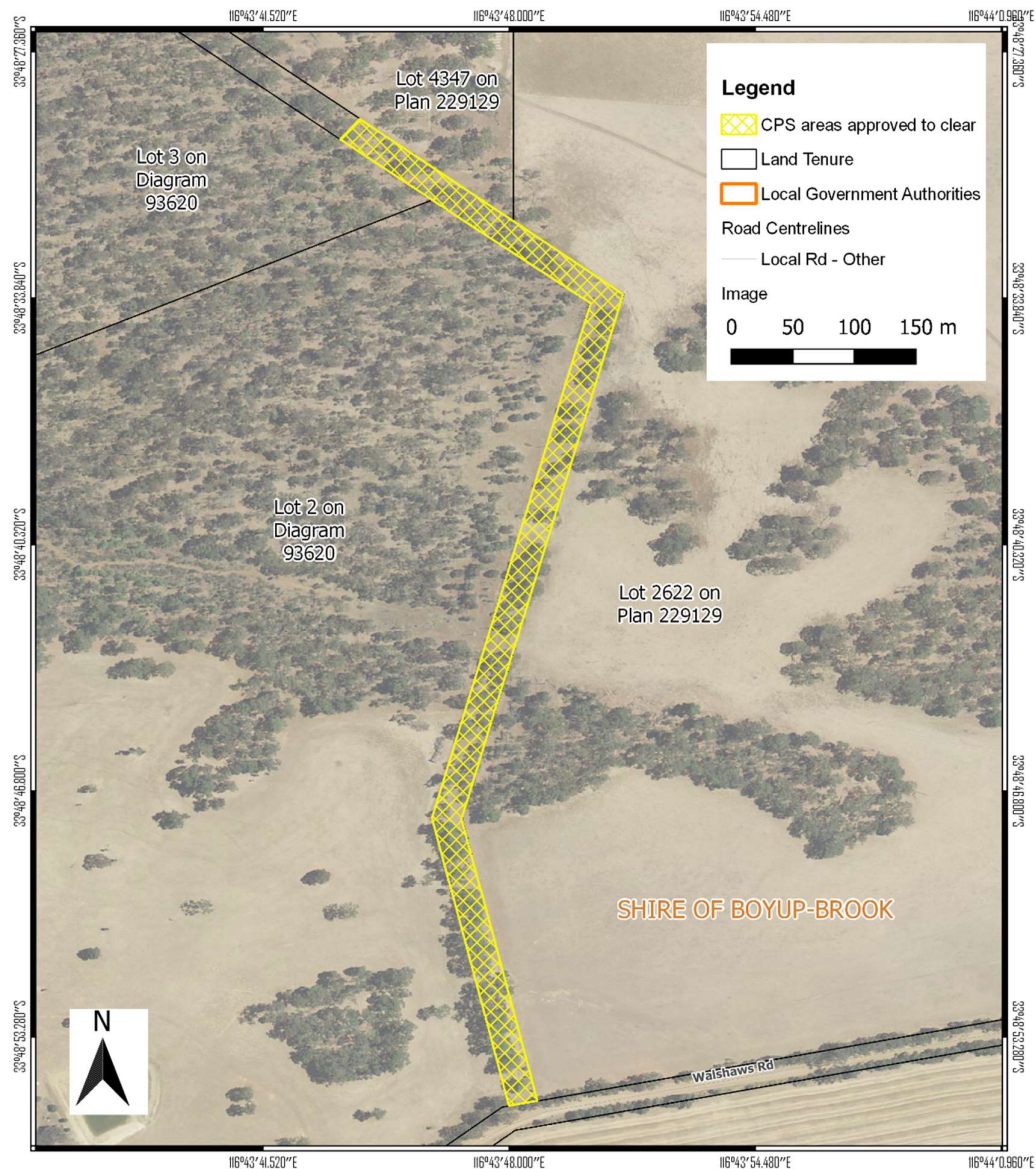


Figure 1 Map of the decision area

The area cross-hatched yellow indicates the area authorised to be cleared under the granted clearing permit.

2 Legislative context

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

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

- the precautionary principle
- the principle of intergenerational equity
- the 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 applicant advised that maintenance of an access track is required to maintain services and connect residents living off the Unnamed Road reserve (PIN 1382751) to Walshaws Road, Kulikup. The applicant has advised the access track was previously cleared with gravel laid down to allow for the thoroughfare access by cars and trucks, with a width of four meters (Alford, 2021).

The applicant advised DWER Officers of the following avoidance and mitigation measures during the site inspection of the application area:

- to selectively clear overgrown native and non-native species that may impact throughfare access
- to maintain the access track, which is approximately four meters in width by 850 meters in length
- to retain potential habitat trees (trees with a DBH of 500 millimeters or greater)
- to avoid and minimise clearing by only clearing, if necessary, regrowth saplings trees
- to prune rather than clear overhanging tree branches where possible
- to retain Banksia tree species within the application area
- to retain dead trees (found laying on the ground), by removing them from the access track
- that machinery will be cleaned at the end of each day to reduce the spread of weeds
- that clearing will be done only when weather conditions are favourable (when it's not too hot and not windy) (DWER, 2021).

Considering the limited extent of clearing and the necessity of the access track, the Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values.

3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix B) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values.

The assessment against the clearing principles (see Appendix C) identified that the impacts of the proposed clearing present a risk to surrounding remnant vegetation in the form of introduced weeds and biological values (fauna – potential black cockatoos habitat trees). 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. Environmental value: Biological values (biodiversity and flora) – Clearing Principles (a) and (c)

Assessment:

No threatened flora taxa have been recorded within the application area. According to available databases, three threatened and eight priority flora taxa have been recorded within the local area of a 10 kilometres radius of the application area. The closest threatened flora taxa recorded is *Eleocharis keigheryi* (Common Spike-sedge) recorded 4.4 kilometres south-east and *Grevillea acropogon* recorded 6 kilometers south-west of the application area. Three priority species *Banksia subpinnatifida* var. *imberbis*, *Daviesia implexa* and *Gastrolobium ovalifolium* may occur within the application area. No Threatened Ecological Communities (TECs) listed under the *Biodiversity Conservation Act 2016* or *Environment Protection and Biodiversity Conservation Act 1999*, or Priority Ecological Communities (PECs), have been mapped or identified within the application area. The closest occurrence critically endangered Claypans with mid dense shrublands of *Melaleuca lateritia* over herbs, located over 21 kilometres to the west of the application area.

The application area has been previously cleared, with no to little native understorey species present as confirmed by a DWER site inspection (DWER, 2021). DWER Officers observed, the application area to be highly disturbed, consisting of mostly bare ground and did not observe high species diversity or richness. The plant assemblages observed within the application area are not consistent with any known TEC/PEC and the vegetation present in the application area is in good to completely degraded (Keighery, 1994) condition. The applicant advised that the

application area was previously cleared and was previously maintained as an existing access track to properties. Noting the above, the application area is not likely provide suitable habitat for conservation significant flora species (Western Australian Herbarium, 1998- ; DWER, 2021).

Conclusion:

Vegetation within the proposed clearing area offers potential foraging habitat to threatened black cockatoo species (discussed in further detail below in 3.2.2). The application area is unlikely to support a high level of species diversity, ecosystem diversity or genetic diversity due to a lack of understorey and history of repeated disturbance, and is unlikely to provide suitable habitat for the above listed flora.

Based on the above, the proposed clearing area is not considered likely to represent habitat for any threatened or priority species, or to be critical for the continuation of these species.

3.2.2. Environmental value: Biological values (fauna) – Clearing Principle (b)

Assessment:

Black cockatoo habitat

Black cockatoo habitat can be considered in terms of breeding habitat, night roosting habitat, and foraging habitat. Black cockatoos will generally forage up to 12 kilometres from an active breeding site (DSEWPac, 2012, DPaW, 2013). Following breeding, they will flock in search of food, usually within six kilometres of a night roost (DPaW, 2011) but may range up to 20 kilometres (Commonwealth of Australia, 2017). Black cockatoo night roosts are usually located in the tallest trees of an area, and near both a food supply and surface water (Commonwealth of Australia, 2017). 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, DSEWPac, 2012).

The application area is mapped within the known distribution area for forest red-tailed black cockatoos (*Calyptorhynchus banksii subsp. naso*) and are within the mapped breeding range of Carnaby's black cockatoo (*Calyptorhynchus latirostris*) and predicted breeding range of Baudin's black cockatoo (*C. baudinii*) (DSEWPac, 2012). Two threatened black cockatoo species have been recorded within the local area, including the forest red-tailed black cockatoo and the Carnaby's cockatoo.

'Breeding habitat' for black cockatoos includes trees of these species that either have a suitable nest hollow or are of a suitable diameter at breast height (DBH) to develop a nest hollow, where suitable DBH for nest hollows is 500 millimetres for most tree species (Commonwealth of Australia, 2012). While breeding, black cockatoos also generally forage within a 6-to-12-kilometre radius of their nesting site (Commonwealth of Australia, 2012). Black cockatoo species, are known to nest in hollows of live and dead trees, including marri (*Corymbia calophylla*) and marrah (*Eucalyptus marginata*), a suitable DBH is 50 centimeters or greater (Commonwealth of Australia, 2012). The main threats identified to the black cockatoos are illegal shooting, habitat loss through land clearing, nest hollow shortage and competition between the species (DEC, 2008).

According to available datasets, there are no roost sites or breeding locations for black cockatoos have been recorded within the local area, with the nearest record for a roost site being over 22 kilometres away and nearest breeding site over 26 kilometres away.

A site inspection of the application area by DWER Officers identified numerous marri and jarrah trees which had a diameter at breast height (DBH) of 500 millimetres or greater (DWER, 2021), which may provide habitat for black cockatoos. It is acknowledged that the potential breeding trees within the application area may also represent suitable foraging habitat for black cockatoo species.

Given breeding pairs of black cockatoos forage within a 6-12 kilometre radius of a breeding site and the amount of remnant vegetation within the local area, it is unlikely that cockatoo breeding is supported within the application area, however, all breeding (habitat) trees have some value. It is noted that the surrounding area has been extensively cleared (north, east and south of the application area). Mature trees have a more reliable feeding resource than juvenile trees, and the retention of these habitat trees within the application area may be beneficial for future habitat for black cockatoos.

Other conservation significant fauna species

The vegetation contained within the application area was observed on the site inspection to be in a good to completely degraded condition, with little to no understorey present and consisting of minimal leaf litter due to previous clearing and grazing disturbances. The ground was mostly bare, containing little intact vegetation structure, with a mix of native and non-native grasses, common native species and minor regrowth of Marri saplings. Given the condition and structure of the vegetation, it is unlikely that the application area would contain suitable habitat for other conservation significant fauna species (DWER, 2021).

Conclusion:

Based on the above assessment, the area proposed to be cleared may impact potential habitat trees for black cockatoos. The impacts of the proposed clearing on potential habitat trees can be managed by the retention of potential habitat trees (with a DBH of 50 centimetres or greater) for black cockatoo. The impacts of the proposed clearing can be managed to be environmentally acceptable and therefore no significant residual impact is expected.

Conditions:

To address the risks clearing on habitat for black cockatoos, a fauna management condition, requiring the retention of potential black cockatoo habitat trees and weed management to minimise impacts to nearby foraging habitat will be imposed on the clearing permit.

3.3. Relevant planning instruments and other matters

The Shire of Boyup-Brook (the Shire) advised the Department that they approve of the proposed clearing and provided a letter of authority. The Shire did not have any objections to the proposed clearing (Shire of Boyup-Brook, 2021).

According to available databases, no Aboriginal sites of significance have been mapped within the application area.

End

Appendix A. DWER Site Inspection

Summary of comments

8 December 2021 – DWER Site Inspection

An inspection of the application area, undertaken by officers of the Department of Water and Environmental Regulation (DWER) on 8 December 2021, determined that part of the application area has been previously cleared for the creation of an access track to properties that had been subdivided.

DWER Officers met the applicant on site to inspect the application area. The applicant noted that upon ground truthing, the application area submitted, was not accurate. DWER Officers advised that a revised application area would be mapped after the inspection and discussed with the applicant for further consideration.

The site inspection did not identify tree species comprising of nesting habitat for the Carnaby's Cockatoo within the proposed clearing area, however it was observed that some trees may provide suitable foraging habitat within the clearing footprint (DWER, 2021). Given the extent of the application area the vegetation is likely to provide minimal foraging habitat for black cockatoos and is unlikely to comprise significant habitat for this species.

The applicant also committed to only selectively clear overgrown native and non-native species that are impacting ground cover and throughfare access, pruning branches of trees back where possible (DWER, 2021). The applicant additionally committed to only clear to the extent of the existing access track, which is approximately four meters in width by 850 meters in length. The applicant advised he will retain any trees that have the potential for habitat values for black cockatoos (trees with a diameter breast height of 50 centimeters or more). The applicant advised that he would also retain any dead trees (found laying on the ground), by removing them from the access track but keeping them within the application area (Alford, 2021).

Appendix B. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is within an existing access track (Unnamed Road reserve (PIN 1382751)) to the applicant's property that connects from Walshaws Road. The application area is part of a previously cleared area. The application area is approximately 38 kilometres east of the Boyup Brook townsite. It is bordered by remnant native vegetation to the west and by a highly cleared landscape with some patches of remnant vegetation to the north, east and south. The historical land practices within the local area are agriculture, namely cropping and sheep grazing. The proposed clearing area is approximately 0.34 hectares (four meters in width by 850 meters in length) within 1.76 hectare area, within the intensive land use zone of Western Australia, located within the Shire of Boyup Brook. Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 30.46 per cent (2,649.72 hectares) of the original native vegetation cover.
Ecological linkage	The application area does not form part of any formal mapped linkage, given that the application area borders an expansive tract of remnant vegetation to the west and also borders areas of land that have been extensively cleared (to the north, east and south). The application area is not likely to act as a significant ecological linkage.
Conservation areas	The proposed clearing area does not occur within any conservation areas. There are four reserves under DBCA tenure, the closest of which is Red Hill Nature Reserve, located approximately 1.48 kilometres south of the application area (DBCA-012, DBCA-026).
Vegetation description	Photographs supplied by the applicant and from the Department's site inspection, indicate the vegetation within the application area consists of regrowth of marri, a mix of native and non-native grasses, and common native species (Alford, 2021 and DWER, 2021). Representative photographs are available in Appendix E and Appendix DF. This is consistent with the mapped vegetation type:

Characteristic	Details
	Darling Plateau (Sandalwood) (SD 254), which is described as Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> with some <i>Corymbia calophylla</i> and <i>Eucalyptus wandoo</i> over <i>Hakea prostrata</i> and <i>Dryandra sessilis</i> on steeper uplands in the semiarid zone (Shepherd et al, 2001). The mapped vegetation type retains approximately 46.46 per cent of the original extent (Government of Western Australia, 2019).
Vegetation condition	Photographs supplied by the applicant (Alford, 2021) and the Department's site inspection (DWER, 2021) indicate the vegetation within the application area is in good to completely degraded (Keighery, 1994) condition, described as: - 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. - 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 D. Representative photographs are available in Appendix E and Appendix DF.
Climate and landform	The climate of the area is warm and temperate (Mediterranean). The mean annual rainfall and the areal actual evapotranspiration within the application area are both mapped as 600 millimeters (DPIRD, 2019). The topography of the application area is relatively flat and varies slightly between 300 metres Australian Height Datum (AHD) to 310 metres AHD.
Soil description	Three different soil types are mapped, which include: 253EuKUi : Kulikup ironstone gravel flats (1/8's of application area), described as moderately well drained to poorly drained gravels (DPIRD, 2019); 253EuLkK: Lukin shallow Kulikup Phase (2/8's of application area), described as shallow valleys with gentle slopes incised in to Eocene sedimentary deposits. Relief 5-20 m, slopes 3-10%. Soils are gravels and sands; and 253EuSD: Sandalwood Subsystem (5/8's of application area), described as Low hills (40-80 m) rising above the general landscape, slopes 5-20%. Soils are loamy and sandy gravels.
Land degradation risks	There are three different soil subsystems mapped within the application area, which include: - Sandalwood Subsystem (253EuSD) – noted to be over 5/8's of the application area; - Lukin shallow Kulikup Phase (253EuLkK) – noted to be over 2/8's of the application area; and - Kulikup ironstone gravel flats (253EuKUi) – only over 1/8's of the application area (DPIRD, 2019). The soil subsystems mapped in the application area have a moderate to high risk of wind erosion, subsurface acidification and phosphorus export. The remainder of the mapped soil types have low land degradation risk.
Waterbodies	The desktop assessment and aerial imagery indicates that one minor, non-perennial watercourse (a tributary to the Blackwood River) transect the lower section of the application area and another non-perennial watercourse (a tributary of the Balgarup River) is approximately 450 meters east of the application area (DBCA-045).
Hydrogeography	The application area does not intersect any proclaimed groundwater, surface water or any Public Drinking Water Source Areas (DWER-034).
Flora	According to available data sources, there are no records of conservation significant flora within the application area. The desktop assessment identified 20 records of threatened and priority flora taxa within the local area (10 kilometres).

Characteristic	Details
	Of these, a likelihood of analysis identified three priority flora species that may occur in the application area based on habitat suitability and soil type, which are further discussed in section A.2 and section 3.2.1.
Ecological communities	There are no threatened ecological communities (TEC) or priority ecological communities (PEC) in the local area or mapped within the application area. The nearest recorded TEC/PEC is the Claypans with mid dense shrublands of <i>Melaleuca lateritia</i> over herbs, approximately 21 kilometres west of the application area.
Fauna	According to available data sources, there are no records of conservation significant fauna within the application area. Spatial data identifies 19 records from 11 species of conservation significant fauna within the local area. Of these, a likelihood analysis identified five species that may occur within the application area based on habitat suitability, these are further discussed in section A.3 and section 3.2.1.

A.1 Vegetation extent

	Pre-Europe an 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	69.74	37.14
Vegetation complex					
Mattiske vegetation complex Darling Plateau (Sandalwood) (SD 254) **	8,963.66	4,164.25	46.46	865.70	9.66
Local area					
10km radius	8,700.30	2,649.72	30.46	-	-

*Government of Western Australia (2019a)

**Government of Western Australia (2019b)

A.2 Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix G.1), and the distribution and extent of existing records, impacts to the following conservation significant flora required further consideration.

Species name	Conservation status	Suitable habitat features ? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records in local area (total)	Did site inspection identify? [Yes, No, N/A]
<i>Banksia subpinnatifida</i> var. <i>imberbis</i>	P	Y	Y	Y	2.4	4	No
<i>Daviesia implexa</i>	P	Y	Y	Y	5.8	2	No
<i>Gastrolobium ovalifolium</i>	P	Y	Y	Y	2.8	1	No

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

A.3 Fauna analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix G.1), and the distribution and extent of existing records, impacts to the following conservation significant flora required further consideration.

	Pre-Europe an 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
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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 in local area (total)	Did site inspection identify? [Yes, No, N/A]
<i>Cacatua pastinator pastinator</i> (Muir's corella)	CD	Y	Y	6.2	2	No
<i>Calyptorhynchus banksii naso</i> (Forest red-tailed black cockatoo)	VU	Y	Y	5.8	1	No
<i>Calyptorhynchus latirostris</i> (Carnaby's cockatoo)	EN	Y	Y	1.3	1	No
<i>Notamacropus Irma</i> (Western brush wallaby)	P	Y	Y	3.4	1	No
<i>Phascogale tapoatafa wambenger</i> (South-western brush-tailed phascogale)	CD	N	Y	4.3	7	No

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority, CD: Species of special conservation interest (conservation dependent fauna); OS: Other specially protected fauna

Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<u>Principle (a):</u> "Native vegetation should not be cleared if it comprises a high level of biodiversity." <u>Assessment:</u> A total of 20 conservation signification records of 11 flora species were found in the local area. Of these, a likelihood of analysis identified three priority flora species (<i>Banksia subpinnatifida</i> var. <i>imberbis</i>, <i>Daviesia implexa</i> and <i>Gastrolobium ovalifolium</i>) that may occur in the application area based on habitat suitability and soil type. However, given the area proposed to be cleared compromises of degraded karri and marri, that have been subject to previous clearing and disturbance, along with weed invasion, the application area is not considered to comprise a high level of biodiversity. Detailed assessment of the potential environmental impacts is included under section 3.2.1, above.	Not likely to be at variance	Yes <i>Refer to Section 3.2.1 above.</i>
<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." <u>Assessment:</u> The application area may provide foraging habitat for black cockatoos. A number of large trees (with a DBH of 50 centimetres or more) were observed within the application area. Detailed assessment of the potential environmental impacts is included under section 3.2.2, above.	May be at variance	Yes <i>Refer to Section 3.2.2, above.</i>

Assessment against the clearing principles	Variance level	Is further consideration required?
<u>Principle (c):</u> <i>"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."</i> <u>Assessment:</u> Spatial data indicates that no records of conservation significant flora occur within the application area. 20 records of threatened and priority flora taxa are recorded within the local area (10 kilometres). No threatened flora or habitat for locally known threatened flora was observed within the application area (DWER, 2021). Based on the evidence above, the application area is not likely to include or be necessary for the maintenance of threatened flora.	Not likely to be at variance	Yes <i>Refer to Section 3.2.1 above.</i>
<u>Principle (d):</u> <i>"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."</i> <u>Assessment:</u> The application area does not intersect any Threatened Ecological Communities (TEC) listed under the BC Act or EPBC Act. The closest TEC to the application areas is approximately 21 kilometers to the west, which is the Claypans with mid dense shrublands of <i>Melaleuca lateritia</i> over herbs. Photographs supplied by the applicant and a site inspection (see Appendix A), indicate the vegetation is not consistent with any known TEC. Based on the evidence above, the application area is not likely to include or be necessary for the maintenance of a threatened ecological community.	Not likely to be at variance	No
Environmental value: significant remnant vegetation and conservation areas		
<u>Principle (e):</u> <i>"Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."</i> <u>Assessment</u> The mapped vegetation type (South-West Forest association (Darling Plateau (Sandalwood) (SD 254))) is well represented (46.46 per cent of its pre-European extent). The vegetation proposed to be cleared is in a good to completely degraded (Keighery, 1994) condition and is no longer representative of the mapped vegetation complex. The local area retains approximately 30.46 per cent native vegetation cover and the application area represents 0.004 per cent of the local coverage. The vegetation proposed to be cleared is not part of an ecological linkage, is small, do not comprise high biodiversity values or represent significant habitat for conservation significant flora or fauna. Given the above the vegetation within the application area is not likely to be significant as a remnant in an extensively clearing landscape and is not likely to be at variance to this principle.	Not likely to be at variance	No
<u>Principle (h):</u> <i>"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."</i> <u>Assessment:</u> The nearest conservation area (Red Hill Nature Reserve) is approximately 1.48 kilometres south of the application area. The proposed clearing is not likely to	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
directly or indirectly impact the environmental values of nearby conservation areas.		
Environmental value: land and water resources		
<u>Principle (f):</u> <i>"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."</i> <u>Assessment:</u> A portion of the application area (0.02 hectares) intersects a mapped non-perennial watercourse (a tributary to the Blackwood River) however, a site inspection did not identify any riparian vegetation within the application area. Given the above, the proposed clearing is not likely to impact on any vegetation growing in, or in association with a watercourse or wetland.	Not likely to be at variance	No
<u>Principle (g):</u> <i>"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."</i> <u>Assessment:</u> The three mapped soil types within the application area are noted to be highly susceptible to wind and water erosion and subsurface acidification. A site inspection by DWER Officers did not observe evidence of land degradation within the application area. Noting the extent of proposed clearing and the condition of the vegetation, the proposed clearing is not likely to have an appreciable impact on land degradation.	Not likely to be at variance	No
<u>Principle (i):</u> <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."</i> <u>Assessment:</u> A portion of the application area (0.02 hectares) intersects a mapped non-perennial watercourse (a tributary to the Blackwood River). A site inspection by DWER Officers did not find any riparian vegetation or surface water expression within the application area (DWER, 2021a) Given the extent of the proposed clearing, the absence of surface water expressions within the application area and that clearing does not involve groundwater, the proposed clearing is unlikely to impact surface or ground water quality.	Not likely to be at variance	No
<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> <u>Assessment:</u> There is one minor, non-perennial watercourse (a tributary to the Blackwood River) that transects the application area (0.02 hectares). Given the extent and the type of the clearing and the mapped soils and topographic contours within and surrounding the application area do not indicate that the proposed clearing is likely to cause or exacerbate the incidence or intensity of flooding or waterlogging.	Not likely to be at variance	No

Appendix C. Vegetation condition rating scale

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

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

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

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.
Very good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.
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.



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Appendix D. Photographs of the vegetation provided by the applicant



Figures 2 to 7 - Photographs of the vegetation within the application area (Alford, 2021)



Figures 8 to 14 - Photographs of the vegetation within the application area (Alford, 2021)

Appendix E. Photographs from DWER site inspection



Figures 15 to 16 - Representative DWER site inspection photographs (DWER, 2021)



Figures 17 to 22 - Representative DWER site inspection photographs (DWER, 2021)



Figures 23 to 28 - Representative DWER site inspection photographs (DWER, 2021)



Figures 29 to 32 - Representative DWER site inspection photographs (DWER, 2021)

Appendix G. Sources of information

G.1. GIS databases

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

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

G.2. References

Alford, R (2021) *Referral application and supporting information REF 9480/1*, received 5 November 2021 (DWER Ref: DWERDT524168).

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

Department of Environment and Conservation (DEC) (2008) *Forest black cockatoo (Baudin's cockatoo, *Calyptorhynchus baudinii*, and forest red-tailed black cockatoo, *Calyptorhynchus banksii naso*) Recovery Plan*. Department of Environment and Conservation, Canberra.

Department of Environment Regulation (DER) (2013). *A guide to the assessment of applications to clear native vegetation*. Perth. Available from: https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf

Department of Parks and Wildlife (Parks and Wildlife) (2013) *Carnaby's cockatoo (*Calyptorhynchus latirostris*) Recovery Plan*. Department of Parks and Wildlife, Perth, Western Australia.

Department of Parks and Wildlife (DPAW) (2011) *Plants Used by Carnaby's Black Cockatoo*. List prepared by Christine Groom. Western Australian Department of Parks and Wildlife (now the Department of Biodiversity, Conservation and Attractions). Perth. Western Australia.

Department of Primary Industries and Regional Development (DPIRD) (2019) *NRInfo Digital Mapping. Department of Primary Industries and Regional Development*. Government of Western Australia. URL: <https://maps.agric.wa.gov.au/nrm-info/> (accessed 26 November 2021).

Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC) (2012) *EPBC Act referral guidelines for three threatened black cockatoo species: Carnaby's cockatoo (Endangered) *Calyptorhynchus latirostris*, Baudin's cockatoo (Vulnerable) *Calyptorhynchus baudinii*, Forest red-tailed black cockatoo (Vulnerable) *Calyptorhynchus banksii naso**. Department of Sustainability, Environment, Water, Population and Communities (now the Department of Environment and Energy), Canberra.

Department of Water and Environmental Regulation (DWER) (2019) *Procedure: Native vegetation clearing permits*. Joondalup. Available from: https://dwer.wa.gov.au/sites/default/files/Procedure_Native_vegetation_clearing_permits_v1.PDF.

- Department of Water and Environmental Regulation (DWER) (2021) *Site Inspection Report for Clearing Permit Application CPS 9498/1*, 8 December 2021. Department of Water and Environmental Regulation, Western Australia (DWER Ref: A2073622).
- Government of Western Australia (2019) *2018 South West Vegetation Complex Statistics. Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions, Perth, <https://catalogue.data.wa.gov.au/dataset/dbca>
- Government of Western Australia (2019) *2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>
- Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Mattiske, E.M. and Havel, J.J. (1998) *Vegetation Complexes of the South-west Forest Region of Western Australia*. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) *Native Vegetation in Western Australia, Extent, Type and Status*. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- Shire of Boyup-Brook (2021) *Authority Letter for clearing permit application CPS 9498/1*, received 5 November 2021 (DWER Ref: A2066784).
- Western Australian Herbarium (1998-). *FloraBase - the Western Australian Flora*. Department of Biodiversity, Conservation and Attractions, Western Australia. <https://florabase.dpaw.wa.gov.au/> (Accessed 25 November 2021).